



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CRDI-TL-L20-8TWU-L20-8TWD-XXX-DALI-UNV-ON-CSU-OM-CSD-WM 4000K_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #12326812.05

[TESTLAB] UL Verification Services Inc.

[ISSUE DATE] 24-FEB-2021

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS INC. - CARTHAGE, MO.

[LUMCAT] 8CRDI-TL-L20-8TWU-L20-8TWD-xxx-DIM1-UNV-ON-CSU-OM-CSD-WM 4000k

[LUMINAIRE] White formed aluminum housing, specular reflector, clear glass cover

[MORE]

[LAMP] Two white LEDs

[SEARCH_SOURCETYPE] LED

[SEARCH_APPLICATION] INDOOR, DIRECT, INDIRECT

[SEARCH_MOUNTING] WALL

CHARACTERISTICS

| | |
|---------------------------------|--------------------|
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 4278 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 89 |
| Total Luminaire Watts | 48 |
| Ballast Factor | 1.00 |
| CIE Type | General Diffuse |
| Spacing Criterion (0-180) | N.A. |
| Spacing Criterion (90-270) | N.A. |
| Spacing Criterion (Diagonal) | N.A. |
| Basic Luminous Shape | Circular |
| Luminous Length (0-180) | 0.50 ft (Diameter) |
| Luminous Width (90-270) | 0.50 ft (Diameter) |
| Luminous Height | 0.00 ft |

LUMINANCE DATA (cd/sq.m)

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|------------------|---------------|----------------|----------------|
| 45 | 4109 | 4109 | 4109 |
| 55 | 1513 | 1513 | 1513 |
| 65 | 595 | 595 | 595 |
| 75 | 267 | 267 | 267 |
| 85 | 216 | 216 | 216 |

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CANDELA TABULATION

| | <u>0.0</u> | <u>22.5</u> | <u>45.0</u> | <u>67.5</u> | <u>90.0</u> | <u>112.5</u> | <u>135.0</u> | <u>157.5</u> | <u>180.0</u> | <u>202.5</u> |
|--------------|------------|-------------|-------------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|
| 0.0 | 4607.891 | 4607.891 | 4607.891 | 4607.891 | 4607.891 | 4607.891 | 4607.891 | 4607.891 | 4607.891 | 4607.891 |
| 2.5 | 4664.155 | 4664.155 | 4664.155 | 4664.155 | 4664.155 | 4664.155 | 4664.155 | 4664.155 | 4664.155 | 4664.155 |
| 5.0 | 4560.813 | 4560.813 | 4560.813 | 4560.813 | 4560.813 | 4560.813 | 4560.813 | 4560.813 | 4560.813 | 4560.813 |
| 7.5 | 4101.517 | 4101.517 | 4101.517 | 4101.517 | 4101.517 | 4101.517 | 4101.517 | 4101.517 | 4101.517 | 4101.517 |
| 10.0 | 3436.685 | 3436.685 | 3436.685 | 3436.685 | 3436.685 | 3436.685 | 3436.685 | 3436.685 | 3436.685 | 3436.685 |
| 12.5 | 2990.020 | 2990.020 | 2990.020 | 2990.020 | 2990.020 | 2990.020 | 2990.020 | 2990.020 | 2990.020 | 2990.020 |
| 15.0 | 2669.660 | 2669.660 | 2669.660 | 2669.660 | 2669.660 | 2669.660 | 2669.660 | 2669.660 | 2669.660 | 2669.660 |
| 17.5 | 2418.196 | 2418.196 | 2418.196 | 2418.196 | 2418.196 | 2418.196 | 2418.196 | 2418.196 | 2418.196 | 2418.196 |
| 20.0 | 2195.437 | 2195.437 | 2195.437 | 2195.437 | 2195.437 | 2195.437 | 2195.437 | 2195.437 | 2195.437 | 2195.437 |
| 22.5 | 1924.452 | 1924.452 | 1924.452 | 1924.452 | 1924.452 | 1924.452 | 1924.452 | 1924.452 | 1924.452 | 1924.452 |
| 25.0 | 1621.316 | 1621.316 | 1621.316 | 1621.316 | 1621.316 | 1621.316 | 1621.316 | 1621.316 | 1621.316 | 1621.316 |
| 27.5 | 1351.480 | 1351.480 | 1351.480 | 1351.480 | 1351.480 | 1351.480 | 1351.480 | 1351.480 | 1351.480 | 1351.480 |
| 30.0 | 1151.686 | 1151.686 | 1151.686 | 1151.686 | 1151.686 | 1151.686 | 1151.686 | 1151.686 | 1151.686 | 1151.686 |
| 32.5 | 816.629 | 816.629 | 816.629 | 816.629 | 816.629 | 816.629 | 816.629 | 816.629 | 816.629 | 816.629 |
| 35.0 | 454.129 | 454.129 | 454.129 | 454.129 | 454.129 | 454.129 | 454.129 | 454.129 | 454.129 | 454.129 |
| 37.5 | 198.072 | 198.072 | 198.072 | 198.072 | 198.072 | 198.072 | 198.072 | 198.072 | 198.072 | 198.072 |
| 40.0 | 132.966 | 132.966 | 132.966 | 132.966 | 132.966 | 132.966 | 132.966 | 132.966 | 132.966 | 132.966 |
| 42.5 | 74.980 | 74.980 | 74.980 | 74.980 | 74.980 | 74.980 | 74.980 | 74.980 | 74.980 | 74.980 |
| 45.0 | 53.049 | 53.049 | 53.049 | 53.049 | 53.049 | 53.049 | 53.049 | 53.049 | 53.049 | 53.049 |
| 47.5 | 41.107 | 41.107 | 41.107 | 41.107 | 41.107 | 41.107 | 41.107 | 41.107 | 41.107 | 41.107 |
| 50.0 | 30.773 | 30.773 | 30.773 | 30.773 | 30.773 | 30.773 | 30.773 | 30.773 | 30.773 | 30.773 |
| 52.5 | 22.276 | 22.276 | 22.276 | 22.276 | 22.276 | 22.276 | 22.276 | 22.276 | 22.276 | 22.276 |
| 55.0 | 15.846 | 15.846 | 15.846 | 15.846 | 15.846 | 15.846 | 15.846 | 15.846 | 15.846 | 15.846 |
| 57.5 | 11.482 | 11.482 | 11.482 | 11.482 | 11.482 | 11.482 | 11.482 | 11.482 | 11.482 | 11.482 |
| 60.0 | 8.382 | 8.382 | 8.382 | 8.382 | 8.382 | 8.382 | 8.382 | 8.382 | 8.382 | 8.382 |
| 62.5 | 6.200 | 6.200 | 6.200 | 6.200 | 6.200 | 6.200 | 6.200 | 6.200 | 6.200 | 6.200 |
| 65.0 | 4.593 | 4.593 | 4.593 | 4.593 | 4.593 | 4.593 | 4.593 | 4.593 | 4.593 | 4.593 |
| 67.5 | 3.330 | 3.330 | 3.330 | 3.330 | 3.330 | 3.330 | 3.330 | 3.330 | 3.330 | 3.330 |
| 70.0 | 2.526 | 2.526 | 2.526 | 2.526 | 2.526 | 2.526 | 2.526 | 2.526 | 2.526 | 2.526 |
| 72.5 | 1.837 | 1.837 | 1.837 | 1.837 | 1.837 | 1.837 | 1.837 | 1.837 | 1.837 | 1.837 |
| 75.0 | 1.263 | 1.263 | 1.263 | 1.263 | 1.263 | 1.263 | 1.263 | 1.263 | 1.263 | 1.263 |
| 77.5 | 0.919 | 0.919 | 0.919 | 0.919 | 0.919 | 0.919 | 0.919 | 0.919 | 0.919 | 0.919 |
| 80.0 | 0.689 | 0.689 | 0.689 | 0.689 | 0.689 | 0.689 | 0.689 | 0.689 | 0.689 | 0.689 |
| 82.5 | 0.459 | 0.459 | 0.459 | 0.459 | 0.459 | 0.459 | 0.459 | 0.459 | 0.459 | 0.459 |
| 85.0 | 0.344 | 0.344 | 0.344 | 0.344 | 0.344 | 0.344 | 0.344 | 0.344 | 0.344 | 0.344 |
| 87.5 | 0.230 | 0.230 | 0.230 | 0.230 | 0.230 | 0.230 | 0.230 | 0.230 | 0.230 | 0.230 |
| 90.0 | 0.115 | 0.115 | 0.115 | 0.115 | 0.115 | 0.115 | 0.115 | 0.115 | 0.115 | 0.115 |
| 92.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 95.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 97.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 100.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 102.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 105.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 107.5 | 0.966 | 0.966 | 0.966 | 0.966 | 0.966 | 0.966 | 0.966 | 0.966 | 0.966 | 0.966 |
| 110.0 | 0.966 | 0.966 | 0.966 | 0.966 | 0.966 | 0.966 | 0.966 | 0.966 | 0.966 | 0.966 |
| 112.5 | 0.966 | 0.966 | 0.966 | 0.966 | 0.966 | 0.966 | 0.966 | 0.966 | 0.966 | 0.966 |
| 115.0 | 0.966 | 0.966 | 0.966 | 0.966 | 0.966 | 0.966 | 0.966 | 0.966 | 0.966 | 0.966 |
| 117.5 | 1.931 | 1.931 | 1.931 | 1.931 | 1.931 | 1.931 | 1.931 | 1.931 | 1.931 | 1.931 |
| 120.0 | 1.931 | 1.931 | 1.931 | 1.931 | 1.931 | 1.931 | 1.931 | 1.931 | 1.931 | 1.931 |
| 122.5 | 2.897 | 2.897 | 2.897 | 2.897 | 2.897 | 2.897 | 2.897 | 2.897 | 2.897 | 2.897 |
| 125.0 | 3.863 | 3.863 | 3.863 | 3.863 | 3.863 | 3.863 | 3.863 | 3.863 | 3.863 | 3.863 |
| 127.5 | 4.829 | 4.829 | 4.829 | 4.829 | 4.829 | 4.829 | 4.829 | 4.829 | 4.829 | 4.829 |
| 130.0 | 7.726 | 7.726 | 7.726 | 7.726 | 7.726 | 7.726 | 7.726 | 7.726 | 7.726 | 7.726 |
| 132.5 | 9.657 | 9.657 | 9.657 | 9.657 | 9.657 | 9.657 | 9.657 | 9.657 | 9.657 | 9.657 |

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PHOTOMETRIC FILENAME : 8CRDI-TL-L20-8TWU-L20-8TWD-XXX-DALI-UNV-ON-CSU-OM-CSD-WM 4000K_IES

CANDELA TABULATION - (Cont.)

| | | | | | | | | | | |
|-------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 135.0 | 12.555 | 12.555 | 12.555 | 12.555 | 12.555 | 12.555 | 12.555 | 12.555 | 12.555 | 12.555 |
| 137.5 | 16.418 | 16.418 | 16.418 | 16.418 | 16.418 | 16.418 | 16.418 | 16.418 | 16.418 | 16.418 |
| 140.0 | 20.281 | 20.281 | 20.281 | 20.281 | 20.281 | 20.281 | 20.281 | 20.281 | 20.281 | 20.281 |
| 142.5 | 36.698 | 36.698 | 36.698 | 36.698 | 36.698 | 36.698 | 36.698 | 36.698 | 36.698 | 36.698 |
| 145.0 | 233.709 | 233.709 | 233.709 | 233.709 | 233.709 | 233.709 | 233.709 | 233.709 | 233.709 | 233.709 |
| 147.5 | 523.432 | 523.432 | 523.432 | 523.432 | 523.432 | 523.432 | 523.432 | 523.432 | 523.432 | 523.432 |
| 150.0 | 729.134 | 729.134 | 729.134 | 729.134 | 729.134 | 729.134 | 729.134 | 729.134 | 729.134 | 729.134 |
| 152.5 | 794.805 | 794.805 | 794.805 | 794.805 | 794.805 | 794.805 | 794.805 | 794.805 | 794.805 | 794.805 |
| 155.0 | 986.021 | 986.021 | 986.021 | 986.021 | 986.021 | 986.021 | 986.021 | 986.021 | 986.021 | 986.021 |
| 157.5 | 1273.812 | 1273.812 | 1273.812 | 1273.812 | 1273.812 | 1273.812 | 1273.812 | 1273.812 | 1273.812 | 1273.812 |
| 160.0 | 1504.624 | 1504.624 | 1504.624 | 1504.624 | 1504.624 | 1504.624 | 1504.624 | 1504.624 | 1504.624 | 1504.624 |
| 162.5 | 1691.978 | 1691.978 | 1691.978 | 1691.978 | 1691.978 | 1691.978 | 1691.978 | 1691.978 | 1691.978 | 1691.978 |
| 165.0 | 1962.385 | 1962.385 | 1962.385 | 1962.385 | 1962.385 | 1962.385 | 1962.385 | 1962.385 | 1962.385 | 1962.385 |
| 167.5 | 2441.393 | 2441.393 | 2441.393 | 2441.393 | 2441.393 | 2441.393 | 2441.393 | 2441.393 | 2441.393 | 2441.393 |
| 170.0 | 3405.202 | 3405.202 | 3405.202 | 3405.202 | 3405.202 | 3405.202 | 3405.202 | 3405.202 | 3405.202 | 3405.202 |
| 172.5 | 5341.520 | 5341.520 | 5341.520 | 5341.520 | 5341.520 | 5341.519 | 5341.519 | 5341.519 | 5341.519 | 5341.519 |
| 175.0 | 9493.251 | 9493.251 | 9493.251 | 9493.251 | 9493.251 | 9493.249 | 9493.249 | 9493.249 | 9493.249 | 9493.249 |
| 177.5 | 16736.303 | 16736.303 | 16736.303 | 16736.303 | 16736.302 | 16736.302 | 16736.302 | 16736.301 | 16736.301 | 16736.301 |
| 180.0 | 21246.298 | 21246.298 | 21246.298 | 21246.298 | 21246.298 | 21246.298 | 21246.298 | 21246.298 | 21246.298 | 21246.298 |

Vert. Horizontal Angles

| | <u>225.0</u> | <u>247.5</u> | <u>270.0</u> | <u>292.5</u> | <u>315.0</u> | <u>337.5</u> | <u>360.0</u> |
|------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 0.0 | 4607.891 | 4607.891 | 4607.891 | 4607.891 | 4607.891 | 4607.891 | 4607.891 |
| 2.5 | 4664.155 | 4664.155 | 4664.155 | 4664.155 | 4664.155 | 4664.155 | 4664.155 |
| 5.0 | 4560.813 | 4560.813 | 4560.813 | 4560.813 | 4560.813 | 4560.813 | 4560.813 |
| 7.5 | 4101.517 | 4101.517 | 4101.517 | 4101.517 | 4101.517 | 4101.517 | 4101.517 |
| 10.0 | 3436.685 | 3436.685 | 3436.685 | 3436.685 | 3436.685 | 3436.685 | 3436.685 |
| 12.5 | 2990.020 | 2990.020 | 2990.020 | 2990.020 | 2990.020 | 2990.020 | 2990.020 |
| 15.0 | 2669.660 | 2669.660 | 2669.660 | 2669.660 | 2669.660 | 2669.660 | 2669.660 |
| 17.5 | 2418.196 | 2418.196 | 2418.196 | 2418.196 | 2418.196 | 2418.196 | 2418.196 |
| 20.0 | 2195.437 | 2195.437 | 2195.437 | 2195.437 | 2195.437 | 2195.437 | 2195.437 |
| 22.5 | 1924.452 | 1924.452 | 1924.452 | 1924.452 | 1924.452 | 1924.452 | 1924.452 |
| 25.0 | 1621.316 | 1621.316 | 1621.316 | 1621.316 | 1621.316 | 1621.316 | 1621.316 |
| 27.5 | 1351.480 | 1351.480 | 1351.480 | 1351.480 | 1351.480 | 1351.480 | 1351.480 |
| 30.0 | 1151.686 | 1151.686 | 1151.686 | 1151.686 | 1151.686 | 1151.686 | 1151.686 |
| 32.5 | 816.629 | 816.629 | 816.629 | 816.629 | 816.629 | 816.629 | 816.629 |
| 35.0 | 454.129 | 454.129 | 454.129 | 454.129 | 454.129 | 454.129 | 454.129 |
| 37.5 | 198.072 | 198.072 | 198.072 | 198.072 | 198.072 | 198.072 | 198.072 |
| 40.0 | 132.966 | 132.966 | 132.966 | 132.966 | 132.966 | 132.966 | 132.966 |
| 42.5 | 74.980 | 74.980 | 74.980 | 74.980 | 74.980 | 74.980 | 74.980 |
| 45.0 | 53.049 | 53.049 | 53.049 | 53.049 | 53.049 | 53.049 | 53.049 |
| 47.5 | 41.107 | 41.107 | 41.107 | 41.107 | 41.107 | 41.107 | 41.107 |
| 50.0 | 30.773 | 30.773 | 30.773 | 30.773 | 30.773 | 30.773 | 30.773 |
| 52.5 | 22.276 | 22.276 | 22.276 | 22.276 | 22.276 | 22.276 | 22.276 |
| 55.0 | 15.846 | 15.846 | 15.846 | 15.846 | 15.846 | 15.846 | 15.846 |
| 57.5 | 11.482 | 11.482 | 11.482 | 11.482 | 11.482 | 11.482 | 11.482 |
| 60.0 | 8.382 | 8.382 | 8.382 | 8.382 | 8.382 | 8.382 | 8.382 |
| 62.5 | 6.200 | 6.200 | 6.200 | 6.200 | 6.200 | 6.200 | 6.200 |
| 65.0 | 4.593 | 4.593 | 4.593 | 4.593 | 4.593 | 4.593 | 4.593 |
| 67.5 | 3.330 | 3.330 | 3.330 | 3.330 | 3.330 | 3.330 | 3.330 |
| 70.0 | 2.526 | 2.526 | 2.526 | 2.526 | 2.526 | 2.526 | 2.526 |
| 72.5 | 1.837 | 1.837 | 1.837 | 1.837 | 1.837 | 1.837 | 1.837 |
| 75.0 | 1.263 | 1.263 | 1.263 | 1.263 | 1.263 | 1.263 | 1.263 |
| 77.5 | 0.919 | 0.919 | 0.919 | 0.919 | 0.919 | 0.919 | 0.919 |
| 80.0 | 0.689 | 0.689 | 0.689 | 0.689 | 0.689 | 0.689 | 0.689 |

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 8CRDI-TL-L20-8TWU-L20-8TWD-XXX-DALI-UNV-ON-CSU-OM-CSD-WM 4000K_.IES****CANDELA TABULATION - (Cont.)**

| | | | | | | | |
|-------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 82.5 | 0.459 | 0.459 | 0.459 | 0.459 | 0.459 | 0.459 | 0.459 |
| 85.0 | 0.344 | 0.344 | 0.344 | 0.344 | 0.344 | 0.344 | 0.344 |
| 87.5 | 0.230 | 0.230 | 0.230 | 0.230 | 0.230 | 0.230 | 0.230 |
| 90.0 | 0.115 | 0.115 | 0.115 | 0.115 | 0.115 | 0.115 | 0.115 |
| 92.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 95.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 97.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 100.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 102.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 105.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 107.5 | 0.966 | 0.966 | 0.966 | 0.966 | 0.966 | 0.966 | 0.966 |
| 110.0 | 0.966 | 0.966 | 0.966 | 0.966 | 0.966 | 0.966 | 0.966 |
| 112.5 | 0.966 | 0.966 | 0.966 | 0.966 | 0.966 | 0.966 | 0.966 |
| 115.0 | 0.966 | 0.966 | 0.966 | 0.966 | 0.966 | 0.966 | 0.966 |
| 117.5 | 1.931 | 1.931 | 1.931 | 1.931 | 1.931 | 1.931 | 1.931 |
| 120.0 | 1.931 | 1.931 | 1.931 | 1.931 | 1.931 | 1.931 | 1.931 |
| 122.5 | 2.897 | 2.897 | 2.897 | 2.897 | 2.897 | 2.897 | 2.897 |
| 125.0 | 3.863 | 3.863 | 3.863 | 3.863 | 3.863 | 3.863 | 3.863 |
| 127.5 | 4.829 | 4.829 | 4.829 | 4.829 | 4.829 | 4.829 | 4.829 |
| 130.0 | 7.726 | 7.726 | 7.726 | 7.726 | 7.726 | 7.726 | 7.726 |
| 132.5 | 9.657 | 9.657 | 9.657 | 9.657 | 9.657 | 9.657 | 9.657 |
| 135.0 | 12.555 | 12.555 | 12.555 | 12.555 | 12.555 | 12.555 | 12.555 |
| 137.5 | 16.418 | 16.418 | 16.418 | 16.418 | 16.418 | 16.418 | 16.418 |
| 140.0 | 20.281 | 20.281 | 20.281 | 20.281 | 20.281 | 20.281 | 20.281 |
| 142.5 | 36.698 | 36.698 | 36.698 | 36.698 | 36.698 | 36.698 | 36.698 |
| 145.0 | 233.709 | 233.709 | 233.709 | 233.709 | 233.709 | 233.709 | 233.709 |
| 147.5 | 523.432 | 523.432 | 523.432 | 523.432 | 523.432 | 523.432 | 523.432 |
| 150.0 | 729.134 | 729.134 | 729.134 | 729.134 | 729.134 | 729.134 | 729.134 |
| 152.5 | 794.805 | 794.805 | 794.805 | 794.805 | 794.805 | 794.805 | 794.805 |
| 155.0 | 986.021 | 986.021 | 986.021 | 986.021 | 986.021 | 986.021 | 986.021 |
| 157.5 | 1273.812 | 1273.812 | 1273.812 | 1273.812 | 1273.812 | 1273.812 | 1273.812 |
| 160.0 | 1504.624 | 1504.624 | 1504.624 | 1504.624 | 1504.624 | 1504.624 | 1504.624 |
| 162.5 | 1691.978 | 1691.978 | 1691.978 | 1691.978 | 1691.978 | 1691.978 | 1691.978 |
| 165.0 | 1962.385 | 1962.385 | 1962.385 | 1962.385 | 1962.385 | 1962.385 | 1962.385 |
| 167.5 | 2441.393 | 2441.393 | 2441.393 | 2441.393 | 2441.393 | 2441.393 | 2441.393 |
| 170.0 | 3405.202 | 3405.202 | 3405.202 | 3405.202 | 3405.202 | 3405.202 | 3405.202 |
| 172.5 | 5341.519 | 5341.519 | 5341.520 | 5341.520 | 5341.520 | 5341.520 | 5341.520 |
| 175.0 | 9493.249 | 9493.249 | 9493.251 | 9493.251 | 9493.251 | 9493.251 | 9493.251 |
| 177.5 | 16736.301 | 16736.302 | 16736.302 | 16736.302 | 16736.303 | 16736.303 | 16736.303 |
| 180.0 | 21246.298 | 21246.298 | 21246.298 | 21246.298 | 21246.298 | 21246.298 | 21246.298 |

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 8CRDI-TL-L20-8TWU-L20-8TWD-XXX-DALI-UNV-ON-CSU-OM-CSD-WM 4000K_.IES****ZONAL LUMEN SUMMARY**

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|-------|--------|
| 0-20 | 1151.52 | N.A. | 26.90 |
| 0-30 | 1897.17 | N.A. | 44.30 |
| 0-40 | 2215.16 | N.A. | 51.80 |
| 0-60 | 2278.15 | N.A. | 53.20 |
| 0-80 | 2284.45 | N.A. | 53.40 |
| 0-90 | 2284.84 | N.A. | 53.40 |
| 10-90 | 1887.98 | N.A. | 44.10 |
| 20-40 | 1063.65 | N.A. | 24.90 |
| 20-50 | 1111.3 | N.A. | 26.00 |
| 40-70 | 67.81 | N.A. | 1.60 |
| 60-80 | 6.30 | N.A. | 0.10 |
| 70-80 | 1.48 | N.A. | 0.00 |
| 80-90 | 0.39 | N.A. | 0.00 |
| 90-110 | 0.39 | N.A. | 0.00 |
| 90-120 | 1.70 | N.A. | 0.00 |
| 90-130 | 5.34 | N.A. | 0.10 |
| 90-150 | 188.92 | N.A. | 4.40 |
| 90-180 | 1993.4 | N.A. | 46.60 |
| 110-180 | 1993.00 | N.A. | 46.60 |
| 0-180 | 4278.24 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|--------|
| 0-10 | 396.86 |
| 10-20 | 754.66 |
| 20-30 | 745.66 |
| 30-40 | 317.99 |
| 40-50 | 47.66 |
| 50-60 | 15.33 |
| 60-70 | 4.82 |
| 70-80 | 1.48 |
| 80-90 | 0.39 |
| 90-100 | 0.02 |
| 100-110 | 0.38 |
| 110-120 | 1.31 |
| 120-130 | 3.64 |
| 130-140 | 10.05 |
| 140-150 | 173.53 |
| 150-160 | 471.21 |
| 160-170 | 580.81 |
| 170-180 | 752.45 |

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CRDI-TL-L20-8TWU-L20-8TWD-XXX-DALI-UNV-ON-CSU-OM-CSD-WM 4000K_.IES

COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

| RC | 80 | | | | 70 | | | | 50 | | | 30 | | | 10 | | | 0 |
|----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|
| RW | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0 |
| 0 | 108 | 108 | 108 | 108 | 100 | 100 | 100 | 100 | 85 | 85 | 85 | 72 | 72 | 72 | 59 | 59 | 59 | 53 |
| 1 | 101 | 98 | 95 | 93 | 94 | 91 | 89 | 87 | 79 | 77 | 76 | 67 | 66 | 65 | 57 | 56 | 55 | 51 |
| 2 | 95 | 90 | 85 | 81 | 88 | 84 | 80 | 77 | 73 | 70 | 68 | 63 | 61 | 60 | 54 | 53 | 52 | 48 |
| 3 | 89 | 82 | 77 | 72 | 83 | 77 | 72 | 69 | 68 | 65 | 62 | 59 | 57 | 55 | 51 | 50 | 49 | 45 |
| 4 | 84 | 76 | 70 | 65 | 78 | 71 | 66 | 62 | 63 | 60 | 57 | 56 | 53 | 51 | 49 | 47 | 46 | 43 |
| 5 | 79 | 70 | 64 | 59 | 74 | 66 | 61 | 57 | 59 | 55 | 52 | 53 | 50 | 48 | 47 | 45 | 43 | 40 |
| 6 | 74 | 65 | 59 | 54 | 70 | 62 | 56 | 52 | 56 | 51 | 48 | 50 | 47 | 44 | 44 | 42 | 41 | 38 |
| 7 | 70 | 61 | 54 | 50 | 66 | 58 | 52 | 48 | 52 | 48 | 45 | 47 | 44 | 42 | 42 | 40 | 38 | 36 |
| 8 | 67 | 57 | 51 | 47 | 63 | 54 | 49 | 45 | 49 | 45 | 42 | 45 | 42 | 39 | 40 | 38 | 36 | 34 |
| 9 | 63 | 53 | 47 | 43 | 60 | 51 | 46 | 42 | 47 | 43 | 40 | 43 | 39 | 37 | 39 | 36 | 35 | 33 |
| 10 | 60 | 50 | 45 | 41 | 57 | 48 | 43 | 40 | 44 | 40 | 37 | 41 | 37 | 35 | 37 | 35 | 33 | 31 |

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CRDI-TL-L20-8TWU-L20-8TWD-XXX-DALI-UNV-ON-CSU-OM-CSD-WM 4000K_.IES

UGR TABLE - CORRECTED

Reflectances

| | | | | | | | | | | |
|----------------|----|----|----|----|----|----|----|----|----|----|
| Ceiling Cavity | 70 | 70 | 50 | 50 | 30 | 70 | 70 | 50 | 50 | 30 |
| Walls | 50 | 30 | 50 | 30 | 30 | 50 | 30 | 50 | 30 | 30 |
| Floor Cavity | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |

Room Size UGR Viewed Crosswise

| X=2H | Y=2H | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | UGR Viewed Endwise | | | | |
|------|------|-----|-----|-----|-----|-----|--------------------|-----|-----|-----|-----|
| | 3H | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 |
| | 4H | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 |
| | 6H | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 |
| | 8H | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 |
| | 12H | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 |

| | | | | | | | | | | | |
|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 4H | 2H | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 |
| | 3H | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 |
| | 4H | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 |
| | 6H | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 |
| | 8H | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 |
| | 12H | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 |

| | | | | | | | | | | | |
|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 8H | 4H | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 |
| | 6H | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 |
| | 8H | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 |
| | 12H | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 |

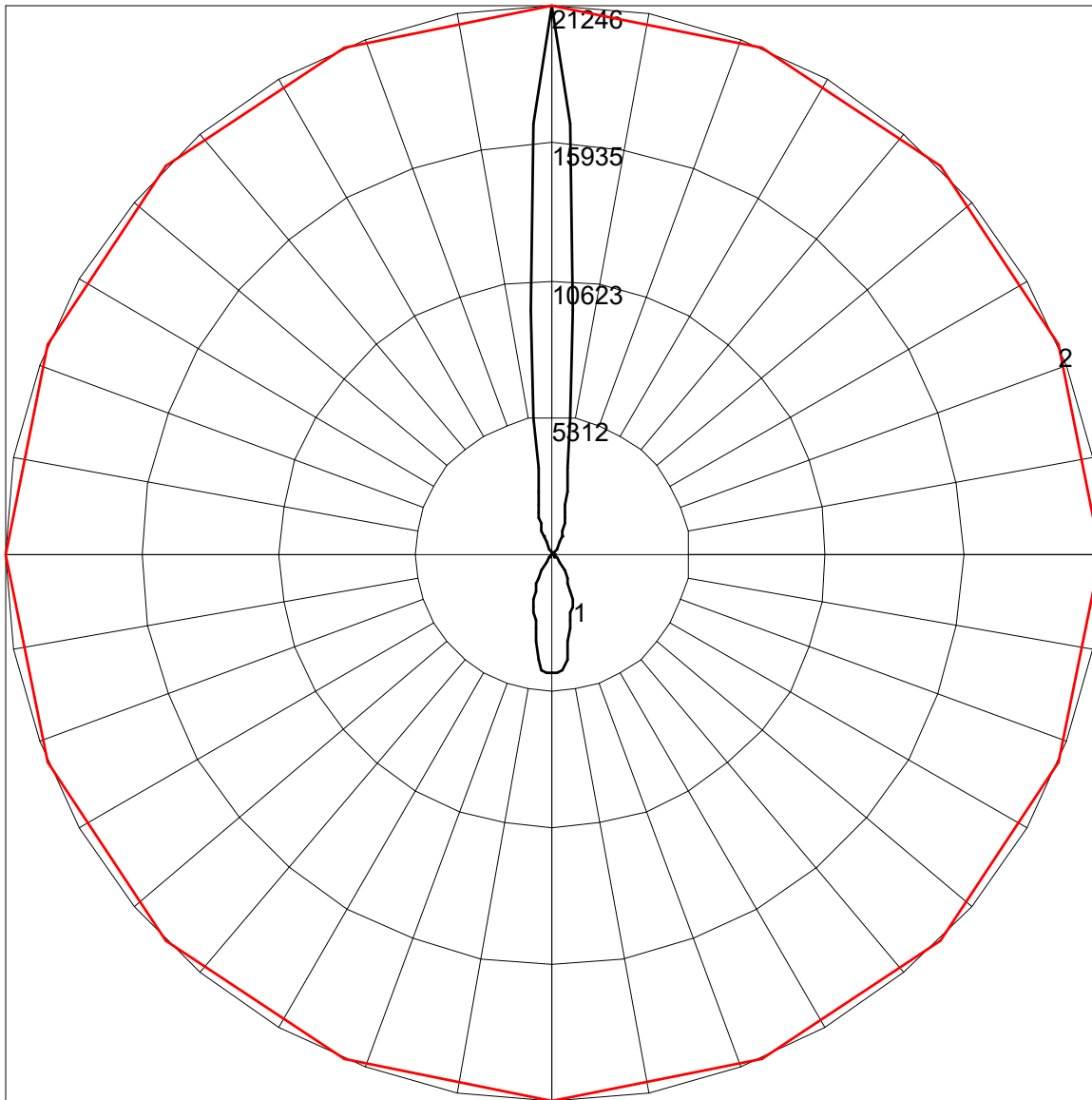
| | | | | | | | | | | | |
|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 12H | 4H | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 |
| | 6H | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 |
| | 8H | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 |

Maximum UGR = 5.2

IES INDOOR REPORT

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POLAR GRAPH



Maximum Candela = 21246.298 Located At Horizontal Angle = 0, Vertical Angle = 180

1 - Vertical Plane Through Horizontal Angles (90 - 270)

2 - Horizontal Cone Through Vertical Angle (180) (Through Max. Cd.)