

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: P938567

Luminaire Tested: SQ4-FB-150U-125D-93050-1D-UNV-STD-W-8-4000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938567
REPORT IS A COMBINATION OF REPORTS P933648 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-125D-93050-1D-UNV-STD-W-8-4000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

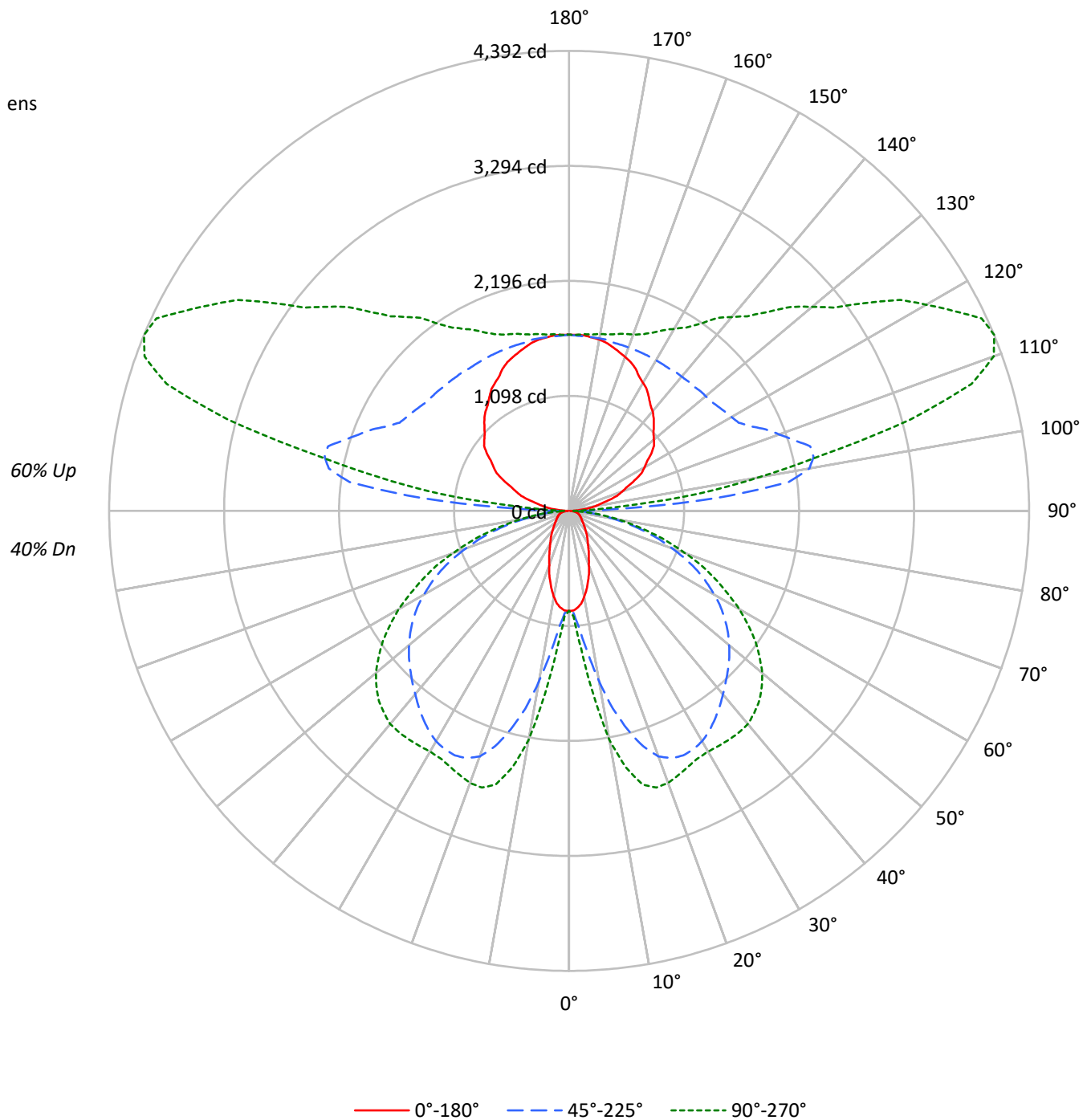
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18283.4 lumens
Efficiency: N/A
Efficacy: 109.9 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: General Diffuse

Input Watts (W): 166.4
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	0
RCR																		
0	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	40
1	95	91	87	83	86	83	79	76	68	65	63	54	52	51	41	40	39	33
2	86	79	72	67	78	72	66	62	59	55	51	47	44	42	36	34	32	27
3	78	69	61	55	71	63	56	51	51	47	43	41	37	35	31	29	27	22
4	71	60	52	46	65	55	48	43	45	40	36	36	32	29	27	25	23	19
5	65	53	45	39	59	49	42	36	40	35	30	32	28	25	24	22	19	16
6	60	48	39	34	54	44	36	31	36	30	26	29	25	21	22	19	17	14
7	55	43	35	29	50	39	32	27	32	27	23	26	22	19	20	17	15	12
8	51	39	31	25	46	35	28	24	29	24	20	23	19	16	18	15	13	10
9	47	35	27	22	43	32	25	21	27	21	18	21	17	15	17	14	11	9
10	44	32	25	20	40	29	23	18	24	19	16	20	16	13	15	12	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4421	4421	4421
5°	4318	5109	5942
10°	3917	7448	9851
15°	3329	9730	11895
20°	2710	11276	12122
25°	2261	11800	11876
30°	1906	11874	11854
35°	1686	11677	12160
40°	1469	11420	12477
45°	1330	11233	12526
50°	1220	11064	12319
55°	1169	10817	11772
60°	1196	10341	10910
65°	1245	9619	9726
70°	1326	8389	8216
75°	1470	6840	6412
80°	1607	4743	4320
85°	1425	2517	2212

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 12526 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.2	0.7
10°-20°	546.2	3.0
20°-30°	955.5	5.2
30°-40°	1229.9	6.7
40°-50°	1373.8	7.5
50°-60°	1315.8	7.2
60°-70°	1042.8	5.7
70°-80°	613.2	3.4
80°-90°	176.8	1.0
90°-100°	820.1	4.5
100°-110°	2156.0	11.8
110°-120°	2235.6	12.2
120°-130°	1793.2	9.8
130°-140°	1407.0	7.7
140°-150°	1079.9	5.9
150°-160°	777.7	4.3
160°-170°	475.9	2.6
170°-180°	160.8	0.9
0°-30°	1624.9	8.9
0°-40°	2854.9	15.6
0°-60°	5544.4	30.3
0°-90°	7377.2	40.3
90°-120°	5211.7	28.5
90°-150°	9491.8	51.9
90°-180°	10906.0	59.6
0°-180°	18283.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	953	953	953	953	953	
5°	928	996	1121	1268	1314	86
15°	695	1284	2163	2622	2705	194
25°	444	1455	2576	2690	2693	205
35°	300	1391	2426	2564	2665	187
45°	205	1109	2144	2457	2567	159
55°	147	705	1820	2114	2172	134
65°	116	374	1351	1520	1541	115
75°	86	230	741	815	818	90
85°	31	70	184	202	205	33
90°	11	32	86	43	43	11
95°	108	424	1412	728	496	120
105°	388	588	2384	3619	3376	412
115°	690	838	1909	3808	4347	681
125°	960	1076	1737	2934	3462	852
135°	1144	1259	1682	2369	2686	885
145°	1327	1411	1661	2021	2179	831
155°	1500	1541	1661	1824	1877	689
165°	1618	1639	1661	1726	1748	457
175°	1682	1682	1672	1694	1694	160
180°	1682	1682	1682	1682	1682	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	952.8	952.8	952.8	952.8	952.8	952.8	952.8	952.8	952.8	952.8	952.8
2.5°	952.8	952.8	958.9	962.0	968.1	971.1	977.3	983.5	1001.8	1004.9	1011.0
5°	928.2	940.6	980.4	995.7	1038.6	1096.8	1121.3	1161.1	1243.8	1268.3	1283.6
7.5°	891.5	919.1	1017.1	1041.7	1148.8	1302.1	1366.3	1452.1	1583.9	1648.2	1700.3
10°	833.3	891.5	1066.1	1124.3	1299.0	1531.8	1651.3	1770.8	1969.9	2058.8	2092.5
12.5°	768.9	864.0	1118.2	1197.9	1449.1	1789.1	1933.2	2064.9	2291.6	2411.1	2429.5
15°	695.4	824.1	1167.2	1283.6	1608.4	2003.6	2162.9	2325.3	2536.7	2622.4	2643.9
17.5°	631.1	793.5	1213.2	1335.7	1730.9	2196.6	2358.9	2493.8	2665.3	2723.5	2738.8
20°	551.4	744.5	1243.8	1403.1	1859.7	2337.6	2493.8	2597.9	2714.4	2751.1	2757.2
22.5°	493.2	692.4	1262.2	1427.6	1945.4	2423.3	2555.1	2637.7	2717.4	2729.7	2732.8
25°	444.3	634.2	1259.2	1455.2	2019.0	2475.4	2576.5	2637.7	2683.7	2689.9	2689.9
27.5°	398.3	569.8	1246.9	1461.4	2074.1	2487.7	2567.3	2610.2	2631.7	2643.9	2643.9
30°	358.4	508.5	1216.3	1449.1	2098.6	2475.4	2539.7	2561.2	2582.6	2601.0	2610.2
32.5°	327.8	450.3	1170.3	1424.5	2101.6	2444.7	2490.7	2503.0	2533.6	2576.5	2591.8
35°	300.2	392.1	1118.2	1390.9	2083.2	2395.8	2426.4	2438.6	2499.9	2564.2	2585.7
37.5°	272.6	349.2	1050.8	1332.7	2055.7	2337.6	2358.9	2380.4	2475.4	2552.0	2576.5
40°	245.1	312.5	971.1	1268.3	2012.8	2267.1	2285.4	2319.1	2444.7	2533.6	2558.1
42.5°	223.7	281.9	885.4	1201.0	1957.7	2187.4	2215.0	2264.0	2408.0	2503.0	2530.6
45°	205.3	251.2	793.5	1109.0	1887.2	2104.7	2144.5	2211.9	2365.1	2457.1	2481.5
47.5°	186.9	229.7	698.5	1014.1	1810.6	2021.9	2074.1	2150.7	2306.9	2395.8	2417.2
50°	171.5	208.4	603.6	912.9	1727.9	1933.2	1994.4	2074.1	2233.4	2316.1	2343.6
52.5°	159.3	189.9	514.7	811.8	1632.9	1841.2	1911.7	1994.4	2144.5	2224.2	2242.5
55°	147.1	174.6	438.1	704.7	1534.9	1743.2	1819.8	1899.5	2046.5	2113.9	2126.1
57.5°	140.9	162.4	373.7	603.6	1430.7	1632.9	1718.7	1792.2	1930.1	1982.1	1994.4
60°	131.7	153.2	324.8	517.8	1317.4	1528.7	1602.2	1675.8	1792.2	1835.1	1844.3
62.5°	122.6	147.1	288.0	435.0	1201.0	1406.2	1479.8	1547.1	1645.1	1675.8	1688.0
65°	116.4	140.9	260.4	373.7	1081.5	1277.5	1351.0	1409.2	1488.9	1519.6	1525.6
67.5°	110.2	134.8	239.0	321.7	962.0	1148.8	1204.0	1259.2	1320.4	1351.0	1354.1
70°	101.1	128.7	220.6	284.9	839.4	1001.8	1047.7	1105.9	1155.0	1170.3	1179.5
72.5°	95.0	119.5	208.4	257.3	713.8	860.9	903.8	937.5	980.4	995.7	995.7
75°	85.8	107.3	196.1	229.7	585.2	704.7	741.4	775.1	808.8	814.9	805.8
77.5°	76.6	95.0	168.5	193.0	456.5	557.6	588.2	606.6	634.2	640.3	643.4
80°	64.4	82.7	131.7	150.1	330.8	410.5	431.9	447.3	471.8	471.8	477.9
82.5°	49.1	64.4	95.0	107.3	223.7	281.9	300.2	309.4	324.8	324.8	324.8
85°	30.6	39.8	61.3	70.4	134.8	171.5	183.8	186.9	199.1	202.2	202.2
87.5°	15.3	21.5	39.8	42.9	70.4	88.9	88.9	95.0	95.0	91.9	88.9
90°	11.3	20.4	29.3	31.6	49.7	73.8	85.8	76.3	57.2	42.9	42.9
92.5°	45.2	121.9	198.8	218.0	306.4	424.3	483.3	423.5	304.1	214.5	206.0
95°	108.4	248.9	389.4	424.5	753.8	1192.9	1412.5	1260.4	956.4	728.3	702.4
97.5°	187.5	311.4	435.4	466.3	1015.5	1747.7	2113.7	2017.6	1825.4	1681.2	1632.1
100°	248.4	360.8	473.2	501.4	1110.7	1923.1	2329.3	2336.4	2350.4	2360.9	2302.4
102.5°	300.3	405.2	510.1	536.3	1154.4	1978.3	2390.3	2512.8	2757.7	2941.3	2891.2
105°	388.4	477.2	566.1	588.3	1186.7	1984.6	2383.6	2658.1	3207.1	3618.8	3591.9
107.5°	478.7	561.6	644.3	665.0	1192.7	1896.3	2248.1	2630.9	3396.8	3971.1	3977.6
110°	539.7	614.5	689.3	707.9	1183.7	1818.0	2135.2	2563.2	3419.3	4061.5	4089.5



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	599.6	670.8	742.1	759.9	1184.0	1749.6	2032.4	2470.5	3346.7	4003.8	4047.0
115°	689.9	755.6	821.3	837.8	1195.0	1671.2	1909.3	2331.3	3175.4	3808.5	3868.3
117.5°	779.1	838.8	898.6	913.5	1217.2	1622.1	1824.6	2205.5	2967.3	3538.6	3605.0
120°	831.0	887.2	943.4	957.5	1235.3	1605.6	1790.8	2138.8	2834.9	3356.9	3421.3
122.5°	881.8	938.6	995.2	1009.4	1261.3	1597.0	1764.8	2078.2	2705.0	3175.0	3238.7
125°	959.7	1011.4	1063.1	1076.1	1296.2	1589.7	1736.6	2002.8	2535.2	2934.5	2993.1
127.5°	1023.0	1075.2	1127.4	1140.4	1331.2	1585.7	1712.8	1941.4	2398.6	2741.5	2790.9
130°	1056.9	1113.1	1169.3	1183.3	1356.8	1588.1	1703.8	1907.3	2314.3	2619.5	2665.2
132.5°	1091.9	1148.1	1204.3	1218.3	1377.6	1589.8	1695.9	1878.0	2242.4	2515.6	2556.5
135°	1143.8	1195.0	1246.2	1259.0	1400.1	1588.3	1682.3	1834.9	2140.1	2368.9	2404.1
137.5°	1196.9	1247.6	1298.2	1310.9	1434.0	1598.1	1680.2	1809.1	2067.0	2260.5	2289.3
140°	1240.9	1287.6	1334.2	1345.9	1454.7	1599.7	1672.2	1783.6	2006.5	2173.6	2200.5
142.5°	1274.7	1317.9	1361.1	1371.9	1472.0	1605.5	1672.2	1770.0	1965.7	2112.6	2135.7
145°	1326.7	1364.3	1402.0	1411.4	1494.6	1605.5	1660.9	1740.9	1901.0	2021.1	2038.7
147.5°	1378.7	1415.3	1452.0	1461.1	1527.7	1616.5	1660.9	1723.9	1849.8	1944.3	1958.9
150°	1412.5	1445.6	1478.8	1487.0	1544.9	1622.2	1660.9	1714.1	1820.5	1900.3	1912.1
152.5°	1447.5	1472.6	1497.8	1504.0	1556.3	1626.0	1660.9	1706.3	1797.1	1865.3	1874.1
155°	1499.5	1518.0	1536.6	1541.2	1581.1	1634.3	1660.9	1697.0	1769.3	1823.5	1829.4
157.5°	1537.9	1556.0	1574.0	1578.5	1605.9	1642.6	1660.9	1689.0	1745.2	1787.4	1791.6
160°	1563.8	1577.9	1591.9	1595.4	1617.3	1646.3	1660.9	1685.0	1733.2	1769.3	1771.7
162.5°	1589.8	1600.3	1610.9	1613.5	1629.3	1650.4	1660.9	1681.2	1721.9	1752.4	1754.7
165°	1618.0	1627.5	1637.1	1639.4	1646.6	1656.1	1660.9	1675.5	1704.6	1726.4	1728.8
167.5°	1644.0	1648.5	1653.0	1654.2	1660.2	1668.2	1672.2	1681.7	1700.8	1715.1	1716.1
170°	1660.9	1665.4	1669.9	1671.1	1671.5	1671.9	1672.2	1681.7	1700.8	1715.1	1715.1
172.5°	1669.9	1670.9	1671.9	1672.2	1672.2	1672.2	1672.2	1679.7	1694.7	1706.0	1705.1
175°	1682.3	1682.3	1682.3	1682.3	1679.0	1674.5	1672.2	1677.0	1686.5	1693.6	1693.6
177.5°	1682.3	1682.3	1682.3	1682.3	1679.7	1676.2	1674.5	1678.3	1685.8	1691.4	1690.4
180°	1682.3	1682.3	1682.3	1682.3	1682.3	1682.3	1682.3	1682.3	1682.3	1682.3	1682.3



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	952.8	952.8
2.5°	1017.1	1011.0
5°	1308.1	1314.3
7.5°	1761.5	1758.5
10°	2190.5	2218.1
12.5°	2503.0	2509.1
15°	2692.9	2705.2
17.5°	2766.4	2769.5
20°	2769.5	2763.4
22.5°	2735.8	2729.7
25°	2696.0	2692.9
27.5°	2659.2	2662.3
30°	2643.9	2653.1
32.5°	2643.9	2659.2
35°	2650.0	2665.3
37.5°	2647.0	2665.3
40°	2634.7	2656.2
42.5°	2601.0	2616.4
45°	2548.9	2567.3
47.5°	2481.5	2493.8
50°	2395.8	2408.0
52.5°	2288.5	2291.6
55°	2159.8	2172.1
57.5°	2021.9	2025.0
60°	1868.8	1878.0
62.5°	1706.4	1706.4
65°	1534.9	1541.0
67.5°	1357.2	1372.5
70°	1176.4	1179.5
72.5°	998.8	998.8
75°	814.9	818.0
77.5°	640.3	640.3
80°	474.8	477.9
82.5°	327.8	333.9
85°	205.3	205.3
87.5°	95.0	85.8
90°	42.9	42.9
92.5°	171.9	137.8
95°	599.0	495.7
97.5°	1435.3	1238.6
100°	2068.0	1833.7
102.5°	2690.4	2489.7
105°	3484.0	3376.1
107.5°	4003.7	4029.8
110°	4201.9	4314.4



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4219.6	4392.2
115°	4107.7	4347.0
117.5°	3870.5	4136.0
120°	3679.3	3937.2
122.5°	3493.1	3747.5
125°	3227.5	3461.9
127.5°	2988.7	3186.3
130°	2847.9	3030.6
132.5°	2720.1	2883.8
135°	2545.1	2686.2
137.5°	2404.7	2520.1
140°	2308.4	2416.3
142.5°	2228.6	2321.5
145°	2108.9	2179.2
147.5°	2017.1	2075.3
150°	1959.3	2006.5
152.5°	1909.8	1945.5
155°	1853.0	1876.6
157.5°	1808.1	1824.6
160°	1781.3	1790.8
162.5°	1763.6	1772.7
165°	1738.4	1747.9
167.5°	1720.2	1724.2
170°	1715.1	1715.1
172.5°	1701.7	1698.2
175°	1693.6	1693.6
177.5°	1686.3	1682.3
180°	1682.3	1682.3



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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	5.22	6.03	6.25	7.07	8.47	18.40	19.21	19.42	20.25	21.65
	3H	5.92	6.65	6.96	7.70	9.11	20.23	20.96	21.27	22.01	23.43
	4H	6.21	6.90	7.27	7.96	9.38	20.87	21.56	21.92	22.62	24.04
	6H	6.46	7.10	7.52	8.15	9.59	21.30	21.94	22.36	22.99	24.43
	8H	6.53	7.14	7.59	8.21	9.64	21.42	22.03	22.49	23.10	24.53
	12H	6.55	7.12	7.62	8.19	9.65	21.49	22.06	22.56	23.13	24.59
4H	2H	12.43	13.12	13.48	14.17	15.59	18.66	19.35	19.72	20.41	21.83
	3H	13.99	14.57	15.05	15.65	17.09	20.70	21.28	21.77	22.36	23.80
	4H	14.08	14.61	15.15	15.68	17.14	21.47	22.00	22.54	23.07	24.53
	6H	14.09	14.55	15.17	15.64	17.09	22.01	22.46	23.09	23.56	25.01
	8H	14.06	14.49	15.15	15.58	17.05	22.17	22.59	23.25	23.68	25.15
	12H	14.02	14.40	15.12	15.50	16.98	22.26	22.64	23.36	23.74	25.22
8H	4H	15.52	15.95	16.60	17.03	18.51	21.53	21.95	22.61	23.04	24.51
	6H	15.76	16.11	16.87	17.24	18.71	22.15	22.51	23.26	23.63	25.10
	8H	15.78	16.09	16.89	17.20	18.69	22.37	22.68	23.48	23.79	25.28
	12H	15.74	16.02	16.86	17.12	18.65	22.51	22.79	23.63	23.89	25.42
12H	4H	15.66	16.05	16.76	17.15	18.62	21.48	21.86	22.57	22.96	24.44
	6H	16.02	16.33	17.13	17.44	18.93	22.13	22.44	23.25	23.55	25.04
	8H	16.09	16.36	17.20	17.47	18.99	22.36	22.63	23.48	23.74	25.27