

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: CORELITE

Report Number: P938368

Luminaire Tested: SQ4-FB-150U-075D-93050-1D-UNV-STD-W-8-5000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938368
REPORT IS A COMBINATION OF REPORTS P933646 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-075D-93050-1D-UNV-STD-W-8-5000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

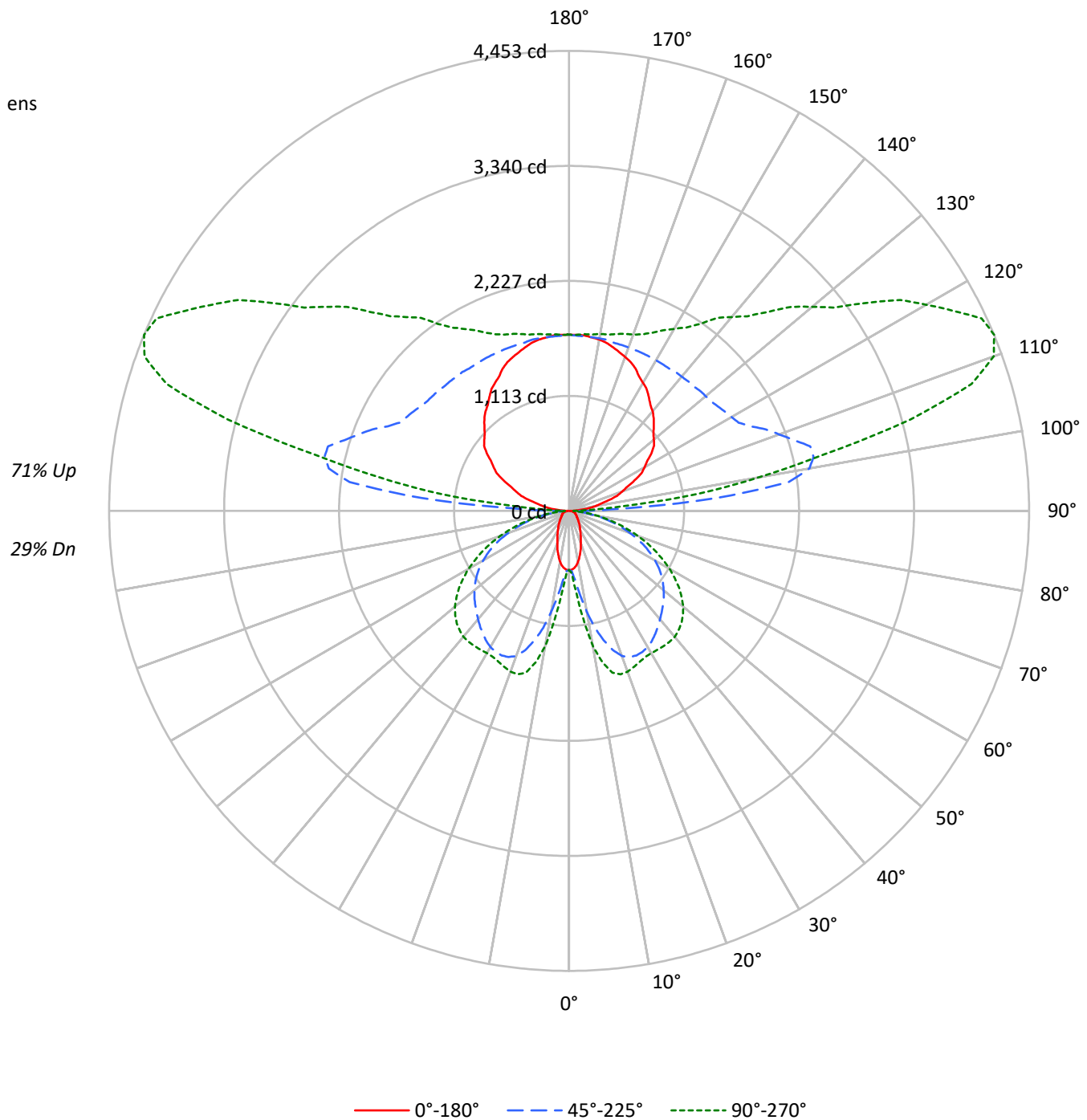
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15479.6 lumens
Efficiency: N/A
Efficacy: 121.7 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 127.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				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	50	30	10	0
RCR																					
0	102	102	102	102	91	91	91	91	71	71	71	53	53	53	36	36	36	36	36	36	29
1	93	88	84	81	83	79	76	73	62	60	58	46	45	43	32	31	30	32	31	30	23
2	84	77	71	66	75	69	64	59	54	50	47	40	38	36	27	26	25	27	26	25	19
3	76	67	60	54	68	60	54	49	47	43	39	35	32	30	24	22	21	24	22	21	16
4	70	59	51	45	62	53	46	41	42	37	33	31	28	25	21	19	17	21	19	17	13
5	64	52	44	38	57	47	40	35	37	32	28	28	24	21	19	17	15	19	17	15	11
6	58	47	39	33	52	42	35	30	33	28	24	25	21	18	17	15	13	17	15	13	10
7	54	42	34	28	48	38	31	26	30	25	21	22	19	16	15	13	11	15	13	11	8
8	50	38	30	25	44	34	27	23	27	22	18	20	17	14	14	12	10	14	12	10	7
9	46	34	27	22	41	31	24	20	24	20	16	18	15	12	13	10	9	13	10	9	6
10	43	31	24	19	38	28	22	18	22	18	14	17	13	11	12	9	8	12	9	8	6

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2648	2648	2648
5°	2587	3061	3560
10°	2347	4462	5902
15°	1994	5830	7126
20°	1624	6756	7263
25°	1354	7070	7115
30°	1142	7114	7102
35°	1010	6996	7286
40°	880	6843	7475
45°	797	6730	7504
50°	731	6629	7380
55°	700	6481	7053
60°	717	6196	6537
65°	745	5763	5827
70°	795	5026	4922
75°	880	4098	3841
80°	961	2842	2588
85°	857	1507	1325

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7504 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.8	0.5
10°-20°	327.3	2.1
20°-30°	572.4	3.7
30°-40°	736.9	4.8
40°-50°	823.1	5.3
50°-60°	788.3	5.1
60°-70°	624.7	4.0
70°-80°	367.3	2.4
80°-90°	108.6	0.7
90°-100°	831.4	5.4
100°-110°	2185.9	14.1
110°-120°	2266.5	14.6
120°-130°	1818.0	11.7
130°-140°	1426.5	9.2
140°-150°	1094.9	7.1
150°-160°	788.5	5.1
160°-170°	482.5	3.1
170°-180°	163.0	1.1
0°-30°	973.5	6.3
0°-40°	1710.4	11.0
0°-60°	3321.8	21.5
0°-90°	4422.5	28.6
90°-120°	5283.8	34.1
90°-150°	9623.2	62.2
90°-180°	11057.0	71.4
0°-180°	15479.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	571	571	571	571	571	
5°	556	596	672	760	787	51
15°	417	769	1296	1571	1621	116
25°	266	872	1544	1612	1613	123
35°	180	833	1454	1536	1597	112
45°	123	664	1285	1472	1538	95
55°	88	422	1090	1266	1301	80
65°	70	224	809	910	923	69
75°	51	138	444	488	490	54
85°	18	42	110	121	123	19
90°	12	32	87	44	44	11
95°	110	430	1432	738	502	122
105°	394	596	2417	3669	3423	417
115°	700	849	1936	3861	4407	691
125°	973	1091	1761	2975	3510	864
135°	1160	1276	1706	2402	2723	897
145°	1345	1431	1684	2049	2209	843
155°	1520	1563	1684	1849	1903	699
165°	1640	1662	1684	1750	1772	463
175°	1706	1706	1695	1717	1717	162
180°	1706	1706	1706	1706	1706	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	570.8	570.8	570.8	570.8	570.8	570.8	570.8	570.8	570.8	570.8	570.8
2.5°	570.8	570.8	574.5	576.3	580.0	581.8	585.5	589.2	600.2	602.0	605.7
5°	556.1	563.5	587.3	596.5	622.2	657.1	671.8	695.6	745.2	759.9	769.0
7.5°	534.1	550.6	609.3	624.0	688.3	780.0	818.6	870.0	948.9	987.4	1018.6
10°	499.2	534.1	638.7	673.6	778.2	917.7	989.3	1060.9	1180.2	1233.5	1253.7
12.5°	460.7	517.6	669.9	717.6	868.1	1072.0	1158.2	1237.1	1373.0	1444.5	1455.6
15°	416.6	493.7	699.3	769.0	963.6	1200.4	1295.9	1393.2	1519.8	1571.2	1584.0
17.5°	378.1	475.4	726.8	800.2	1037.0	1316.1	1413.3	1494.1	1596.9	1631.8	1640.9
20°	330.4	446.0	745.2	840.6	1114.2	1400.5	1494.1	1556.5	1626.2	1648.3	1651.9
22.5°	295.5	414.8	756.2	855.3	1165.6	1451.9	1530.8	1580.4	1628.1	1635.4	1637.3
25°	266.1	379.9	754.3	871.8	1209.6	1483.1	1543.7	1580.4	1607.9	1611.6	1611.6
27.5°	238.6	341.4	747.0	875.5	1242.7	1490.4	1538.1	1563.8	1576.7	1584.0	1584.0
30°	214.7	304.7	728.6	868.1	1257.3	1483.1	1521.6	1534.5	1547.3	1558.3	1563.8
32.5°	196.4	269.8	701.1	853.5	1259.2	1464.7	1492.3	1499.6	1518.0	1543.7	1552.8
35°	179.9	234.9	669.9	833.3	1248.2	1435.4	1453.7	1461.1	1497.8	1536.3	1549.2
37.5°	163.3	209.2	629.5	798.4	1231.6	1400.5	1413.3	1426.2	1483.1	1529.0	1543.7
40°	146.8	187.2	581.8	759.9	1205.9	1358.3	1369.3	1389.5	1464.7	1518.0	1532.6
42.5°	134.0	168.9	530.4	719.5	1172.9	1310.6	1327.1	1356.4	1442.7	1499.6	1516.1
45°	123.0	150.5	475.4	664.4	1130.7	1261.0	1284.9	1325.2	1417.0	1472.1	1486.8
47.5°	112.0	137.7	418.5	607.5	1084.8	1211.4	1242.7	1288.5	1382.1	1435.4	1448.2
50°	102.8	124.8	361.6	546.9	1035.2	1158.2	1194.9	1242.7	1338.1	1387.6	1404.2
52.5°	95.4	113.8	308.3	486.4	978.3	1103.2	1145.4	1194.9	1284.9	1332.6	1343.6
55°	88.1	104.6	262.5	422.1	919.5	1044.4	1090.3	1138.0	1226.1	1266.5	1273.9
57.5°	84.4	97.3	223.9	361.6	857.1	978.3	1029.7	1073.8	1156.4	1187.6	1194.9
60°	78.9	91.8	194.6	310.2	789.2	915.9	959.9	1004.0	1073.8	1099.5	1105.0
62.5°	73.4	88.1	172.5	260.6	719.5	842.4	886.5	926.9	985.6	1004.0	1011.3
65°	69.7	84.4	156.0	223.9	647.9	765.4	809.4	844.3	892.0	910.4	914.0
67.5°	66.1	80.8	143.2	192.7	576.3	688.3	721.3	754.3	791.1	809.4	811.2
70°	60.6	77.1	132.1	170.7	502.9	600.2	627.7	662.6	691.9	701.1	706.6
72.5°	56.9	71.6	124.8	154.2	427.6	515.7	541.4	561.6	587.3	596.5	596.5
75°	51.4	64.2	117.5	137.7	350.6	422.1	444.2	464.4	484.5	488.2	482.7
77.5°	45.9	56.9	100.9	115.6	273.5	334.0	352.4	363.4	379.9	383.6	385.4
80°	38.5	49.6	78.9	89.9	198.2	245.9	258.8	268.0	282.7	282.7	286.3
82.5°	29.4	38.5	56.9	64.2	134.0	168.9	179.9	185.4	194.6	194.6	194.6
85°	18.4	23.9	36.7	42.2	80.8	102.8	110.1	112.0	119.3	121.1	121.1
87.5°	9.2	12.8	23.9	25.7	42.2	53.2	53.2	56.9	56.9	55.1	53.2
90°	11.5	20.6	29.7	32.0	50.4	74.8	87.0	77.4	58.0	43.5	43.5
92.5°	45.8	123.6	201.5	221.0	310.6	430.2	490.0	429.4	308.3	217.5	208.9
95°	109.9	252.4	394.8	430.4	764.3	1209.4	1432.1	1277.9	969.6	738.4	712.1
97.5°	190.1	315.7	441.4	472.8	1029.6	1771.9	2143.0	2045.5	1850.7	1704.5	1654.7
100°	251.8	365.8	479.8	508.3	1126.1	1949.7	2361.6	2368.8	2383.0	2393.6	2334.2
102.5°	304.5	410.9	517.1	543.7	1170.3	2005.7	2423.4	2547.6	2795.8	2982.0	2931.2
105°	393.8	483.8	573.9	596.4	1203.1	2012.0	2416.6	2694.9	3251.5	3668.9	3641.6
107.5°	485.4	569.3	653.2	674.2	1209.2	1922.6	2279.2	2667.4	3443.8	4026.1	4032.7
110°	547.2	623.0	698.8	717.7	1200.1	1843.2	2164.8	2598.7	3466.7	4117.7	4146.1



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	607.9	680.1	752.3	770.4	1200.4	1773.8	2060.5	2504.7	3393.0	4059.2	4103.0
115°	699.5	766.1	832.7	849.4	1211.5	1694.3	1935.8	2363.6	3219.4	3861.2	3921.9
117.5°	789.9	850.4	911.0	926.1	1234.0	1644.6	1849.9	2236.1	3008.4	3587.6	3654.9
120°	842.5	899.5	956.5	970.7	1252.4	1627.8	1815.6	2168.4	2874.1	3403.4	3468.7
122.5°	894.0	951.6	1009.0	1023.4	1278.7	1619.1	1789.2	2106.9	2742.4	3219.0	3283.5
125°	973.0	1025.4	1077.8	1091.0	1314.1	1611.7	1760.6	2030.5	2570.3	2975.2	3034.5
127.5°	1037.2	1090.0	1143.0	1156.2	1349.7	1607.6	1736.6	1968.3	2431.8	2779.4	2829.5
130°	1071.5	1128.5	1185.5	1199.7	1375.6	1610.1	1727.4	1933.7	2346.4	2655.8	2702.2
132.5°	1107.0	1164.0	1221.0	1235.2	1396.6	1611.8	1719.4	1904.0	2273.4	2550.5	2591.9
135°	1159.6	1211.5	1263.5	1276.4	1419.5	1610.3	1705.6	1860.4	2169.7	2401.7	2437.4
137.5°	1213.5	1264.9	1316.2	1329.0	1453.8	1620.2	1703.4	1834.2	2095.6	2291.8	2321.0
140°	1258.1	1305.4	1352.7	1364.5	1474.8	1621.8	1695.3	1808.3	2034.3	2203.7	2231.0
142.5°	1292.4	1336.2	1379.9	1390.9	1492.4	1627.7	1695.3	1794.6	1993.0	2141.8	2165.3
145°	1345.1	1383.2	1421.4	1431.0	1515.3	1627.7	1683.9	1765.0	1927.3	2049.1	2066.9
147.5°	1397.7	1434.9	1472.1	1481.3	1548.9	1638.9	1683.9	1747.8	1875.4	1971.2	1986.0
150°	1432.1	1465.7	1499.2	1507.6	1566.3	1644.7	1683.9	1737.8	1845.7	1926.6	1938.5
152.5°	1467.6	1493.0	1518.5	1524.8	1577.9	1648.5	1683.9	1729.9	1822.0	1891.1	1900.1
155°	1520.3	1539.1	1557.9	1562.6	1603.0	1656.9	1683.9	1720.5	1793.8	1848.8	1854.8
157.5°	1559.2	1577.5	1595.8	1600.4	1628.2	1665.3	1683.9	1712.4	1769.4	1812.2	1816.4
160°	1585.5	1599.7	1614.0	1617.5	1639.6	1669.1	1683.9	1708.3	1757.2	1793.8	1796.2
162.5°	1611.8	1622.5	1633.2	1635.9	1651.9	1673.2	1683.9	1704.5	1745.7	1776.7	1779.0
165°	1640.4	1650.0	1659.7	1662.1	1669.4	1679.0	1683.9	1698.7	1728.2	1750.3	1752.7
167.5°	1666.7	1671.3	1675.9	1677.1	1683.1	1691.3	1695.3	1705.0	1724.3	1738.8	1739.9
170°	1683.9	1688.5	1693.1	1694.2	1694.6	1695.1	1695.3	1705.0	1724.3	1738.8	1738.8
172.5°	1693.1	1694.1	1695.1	1695.3	1695.3	1695.3	1695.3	1703.0	1718.2	1729.7	1728.8
175°	1705.6	1705.6	1705.6	1705.6	1702.2	1697.6	1695.3	1700.2	1709.8	1717.1	1717.1
177.5°	1705.6	1705.6	1705.6	1705.6	1703.0	1699.4	1697.6	1701.5	1709.1	1714.8	1713.8
180°	1705.6	1705.6	1705.6	1705.6	1705.6	1705.6	1705.6	1705.6	1705.6	1705.6	1705.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	570.8	570.8
2.5°	609.3	605.7
5°	783.7	787.4
7.5°	1055.4	1053.6
10°	1312.4	1328.9
12.5°	1499.6	1503.3
15°	1613.4	1620.7
17.5°	1657.4	1659.3
20°	1659.3	1655.6
22.5°	1639.1	1635.4
25°	1615.2	1613.4
27.5°	1593.2	1595.0
30°	1584.0	1589.5
32.5°	1584.0	1593.2
35°	1587.7	1596.9
37.5°	1585.9	1596.9
40°	1578.5	1591.4
42.5°	1558.3	1567.5
45°	1527.1	1538.1
47.5°	1486.8	1494.1
50°	1435.4	1442.7
52.5°	1371.1	1373.0
55°	1294.0	1301.4
57.5°	1211.4	1213.3
60°	1119.7	1125.2
62.5°	1022.3	1022.3
65°	919.5	923.2
67.5°	813.1	822.3
70°	704.8	706.6
72.5°	598.3	598.3
75°	488.2	490.0
77.5°	383.6	383.6
80°	284.5	286.3
82.5°	196.4	200.1
85°	123.0	123.0
87.5°	56.9	51.4
90°	43.5	43.5
92.5°	174.3	139.7
95°	607.3	502.5
97.5°	1455.2	1255.8
100°	2096.7	1859.1
102.5°	2727.7	2524.2
105°	3532.2	3422.8
107.5°	4059.1	4085.6
110°	4260.1	4374.1



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4278.0	4453.0
115°	4164.6	4407.2
117.5°	3924.1	4193.2
120°	3730.2	3991.7
122.5°	3541.5	3799.4
125°	3272.2	3509.8
127.5°	3030.0	3230.5
130°	2887.3	3072.5
132.5°	2757.8	2923.7
135°	2580.4	2723.4
137.5°	2438.0	2555.0
140°	2340.4	2449.8
142.5°	2259.5	2353.6
145°	2138.1	2209.4
147.5°	2045.0	2104.0
150°	1986.4	2034.3
152.5°	1936.2	1972.4
155°	1878.7	1902.6
157.5°	1833.1	1849.9
160°	1805.9	1815.6
162.5°	1788.0	1797.2
165°	1762.4	1772.1
167.5°	1744.0	1748.0
170°	1738.8	1738.8
172.5°	1725.3	1721.7
175°	1717.1	1717.1
177.5°	1709.7	1705.6
180°	1705.6	1705.6



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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	2.00	2.72	3.12	3.83	5.38	15.18	15.89	16.29	17.01	18.55
	3H	2.69	3.34	3.82	4.46	6.02	17.01	17.65	18.13	18.77	20.33
	4H	2.99	3.60	4.12	4.72	6.29	17.64	18.26	18.78	19.38	20.94
	6H	3.23	3.79	4.37	4.92	6.49	18.07	18.63	19.21	19.75	21.33
	8H	3.29	3.83	4.44	4.97	6.54	18.18	18.72	19.33	19.86	21.43
	12H	3.30	3.81	4.45	4.95	6.54	18.25	18.75	19.40	19.89	21.48
4H	2H	9.20	9.81	10.34	10.93	12.50	15.43	16.05	16.58	17.17	18.73
	3H	10.75	11.26	11.90	12.41	13.99	17.47	17.98	18.61	19.13	20.70
	4H	10.84	11.31	11.99	12.45	14.04	18.23	18.70	19.38	19.83	21.43
	6H	10.84	11.24	12.00	12.40	13.99	18.76	19.16	19.91	20.32	21.91
	8H	10.81	11.19	11.97	12.34	13.95	18.92	19.29	20.07	20.44	22.05
	12H	10.76	11.10	11.94	12.27	13.88	19.00	19.34	20.17	20.51	22.12
8H	4H	12.27	12.65	13.43	13.80	15.41	18.27	18.65	19.43	19.80	21.41
	6H	12.51	12.82	13.68	14.01	15.61	18.90	19.21	20.07	20.40	22.00
	8H	12.52	12.79	13.70	13.97	15.59	19.11	19.39	20.30	20.56	22.18
	12H	12.48	12.72	13.67	13.89	15.55	19.25	19.49	20.44	20.66	22.32
12H	4H	12.41	12.75	13.58	13.91	15.52	18.22	18.56	19.39	19.72	21.34
	6H	12.76	13.03	13.95	14.21	15.83	18.88	19.15	20.06	20.32	21.95
	8H	12.83	13.06	14.01	14.23	15.89	19.10	19.34	20.29	20.51	22.17