

# VRS™ and DRS™ Fluorescent Luminaires

## Enclosed and Gasketed. Suitable for Use in Wet Locations

32 W, 40 W and 60 W Two- and Three-Lamp Fixtures.

**VRS:**  
Class I, Division 2, Groups A, B, C, D

**DRS:**  
Class II, Division 1 and 2, Groups F, G  
Class III

### Applications

- VRS
  - Enclosed and gasketed fixtures for use where vapors, moisture, dirt or corrosive atmospheres are encountered.
  - Corrosion-resistant polyester powder coating protects against corrosive atmospheres.
- DRS
  - Dust-ignitionproof fixtures for use where ignitable amounts of dust are present from handling such products as grain, flour, sugar, starch and textiles.
  - Suitable for use in Class II and III, Division 1, classified areas.
  - Corrosion-resistant finish prolongs fixture life and retains fixtures reflectivity longer.

### Features

- Choice of mountings: pendant and feed thru are standard, angle bars for chain suspension, or angle brackets (up to 45°) for wall or ceiling mounting.
- Thick 1/4" clear tempered glass lens protects against possible broken glass from lamps.
- VRS and DRS fixtures are supplied with the following ballast options:
  - Class P low energy (E) ballasts, equipped with an automatic thermally activated protective device. They offer protection against excessive voltage, internal ballast short circuiting, inadequate lamp maintenance and improper fixture application
- High-temperature nickel cadmium battery has a life expectancy of 7 to 10 years.
- Battery charger indicator light and test switch are mounted inside the enclosure and visible through the clear lens.
- Heavy duty telescoping lampholders.
- Low operating cost provides more lumens per Watt than incandescent.
- Easy cleaning one-piece, seamless welded construction virtually eliminates dust and moisture accumulation.

### Standard Materials

- Reflector housings: 20-gauge steel
- Door frame: 16 gauge steel with clear glass
- Door clamps: heavy-duty plated spring steel
- Suspension hubs: 1/2" die-cast aluminum
- Lampholders: white urea plastic
- Gaskets: VRS – neoprene; DRS – fiberglass

### Standard Finishes

- Reflector housings: VRS – white polyester powder coating; DRS – white polyester powder coating
- Door frame: zinc electroplate
- Door clamps, suspension hubs and lampholders: natural finish

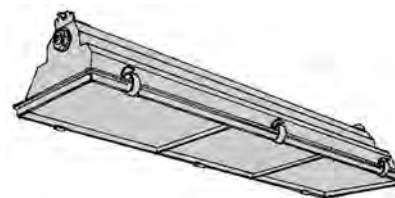
### Options

- Individually fused ballast. Suffix -F.
- Emergency battery pack, Suffix -EL ①.
- Emergency battery pack capability in moments of power interruption. Luminaire automatically switches to emergency mode, keeping one lamp illuminated for a minimum of 90 minutes. When AC power is restored, battery automatically recharges in 24 hours. Initial light output is 600-700 lumens.

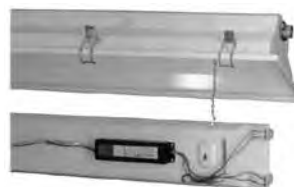


VRS Enclosed and Gasketed DRS Dust-Ignition Proof

### Illustrated Features



Three plated steel latches on each side of door assure integrity of fixture for areas as classified.



Pan mounted ballast and sockets with safety chain provide quick, safe maintenance.

### Certifications and Compliances

- UL Standard: UL 1598, UL 844
- UL Listed: E10794

① Fixtures with emergency ballast are not recommended where the ambient temperature may fall below 32 °F/0 °C for extended periods.

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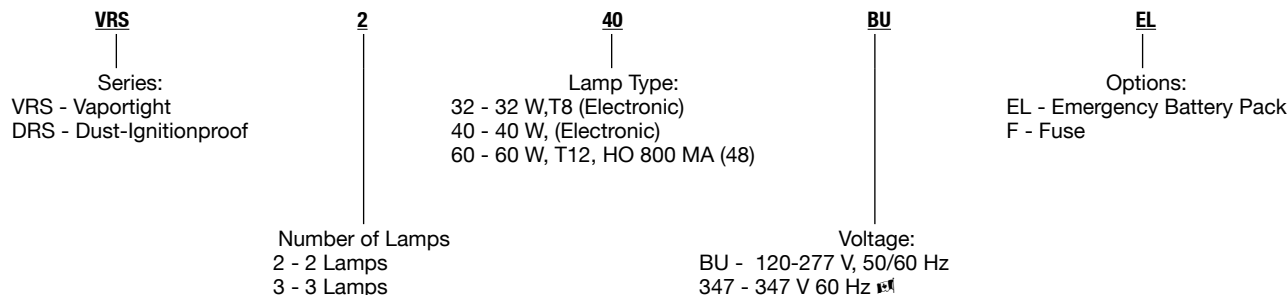
32 W, 40 W and 60 W Two- and Three-Lamp Fixtures.

**VRS:**  
Class I, Division 2, Groups A, B, C, D

**DRS:**  
Class II, Division 1 and 2, Groups F, G  
Class III

Order using catalog numbering guide below or select catalog number from tables on following pages.

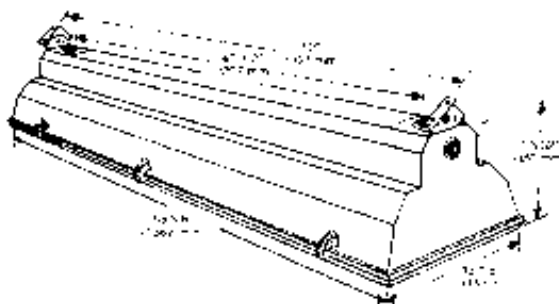
### Catalog Numbering Guide For VRS And DRS Non-Metallic Fluorescent Lighting Fixtures



### Technical Data: Thermal Performance of VRS and DRS Fixtures

| Fixture | Quantity | Lamp |          | Ambient Temp °F/°C | "T" Numbers | Hazardous Classification            |
|---------|----------|------|----------|--------------------|-------------|-------------------------------------|
|         |          | Watt | Type     |                    |             |                                     |
| VRS232  | 2        | 32   | 265MA-RS | 104/40             | T-4A        | Class I, Division 2, Groups A,B,C,D |
| VRS332  | 3        | 32   | 265MA-RS | 104/40             | T-4A        | Class I, Division 2, Groups A,B,C,D |
| VRS240  | 2        | 40   | 430MA-RS | 104/40             | T-4A        | Class I, Division 2, Groups A,B,C,D |
| VRS340  | 3        | 40   | 430MA-RS | 104/40             | T-4A        | Class I, Division 2, Groups A,B,C,D |
| VRS260  | 2        | 60   | 800MA-HO | 77/25              | T-3C        | Class I, Division 2, Groups A,B,C,D |
| DRS232  | 2        | 32   | 265MA-RS | 77/25              | T-6         | Class II, Division 1 & 2 Groups F,G |
| DRS332  | 3        | 32   | 265MA-RS | 77/25              | T-6         | Class II, Division 1 & 2 Groups F,G |
| DRS240  | 2        | 40   | 430MA-RS | 77/25              | T-4         | Class II, Division 1 & 2 Groups F,G |
| DRS340  | 3        | 40   | 430MA-RS | 77/25              | T-6         | Class II, Division 1 & 2 Groups F,G |
| DRS260  | 2        | 60   | 800MA-HO | 77/25              | T-6         | Class II, Division 1 & 2 Groups F,G |

### Vaportight Adjustable Hanger or Aligner – Iron Outlet Plugs



- Suitable for use in locations where equipment is exposed to the deteriorating effects of non-combustible atmospheres containing corrosive fumes, vapors, dust, smoke and/or moisture.
- Range of adjustment is 45°. Two-piece ball type cast iron body; gasket sealed at the adjustable ball joint. Maximum overall length is 53-5/8 inches. Finish is baked white paint over electroplating.
- These iron plugs are for closing tapped outlets in explosion-proof boxes. Plugs are electroplated and finished in baked aluminum paint. A socket head is provided for square wrenches.

CSA Certification Only.

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32 W, 40 W and 60 W Two- and Three-Lamp Fixtures.

**VRS:**  
Class I, Division 2, Groups A, B, C, D

**DRS:**  
Class II, Division 1 and 2, Groups F, G  
Class III

| Number of Lamps ②                                                                       | Lamp Watts | Lamp Type | Unput Volts | Freq. (Hz) | Ballast Type | Catalog Number  |
|-----------------------------------------------------------------------------------------|------------|-----------|-------------|------------|--------------|-----------------|
| <b>VRS 32 W, 40 W and 60 W Fixtures Furnished with 1/4" Clear Tempered Glass Lens ①</b> |            |           |             |            |              |                 |
| 2                                                                                       | 32         | T8        | 120-277     | 50/60      | Electronic   | <b>VRS232BU</b> |
| 2                                                                                       | 40         | T12       | 120-277     | 50/60      | Electronic   | <b>VRS240BU</b> |
| 2                                                                                       | 60         | T12       | 120-277     | 50/60      | Electronic   | <b>VRS260BU</b> |
| 3                                                                                       | 32         | T8        | 120-277     | 50/60      | Electronic   | <b>VRS332BU</b> |
| 3                                                                                       | 40         | T12       | 120-277     | 50/60      | Electronic   | <b>VRS340BU</b> |
| <b>DRS 32 W, 40 W and 60 W Fixtures Furnished with 1/4" Clear Tempered Glass Lens</b>   |            |           |             |            |              |                 |
| 2                                                                                       | 32         | T8        | 120-277     | 50/60      | Electronic   | <b>DRS232BU</b> |
| 2                                                                                       | 40         | T12       | 120-277     | 50/60      | Electronic   | <b>DRS240BU</b> |
| 2                                                                                       | 60         | T12       | 120-277     | 50/60      | Electronic   | <b>DRS260BU</b> |
| 3                                                                                       | 32         | T8        | 120-277     | 50/60      | Electronic   | <b>DRS332BU</b> |
| 3                                                                                       | 40         | T12       | 120-277     | 50/60      | Electronic   | <b>DRS340BU</b> |

OPTIONS: Add suffix **-F** for individually fused ballast. Add suffix **-EL** for emergency battery pack. (For 50Hz with **-EL** suffix, consult factory for certifications.)

① Consult factory for clear high-impact acrylic lens. UL Listed for Class I, Division 2, Groups A, B, C, D; suitable for use in locations exposed to moisture or non-combustible gases.

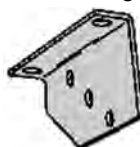
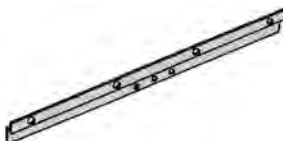
② Lamps not furnished with fixture.

③ Low temperature ballast (-20 °F/-29 °C starting) provided as standard.

# VRS™ and DRS™ Fluorescent Luminaires

Enclosed and Gasketed. Suitable for Use in Wet Locations

32 W, 40 W and 60 W Two- and Three-Lamp Fixtures.

|                                                                                     |                                                                                     | Description                                                                                               | Catalog Number |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|----------------|
| 45° Adjustable Brackets                                                             |                                                                                     |                                                                                                           |                |
|    |    | Two “L-type” brackets with gaskets – adjustable to 45° in 5° increments for “custom” illumination spread. | DRKHN          |
| 45° Fixed Mounting Brackets                                                         |                                                                                     |                                                                                                           |                |
|    |    | Two “L-type” brackets with gaskets for wall or ceiling mounting – provides wide-spread illumination.      | DRAGN          |
| Angle Bars                                                                          |                                                                                     |                                                                                                           |                |
|    |   | Two heavy-duty bars with holes for chain suspension of fixtures.                                          | DRCXN          |
| Lens and Door Frame                                                                 |                                                                                     |                                                                                                           |                |
|  |                                                                                     | Lens and door frame                                                                                       | VRSLENS        |
|                                                                                     |                                                                                     | Lens and door frame                                                                                       | DRSLENS        |
| Sockets – Lampholders                                                               |                                                                                     |                                                                                                           |                |
|  |  | 32- and 40 Watt Fixed-end lampholder (Med. Bi-pin)                                                        | VRSDRS40SS0C   |
|                                                                                     |                                                                                     | 32- and 40 Watt Plunger-end lampholder (Med. Bi-pin)                                                      | VRSDRS40CS0C   |
|                                                                                     |                                                                                     | 60 Watt Fixed-end lampholder (High Output)                                                                | VRSDRS60SS0C   |
|                                                                                     |                                                                                     | 60 Watt Plunger-end lampholder (High Output)                                                              | VRSDRS60CS0C   |
|                                                                                     |                                                                                     | * Each lamp has a Fixed and Plunger Lampholder                                                            |                |
| Hubs                                                                                |                                                                                     |                                                                                                           |                |
|  |  | Side and Top suspension hubs                                                                              | VRSDRSHUB      |

Lighting

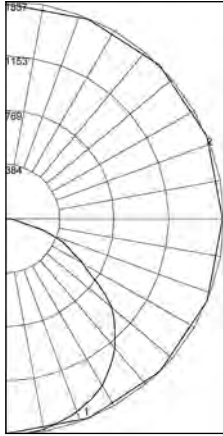
LIGHTING: ENCLOSED AND GASKETED – AREA – FLUORESCENT

# VRS™ and DRS™ Fluorescent Luminaire Photometric Data

Enclosed and Gasketed. Suitable for Use in Wet Locations

32 W, 40 W and 60 W Two- and Three-Lamp Fixtures.

| Zone    | Lumens | Total Luminaire Efficiency = 73.5% |                         |
|---------|--------|------------------------------------|-------------------------|
| 0-10    | 145.72 | CIE Type – Direct                  |                         |
| 10-20   | 421.76 | Plane                              | Spacing Criteria        |
| 20-30   | 651.35 |                                    |                         |
| 30-40   | 798.47 | 0-180                              | 1.28                    |
| 40-50   | 824.90 | 90-270                             | 1.34                    |
| 50-60   | 701.76 | Diagonal                           | 1.44                    |
| 60-70   | 498.35 | Zonal Lumen Summary                |                         |
| 70-80   | 189.17 |                                    |                         |
| 80-90   | 30.32  | Zone                               | Lumens % Lamp % Fixture |
| 90-100  | 0.00   | 0-30                               | 1218.83 21.0 28.6       |
| 100-110 | 0.00   | 0-40                               | 2017.30 34.8 47.3       |
| 110-120 | 0.00   | 0-60                               | 3543.96 61.1 83.2       |
| 120-130 | 0.00   | 0-90                               | 4261.81 73.5 100.0      |
| 130-140 | 0.00   | 90-120                             | 0.00 0.0 0.0            |
| 140-150 | 0.00   | 90-130                             | 0.00 0.0 0.0            |
| 150-160 | 0.00   | 90-150                             | 0.00 0.0 0.0            |
| 160-170 | 0.00   | 90-180                             | 0.00 0.0 0.0            |
| 170-180 | 0.00   | 180-0                              | 4261.81 73.5 100.0      |



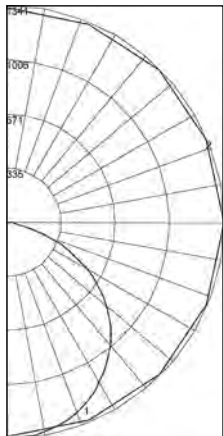
REPORT NUMBER: **VRS232**  
Lamps: Two 32 W Fluorescent Vaportightproof

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

| % Ceiling | Rcc | 80 |    |    |    | 70 |    |    |    | 50 |    |    |    | 30 |    |    |    | 10 |    |    |    | 0  |
|-----------|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| % Walls   | Rw  | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0  |
| 0         | 87  | 87 | 87 | 87 | 87 | 85 | 85 | 85 | 85 | 82 | 82 | 82 | 78 | 78 | 78 | 75 | 75 | 75 | 73 | 73 | 73 | 73 |
| 1         | 81  | 77 | 74 | 72 | 72 | 79 | 76 | 73 | 71 | 73 | 70 | 68 | 70 | 68 | 66 | 67 | 66 | 64 | 63 | 63 | 63 | 63 |
| 2         | 74  | 68 | 63 | 59 | 57 | 72 | 66 | 62 | 58 | 64 | 60 | 57 | 62 | 58 | 56 | 59 | 57 | 55 | 53 | 53 | 53 | 53 |
| 3         | 67  | 60 | 54 | 49 | 47 | 65 | 59 | 53 | 49 | 56 | 52 | 48 | 54 | 51 | 47 | 53 | 49 | 46 | 45 | 45 | 45 | 45 |
| 4         | 62  | 53 | 47 | 42 | 40 | 60 | 52 | 46 | 42 | 50 | 45 | 41 | 49 | 44 | 41 | 47 | 43 | 40 | 38 | 38 | 38 | 38 |
| 5         | 57  | 47 | 41 | 36 | 34 | 55 | 47 | 41 | 36 | 45 | 40 | 36 | 44 | 39 | 35 | 42 | 38 | 35 | 33 | 33 | 33 | 33 |
| 6         | 52  | 43 | 36 | 32 | 30 | 51 | 42 | 36 | 31 | 41 | 35 | 31 | 39 | 35 | 31 | 38 | 34 | 31 | 29 | 29 | 29 | 29 |
| 7         | 48  | 39 | 32 | 28 | 26 | 47 | 38 | 32 | 28 | 37 | 32 | 28 | 36 | 31 | 27 | 35 | 31 | 27 | 26 | 26 | 26 | 26 |
| 8         | 45  | 35 | 29 | 25 | 23 | 44 | 35 | 29 | 25 | 34 | 28 | 25 | 33 | 28 | 25 | 32 | 28 | 24 | 23 | 23 | 23 | 23 |
| 9         | 42  | 32 | 26 | 22 | 20 | 41 | 32 | 26 | 22 | 31 | 26 | 22 | 30 | 26 | 22 | 30 | 25 | 22 | 21 | 21 | 21 | 21 |
| 10        | 39  | 30 | 24 | 20 | 18 | 39 | 29 | 24 | 20 | 29 | 24 | 20 | 28 | 23 | 20 | 27 | 23 | 20 | 19 | 19 | 19 | 19 |

| Zone    | Lumens | Total Luminaire Efficiency = 70.1% |                         |
|---------|--------|------------------------------------|-------------------------|
| 0-10    | 126.78 | CIE Type – Direct                  |                         |
| 10-20   | 367.88 | Plane                              | Spacing Criteria        |
| 20-30   | 567.43 |                                    |                         |
| 30-40   | 693.10 | 0-180                              | 1.28                    |
| 40-50   | 715.79 | 90-270                             | 1.32                    |
| 50-60   | 620.48 | Diagonal                           | 1.42                    |
| 60-70   | 433.89 | Zonal Lumen Summary                |                         |
| 70-80   | 163.48 |                                    |                         |
| 80-90   | 25.87  | Zone                               | Lumens % Lamp % Fixture |
| 90-100  | 0.00   | 0-30                               | 1062.10 20.0 28.6       |
| 100-110 | 0.00   | 0-40                               | 1755.20 33.1 47.3       |
| 110-120 | 0.00   | 0-60                               | 3091.47 58.3 83.2       |
| 120-130 | 0.00   | 0-90                               | 3714.71 70.1 100.0      |
| 130-140 | 0.00   | 90-120                             | 0.00 0.0 0.0            |
| 140-150 | 0.00   | 90-130                             | 0.00 0.0 0.0            |
| 150-160 | 0.00   | 90-150                             | 0.00 0.0 0.0            |
| 160-170 | 0.00   | 90-180                             | 0.00 0.0 0.0            |
| 170-180 | 0.00   | 180-0                              | 3714.71 70.1 100.0      |



REPORT NUMBER: **VRS240**  
Lamps: Two 40 W Fluorescent Vaportightproof

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

| % Ceiling | Rcc | 80 |    |    |    | 70 |    |    |    | 50 |    |    |    | 30 |    |    |    | 10 |    |    |    | 0  |
|-----------|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| % Walls   | Rw  | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0  |
| 0         | 83  | 83 | 83 | 83 | 83 | 81 | 81 | 81 | 81 | 78 | 78 | 78 | 75 | 75 | 75 | 72 | 72 | 72 | 70 | 70 | 70 | 70 |
| 1         | 77  | 74 | 71 | 69 | 67 | 75 | 72 | 70 | 67 | 69 | 67 | 65 | 67 | 65 | 63 | 64 | 63 | 61 | 60 | 60 | 60 | 60 |
| 2         | 70  | 65 | 60 | 56 | 54 | 68 | 63 | 59 | 56 | 61 | 57 | 54 | 59 | 56 | 53 | 57 | 54 | 52 | 51 | 51 | 51 | 51 |
| 3         | 64  | 57 | 52 | 47 | 45 | 62 | 56 | 51 | 47 | 54 | 49 | 46 | 52 | 48 | 45 | 50 | 47 | 44 | 43 | 43 | 43 | 43 |
| 4         | 59  | 51 | 45 | 40 | 38 | 57 | 50 | 44 | 40 | 48 | 43 | 39 | 46 | 42 | 39 | 45 | 41 | 38 | 37 | 37 | 37 | 37 |
| 5         | 54  | 45 | 39 | 35 | 33 | 53 | 44 | 39 | 34 | 43 | 38 | 34 | 42 | 37 | 34 | 40 | 36 | 33 | 32 | 32 | 32 | 32 |
| 6         | 50  | 41 | 35 | 30 | 28 | 49 | 40 | 34 | 30 | 39 | 34 | 30 | 38 | 33 | 29 | 37 | 32 | 29 | 28 | 28 | 28 | 28 |
| 7         | 46  | 37 | 31 | 27 | 25 | 45 | 36 | 31 | 27 | 35 | 30 | 26 | 34 | 30 | 26 | 33 | 29 | 26 | 25 | 25 | 25 | 25 |
| 8         | 43  | 34 | 28 | 24 | 22 | 42 | 33 | 28 | 24 | 32 | 27 | 23 | 31 | 27 | 23 | 31 | 26 | 23 | 22 | 22 | 22 | 22 |
| 9         | 40  | 31 | 25 | 21 | 19 | 39 | 30 | 25 | 21 | 30 | 25 | 21 | 29 | 24 | 21 | 28 | 24 | 21 | 20 | 20 | 20 | 20 |
| 10        | 38  | 28 | 23 | 19 | 17 | 37 | 28 | 23 | 19 | 27 | 23 | 19 | 27 | 22 | 19 | 26 | 22 | 19 | 18 | 18 | 18 | 18 |

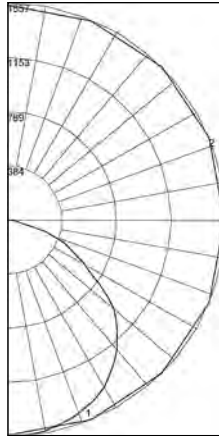
# DRS™ Fluorescent Luminaire Photometric Data

Enclosed and Gasketed. Suitable for Use in Wet Locations

32 W, 40 W and 60 W Two- and Three-Lamp Fixtures.

**Zone Lumens** Total Luminaire Efficiency = 73.5%

|         |        |                     |                  |        |           |
|---------|--------|---------------------|------------------|--------|-----------|
| 0-10    | 145.72 | CIE Type – Direct   |                  |        |           |
| 10-20   | 421.76 |                     |                  |        |           |
| 20-30   | 651.35 |                     |                  |        |           |
| 30-40   | 798.47 | Plane               | Spacing Criteria |        |           |
| 40-50   | 824.90 | 0-180               | 1.28             |        |           |
| 50-60   | 701.76 | 90-270              | 1.34             |        |           |
| 60-70   | 498.35 | Diagonal            | 1.44             |        |           |
| 70-80   | 189.17 | Zonal Lumen Summary |                  |        |           |
| 80-90   | 30.32  | Zone                | Lumens           | % Lamp | % Fixture |
| 90-100  | 0.00   | 0-30                | 1218.83          | 21.0   | 28.6      |
| 100-110 | 0.00   | 0-40                | 2017.30          | 34.8   | 47.3      |
| 110-120 | 0.00   | 0-60                | 3543.96          | 61.1   | 83.2      |
| 120-130 | 0.00   | 0-90                | 4261.81          | 73.5   | 100.0     |
| 130-140 | 0.00   | 90-120              | 0.00             | 0.0    | 0.0       |
| 140-150 | 0.00   | 90-130              | 0.00             | 0.0    | 0.0       |
| 150-160 | 0.00   | 90-150              | 0.00             | 0.0    | 0.0       |
| 160-170 | 0.00   | 90-180              | 0.00             | 0.0    | 0.0       |
| 170-180 | 0.00   | 180-0               | 4261.81          | 73.5   | 100.0     |



REPORT NUMBER: **DRS232**

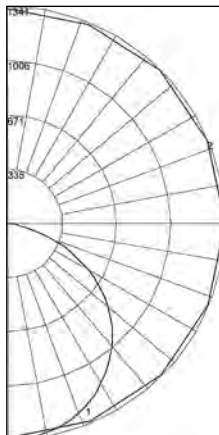
Lamps: Two 32 W Fluorescent Dust–Ignitionproof

Coefficients of Utilization – Zonal Cavity Method

| Effective Floor Cavity Reflectance 0.20 |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |
|-----------------------------------------|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|
| % Ceiling                               | Rcc | 80 |    |    |    | 70 |    |    |    | 50 |    |    |    | 30 |    |    |    | 10 |    |    |    | 0 |
| % Walls                                 | Rw  | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0 |
|                                         | 0   | 87 | 87 | 87 | 87 | 85 | 85 | 85 | 85 | 82 | 82 | 82 | 78 | 78 | 78 | 75 | 75 | 75 | 73 |    |    |   |
|                                         | 1   | 81 | 77 | 74 | 72 | 79 | 76 | 73 | 71 | 73 | 70 | 68 | 70 | 68 | 66 | 67 | 66 | 64 | 63 |    |    |   |
|                                         | 2   | 74 | 68 | 63 | 59 | 72 | 66 | 62 | 58 | 64 | 60 | 57 | 62 | 58 | 56 | 59 | 57 | 55 | 53 |    |    |   |
|                                         | 3   | 67 | 60 | 54 | 49 | 65 | 59 | 53 | 49 | 56 | 52 | 48 | 54 | 51 | 47 | 53 | 49 | 46 | 45 |    |    |   |
|                                         | 4   | 62 | 53 | 47 | 42 | 60 | 52 | 46 | 42 | 50 | 45 | 41 | 49 | 44 | 41 | 47 | 43 | 40 | 38 |    |    |   |
|                                         | 5   | 57 | 47 | 41 | 36 | 55 | 47 | 41 | 36 | 45 | 40 | 36 | 44 | 39 | 35 | 42 | 38 | 35 | 33 |    |    |   |
|                                         | 6   | 52 | 43 | 36 | 32 | 51 | 42 | 36 | 31 | 41 | 35 | 31 | 39 | 35 | 31 | 38 | 34 | 31 | 29 |    |    |   |
|                                         | 7   | 48 | 39 | 32 | 28 | 47 | 38 | 32 | 28 | 37 | 32 | 28 | 36 | 31 | 27 | 35 | 31 | 27 | 26 |    |    |   |
|                                         | 8   | 45 | 35 | 29 | 25 | 44 | 35 | 29 | 25 | 34 | 28 | 25 | 33 | 28 | 25 | 32 | 28 | 24 | 23 |    |    |   |
|                                         | 9   | 42 | 32 | 26 | 22 | 41 | 32 | 26 | 22 | 31 | 26 | 22 | 30 | 26 | 22 | 30 | 25 | 22 | 21 |    |    |   |
|                                         | 10  | 39 | 30 | 24 | 20 | 39 | 29 | 24 | 20 | 29 | 24 | 20 | 28 | 23 | 20 | 27 | 23 | 20 | 19 |    |    |   |

**Zone Lumens** Total Luminaire Efficiency = 70.1%

|         |        |                     |                  |        |           |
|---------|--------|---------------------|------------------|--------|-----------|
| 0-10    | 126.78 | CIE Type – Direct   |                  |        |           |
| 10-20   | 367.88 |                     |                  |        |           |
| 20-30   | 567.43 |                     |                  |        |           |
| 30-40   | 693.10 | Plane               | Spacing Criteria |        |           |
| 40-50   | 715.79 | 0-180               | 1.28             |        |           |
| 50-60   | 620.48 | 90-270              | 1.32             |        |           |
| 60-70   | 433.89 | Diagonal            | 1.42             |        |           |
| 70-80   | 163.48 |                     |                  |        |           |
| 80-90   | 25.87  | Zonal Lumen Summary |                  |        |           |
| 90-100  | 0.00   | Zone                | Lumens           | % Lamp | % Fixture |
| 100-110 | 0.00   | 0-30                | 1062.10          | 20.0   | 28.6      |
| 110-120 | 0.00   | 0-40                | 1755.20          | 33.1   | 47.3      |
| 120-130 | 0.00   | 0-60                | 3091.47          | 58.3   | 83.2      |
| 130-140 | 0.00   | 0-90                | 3714.71          | 70.1   | 100.0     |
| 140-150 | 0.00   | 90-120              | 0.00             | 0.0    | 0.0       |
| 150-160 | 0.00   | 90-130              | 0.00             | 0.0    | 0.0       |
| 160-170 | 0.00   | 90-150              | 0.00             | 0.0    | 0.0       |
| 170-180 | 0.00   | 90-180              | 0.00             | 0.0    | 0.0       |
|         |        | 180-0               | 3714.71          | 70.1   | 100.0     |



REPORT NUMBER: **DRS240**

Lamps: Two 40 W Fluorescent Dust–Ignitionproof

Coefficients of Utilization – Zonal Cavity Method

| Effective Floor Cavity Reflectance 0.20 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |
|-----------------------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|
| % Ceiling Rcc                           |    | 80 |    |    |    | 70 |    |    |    | 50 |    |    |    | 30 |    |    |    | 10 |    |    |    | 0 |
| % Walls                                 | Rw | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0 |
|                                         | 0  | 83 | 83 | 83 | 83 | 81 | 81 | 81 | 81 | 78 | 78 | 78 | 75 | 75 | 75 | 72 | 72 | 72 | 70 |    |    |   |
|                                         | 1  | 77 | 74 | 71 | 69 | 75 | 72 | 70 | 67 | 69 | 67 | 65 | 67 | 65 | 63 | 64 | 63 | 61 | 60 |    |    |   |
|                                         | 2  | 70 | 65 | 60 | 56 | 68 | 63 | 59 | 56 | 61 | 57 | 54 | 59 | 56 | 53 | 57 | 54 | 52 | 51 |    |    |   |
|                                         | 3  | 64 | 57 | 52 | 47 | 62 | 56 | 51 | 47 | 54 | 49 | 46 | 52 | 48 | 45 | 50 | 47 | 44 | 43 |    |    |   |
|                                         | 4  | 59 | 51 | 45 | 40 | 57 | 50 | 44 | 40 | 48 | 43 | 39 | 46 | 42 | 39 | 45 | 41 | 38 | 37 |    |    |   |
|                                         | 5  | 54 | 45 | 39 | 35 | 53 | 44 | 39 | 34 | 43 | 38 | 34 | 42 | 37 | 34 | 40 | 36 | 33 | 32 |    |    |   |
|                                         | 6  | 50 | 41 | 35 | 30 | 49 | 40 | 34 | 30 | 39 | 34 | 30 | 38 | 33 | 29 | 37 | 32 | 29 | 28 |    |    |   |
|                                         | 7  | 46 | 37 | 31 | 27 | 45 | 36 | 31 | 27 | 35 | 30 | 26 | 34 | 30 | 26 | 33 | 29 | 26 | 25 |    |    |   |
|                                         | 8  | 43 | 34 | 28 | 24 | 42 | 33 | 28 | 24 | 32 | 27 | 23 | 31 | 27 | 23 | 31 | 26 | 23 | 22 |    |    |   |
|                                         | 9  | 40 | 31 | 25 | 21 | 39 | 30 | 25 | 21 | 30 | 25 | 21 | 29 | 24 | 21 | 28 | 24 | 21 | 20 |    |    |   |
|                                         | 10 | 38 | 28 | 23 | 19 | 37 | 28 | 23 | 19 | 27 | 23 | 19 | 27 | 22 | 19 | 26 | 22 | 19 | 18 |    |    |   |