



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CR-TL-L70-830-XXX-DIM-UNV-OW-CS-XX_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 20687.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 405-19-2021

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO 64836

[LUMINAIRE] 8" ROUND SURFACE CYLINDER

[MORE] OPEN SEMI-SPEC SPUN ALUMINUM REFLECTOR (WIDE)

[LUMCAT] 8CR-TL-L70-830-xxx-DIM-UNV-OW-CS-xx

[LAMPCAT] V13 BXRE-35E2000

[_SEARCH_SOURCETYPE] LED

[_SEARCH_APPLICATION] Indoor, Architectural, Classroom, Commercial, Healthcare, Office, Downlight

[_SEARCH_MOUNTING] Surface

CHARACTERISTICS

| | |
|---------------------------------|--------------------|
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 6868 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 101 |
| Total Luminaire Watts | 67.8 |
| Ballast Factor | 1.00 |
| CIE Type | Direct |
| Spacing Criterion (0-180) | 1.26 |
| Spacing Criterion (90-270) | 1.26 |
| Spacing Criterion (Diagonal) | 0.98 |
| Basic Luminous Shape | Circular |
| Luminous Length (0-180) | 0.48 ft (Diameter) |
| Luminous Width (90-270) | 0.48 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 | 12720 | 12720 | 12720 |
| 55 | 4432 | 4432 | 4432 |
| 65 | 925 | 925 | 925 |
| 75 | 0 | 0 | 0 |
| 85 | 0 | 0 | 0 |

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CANDELA TABULATION

| | <u>0</u> |
|----|----------|
| 0 | 5478.544 |
| 5 | 5173.816 |
| 10 | 5694.802 |
| 15 | 5684.972 |
| 20 | 5937.273 |
| 25 | 6494.302 |
| 30 | 6379.620 |
| 35 | 1979.091 |
| 40 | 271.961 |
| 45 | 150.725 |
| 50 | 88.469 |
| 55 | 42.596 |
| 60 | 22.936 |
| 65 | 6.553 |
| 70 | 0.000 |
| 75 | 0.000 |
| 80 | 0.000 |
| 85 | 0.000 |
| 90 | 0.000 |

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 8CR-TL-L70-830-XXX-DIM-UNV-OW-CS-XX_.IES****ZONAL LUMEN SUMMARY**

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|-------|--------|
| 0-20 | 2149.03 | N.A. | 31.30 |
| 0-30 | 5082.08 | N.A. | 74.00 |
| 0-40 | 6688.53 | N.A. | 97.40 |
| 0-60 | 6858.77 | N.A. | 99.90 |
| 0-80 | 6867.6 | N.A. | 100.00 |
| 0-90 | 6867.6 | N.A. | 100.00 |
| 10-90 | 6351.44 | N.A. | 92.50 |
| 20-40 | 4539.5 | N.A. | 66.10 |
| 20-50 | 4666.09 | N.A. | 67.90 |
| 40-70 | 179.07 | N.A. | 2.60 |
| 60-80 | 8.83 | N.A. | 0.10 |
| 70-80 | 0.00 | N.A. | 0.00 |
| 80-90 | 0.00 | N.A. | 0.00 |
| 90-110 | 0.00 | N.A. | 0.00 |
| 90-120 | 0.00 | N.A. | 0.00 |
| 90-130 | 0.00 | N.A. | 0.00 |
| 90-150 | 0.00 | N.A. | 0.00 |
| 90-180 | 0.00 | N.A. | 0.00 |
| 110-180 | 0.00 | N.A. | 0.00 |
| 0-180 | 6867.6 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|---------|
| 0-10 | 516.15 |
| 10-20 | 1632.88 |
| 20-30 | 2933.05 |
| 30-40 | 1606.45 |
| 40-50 | 126.60 |
| 50-60 | 43.65 |
| 60-70 | 8.83 |
| 70-80 | 0.00 |
| 80-90 | 0.00 |
| 90-100 | 0.00 |
| 100-110 | 0.00 |
| 110-120 | 0.00 |
| 120-130 | 0.00 |
| 130-140 | 0.00 |
| 140-150 | 0.00 |
| 150-160 | 0.00 |
| 160-170 | 0.00 |
| 170-180 | 0.00 |

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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 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1 | 114 | 111 | 108 | 106 | 111 | 109 | 106 | 104 | 105 | 103 | 101 | 101 | 99 | 98 | 97 | 96 | 95 | 94 |
| 2 | 108 | 103 | 99 | 96 | 106 | 101 | 98 | 95 | 98 | 95 | 93 | 95 | 93 | 91 | 92 | 90 | 89 | 87 |
| 3 | 102 | 96 | 91 | 87 | 100 | 95 | 90 | 86 | 92 | 88 | 85 | 90 | 86 | 84 | 87 | 85 | 82 | 81 |
| 4 | 97 | 90 | 84 | 80 | 95 | 89 | 83 | 79 | 86 | 82 | 79 | 84 | 81 | 78 | 83 | 79 | 77 | 75 |
| 5 | 92 | 84 | 78 | 74 | 91 | 83 | 77 | 73 | 81 | 76 | 73 | 79 | 75 | 72 | 78 | 74 | 71 | 70 |
| 6 | 87 | 78 | 72 | 68 | 86 | 78 | 72 | 68 | 76 | 71 | 67 | 75 | 70 | 67 | 73 | 70 | 67 | 65 |
| 7 | 83 | 74 | 68 | 63 | 82 | 73 | 67 | 63 | 72 | 67 | 63 | 70 | 66 | 62 | 69 | 65 | 62 | 61 |
| 8 | 79 | 69 | 63 | 59 | 78 | 69 | 63 | 59 | 67 | 62 | 59 | 66 | 62 | 58 | 65 | 61 | 58 | 57 |
| 9 | 75 | 65 | 59 | 55 | 74 | 65 | 59 | 55 | 64 | 58 | 55 | 63 | 58 | 55 | 62 | 57 | 54 | 53 |
| 10 | 71 | 61 | 55 | 51 | 70 | 61 | 55 | 51 | 60 | 55 | 51 | 59 | 54 | 51 | 58 | 54 | 51 | 50 |

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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

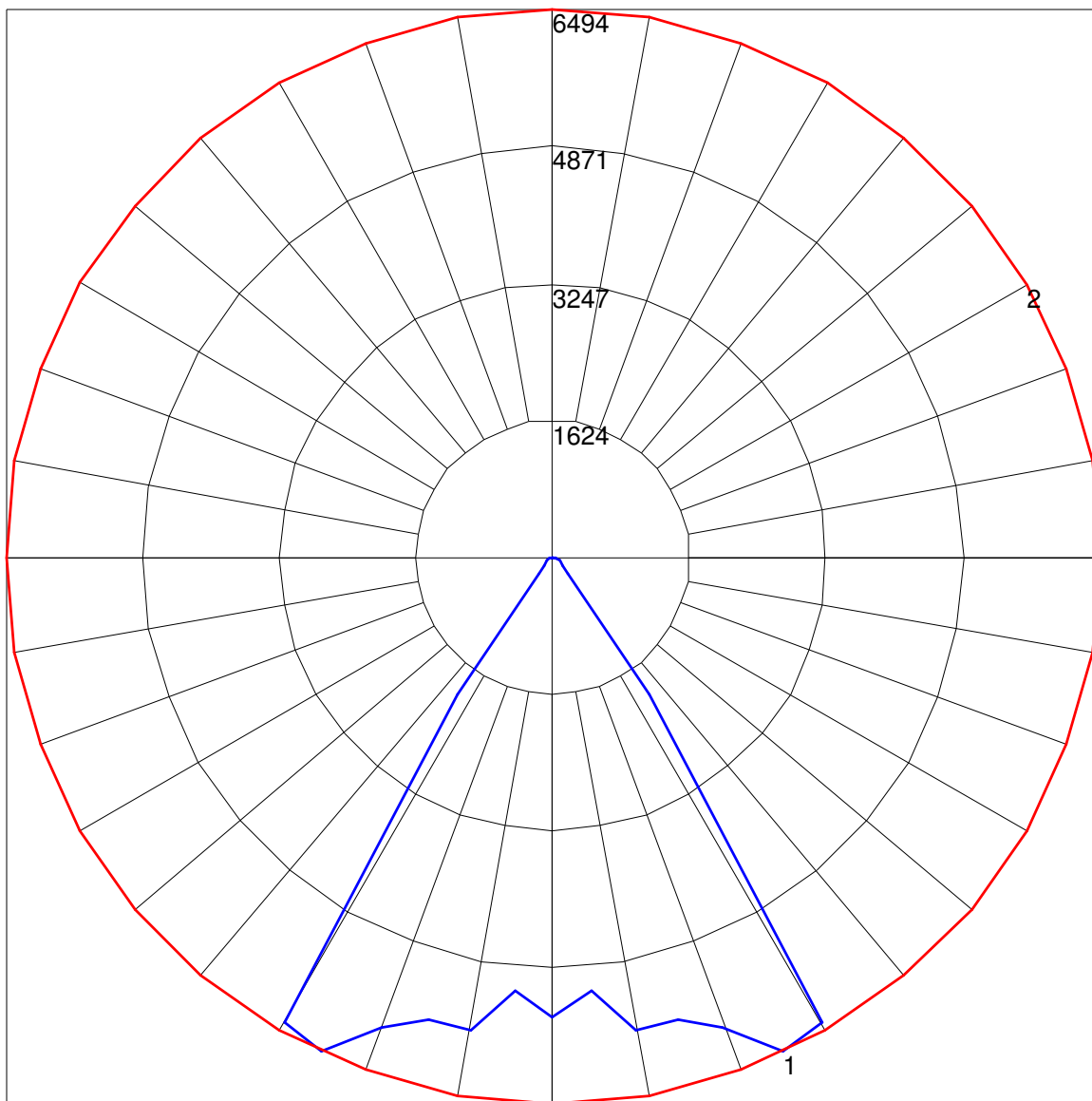
| X=2H | Y=2H | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 |
|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 3H | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 |
| | 4H | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 |
| | 6H | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 |
| | 8H | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 |
| | 12H | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 |

UGR Viewed Endwise

| | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 4H | 2H | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 |
| | 3H | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 |
| | 4H | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 |
| | 6H | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 |
| | 8H | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 |
| | 12H | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 |
| 8H | 4H | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 |
| | 6H | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 |
| | 8H | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 |
| | 12H | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 |
| 12H | 4H | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 |
| | 6H | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 |
| | 8H | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 |

Maximum UGR = 6.7

POLAR GRAPH



Maximum Candela = 6494.302 Located At Horizontal Angle = 0, Vertical Angle = 25
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (25) (Through Max. Cd.)