

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: P938230

Luminaire Tested: SQ4-FB-150U-050D-92765-1D-UNV-STD-W-12-6500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938230
REPORT IS A COMBINATION OF REPORTS P933621 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-050D-92765-1D-UNV-STD-W-12-6500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

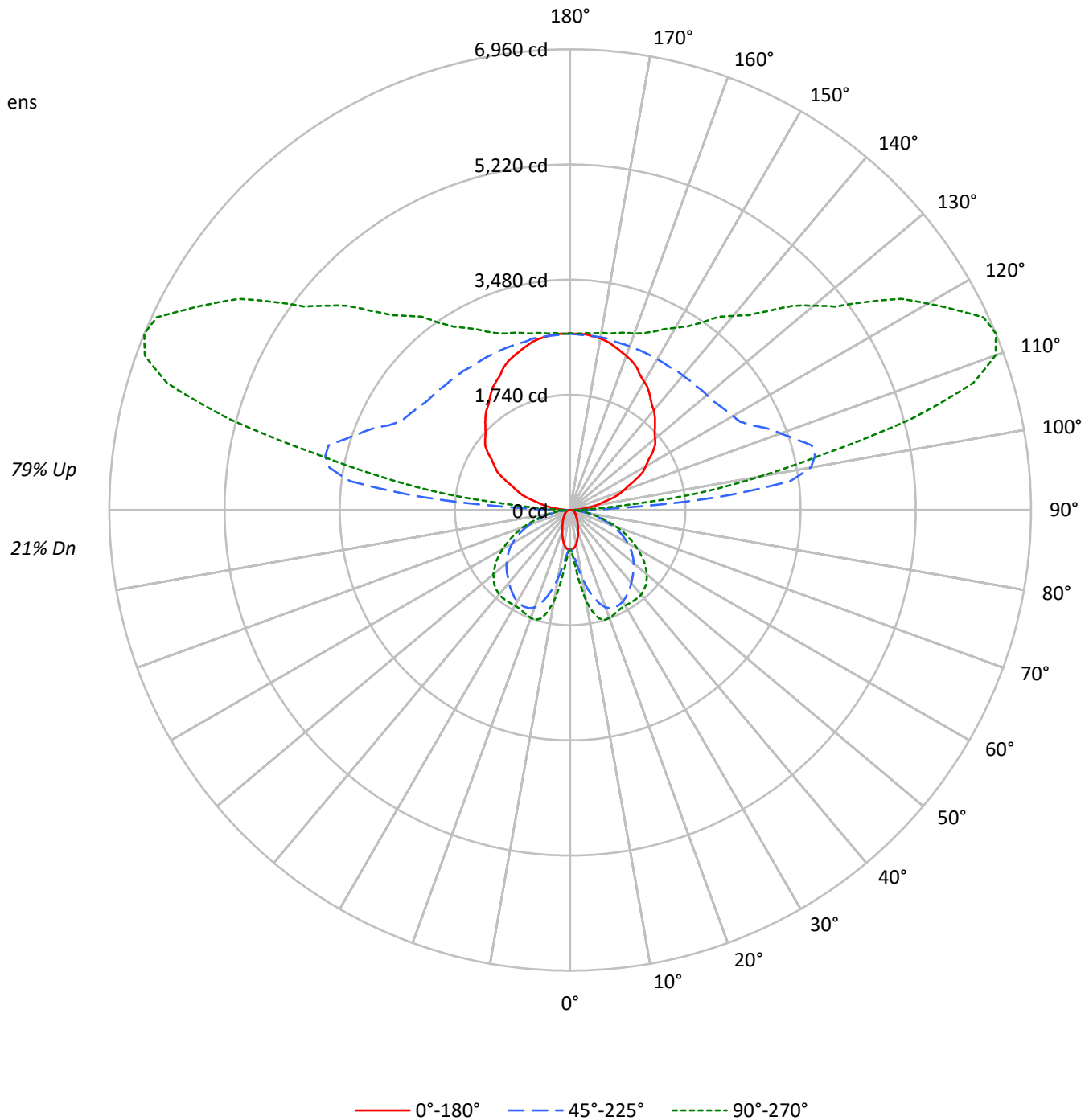
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21920.7 lumens
Efficiency: N/A
Efficacy: 131.4 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 166.8
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

TEST NUMBER: P938230
CATALOG NUMBER: SQ4-FB-150U-050D-92765-1D-UNV-STD-W-12-6500K

Luminous Intensity Polar Plot





TEST NUMBER: P938230

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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	100	100	100	100	89	89	89	89	67	67	67	48	48	48	30	30	30	21
1	91	87	83	80	80	77	74	71	58	56	54	41	40	39	26	25	24	17
2	83	75	70	65	73	67	62	58	51	48	45	36	34	32	22	21	20	14
3	75	66	59	53	66	59	53	48	45	40	37	32	29	27	20	18	17	12
4	69	58	50	45	60	52	45	40	39	35	31	28	25	23	17	16	14	10
5	63	51	44	38	55	46	39	34	35	30	27	25	22	19	15	14	12	8
6	57	46	38	32	51	41	34	29	31	26	23	22	19	17	14	12	11	7
7	53	41	33	28	47	37	30	25	28	23	20	20	17	14	12	11	9	6
8	49	37	30	24	43	33	27	22	25	21	17	18	15	13	11	9	8	5
9	45	34	26	21	40	30	24	19	23	18	15	16	13	11	10	9	7	5
10	42	31	24	19	37	27	21	17	21	17	14	15	12	10	10	8	6	4

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1851	1851	1851
5°	1809	2139	2488
10°	1641	3120	4124
15°	1396	4077	4980
20°	1136	4725	5076
25°	948	4946	4972
30°	800	4979	4963
35°	708	4897	5091
40°	617	4791	5224
45°	559	4714	5244
50°	514	4645	5157
55°	492	4543	4929
60°	504	4346	4568
65°	526	4044	4072
70°	561	3530	3440
75°	624	2880	2684
80°	687	2000	1809
85°	622	1063	926

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 90°
 Luminance: 6644 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.4	0.4
10°-20°	343.0	1.6
20°-30°	600.0	2.7
30°-40°	772.4	3.5
40°-50°	862.8	3.9
50°-60°	826.3	3.8
60°-70°	654.9	3.0
70°-80°	385.1	1.8
80°-90°	117.2	0.5
90°-100°	1299.5	5.9
100°-110°	3416.4	15.6
110°-120°	3542.4	16.2
120°-130°	2841.4	13.0
130°-140°	2229.5	10.2
140°-150°	1711.2	7.8
150°-160°	1232.4	5.6
160°-170°	754.0	3.4
170°-180°	254.8	1.2
0°-30°	1020.5	4.7
0°-40°	1792.9	8.2
0°-60°	3482.0	15.9
0°-90°	4639.1	21.2
90°-120°	8258.2	37.7
90°-150°	15040.4	68.6
90°-180°	17282.0	78.8
0°-180°	21920.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	598	598	598	598	598	
5°	583	625	704	796	825	54
15°	437	806	1358	1647	1699	122
25°	279	914	1618	1689	1691	129
35°	189	874	1524	1610	1674	118
45°	129	696	1347	1543	1612	100
55°	92	442	1143	1328	1364	84
65°	73	235	848	954	968	72
75°	54	144	466	512	514	56
85°	19	44	115	127	129	20
90°	18	50	136	68	68	16
95°	172	673	2238	1154	785	191
105°	616	932	3777	5734	5350	652
115°	1093	1328	3026	6035	6888	1080
125°	1521	1705	2752	4650	5486	1350
135°	1812	1995	2666	3754	4256	1402
145°	2102	2236	2632	3203	3453	1317
155°	2376	2442	2632	2890	2974	1092
165°	2564	2598	2632	2736	2770	724
175°	2666	2666	2650	2684	2684	253
180°	2666	2666	2666	2666	2666	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	598.4	598.4	598.4	598.4	598.4	598.4	598.4	598.4	598.4	598.4	598.4
2.5°	598.4	598.4	602.2	604.1	607.9	609.9	613.8	617.6	629.2	631.1	634.9
5°	583.0	590.6	615.7	625.3	652.2	688.7	704.1	729.2	781.1	796.5	806.2
7.5°	559.9	577.2	638.7	654.1	721.5	817.7	858.1	912.0	994.7	1035.1	1067.8
10°	523.3	559.9	669.5	706.1	815.7	962.0	1037.0	1112.1	1237.1	1293.0	1314.1
12.5°	482.9	542.5	702.2	752.2	910.0	1123.6	1214.1	1296.8	1439.2	1514.2	1525.7
15°	436.8	517.6	733.0	806.2	1010.1	1258.3	1358.4	1460.3	1593.1	1646.9	1660.4
17.5°	396.3	498.3	761.9	838.9	1087.1	1379.5	1481.4	1566.1	1673.9	1710.4	1720.1
20°	346.3	467.6	781.1	881.2	1167.9	1468.0	1566.1	1631.6	1704.7	1727.7	1731.6
22.5°	309.8	434.8	792.7	896.6	1221.7	1521.9	1604.6	1656.6	1706.6	1714.3	1716.2
25°	279.0	398.3	790.8	913.9	1267.9	1554.6	1618.1	1656.6	1685.4	1689.3	1689.3
27.5°	250.1	357.9	783.0	917.8	1302.5	1562.3	1612.3	1639.2	1652.7	1660.4	1660.4
30°	225.1	319.4	763.8	910.0	1317.9	1554.6	1595.0	1608.5	1621.9	1633.5	1639.2
32.5°	205.9	282.8	734.9	894.6	1319.8	1535.4	1564.2	1571.9	1591.1	1618.1	1627.7
35°	188.6	246.3	702.2	873.5	1308.4	1504.6	1523.8	1531.5	1570.0	1610.4	1623.8
37.5°	171.3	219.4	660.0	837.0	1291.0	1468.0	1481.4	1494.9	1554.6	1602.7	1618.1
40°	153.9	196.2	609.9	796.5	1264.1	1423.8	1435.3	1456.5	1535.4	1591.1	1606.5
42.5°	140.5	177.0	556.0	754.2	1229.5	1373.8	1391.1	1421.9	1512.2	1571.9	1589.2
45°	128.9	157.8	498.3	696.5	1185.2	1321.7	1346.8	1389.2	1485.4	1543.0	1558.4
47.5°	117.3	144.3	438.7	636.8	1137.1	1269.8	1302.5	1350.6	1448.7	1504.6	1518.1
50°	107.8	130.8	379.0	573.3	1085.1	1214.1	1252.5	1302.5	1402.6	1454.6	1471.9
52.5°	100.0	119.3	323.2	509.8	1025.5	1156.3	1200.6	1252.5	1346.8	1396.8	1408.4
55°	92.4	109.7	275.1	442.5	963.9	1094.7	1142.8	1192.9	1285.2	1327.6	1335.2
57.5°	88.5	101.9	234.7	379.0	898.5	1025.5	1079.4	1125.5	1212.1	1244.9	1252.5
60°	82.7	96.2	204.0	325.2	827.3	960.1	1006.3	1052.4	1125.5	1152.5	1158.2
62.5°	77.0	92.4	180.8	273.2	754.2	883.1	929.3	971.6	1033.2	1052.4	1060.1
65°	73.1	88.5	163.5	234.7	679.2	802.3	848.5	885.1	935.1	954.3	958.1
67.5°	69.2	84.6	150.0	202.0	604.1	721.5	756.2	790.8	829.2	848.5	850.4
70°	63.5	80.8	138.6	178.9	527.1	629.2	658.1	694.6	725.4	734.9	740.8
72.5°	59.7	75.1	130.8	161.6	448.3	540.6	567.6	588.7	615.7	625.3	625.3
75°	53.8	67.3	123.2	144.3	367.5	442.5	465.6	486.8	507.9	511.8	506.0
77.5°	48.1	59.7	105.9	121.2	286.7	350.2	369.4	380.9	398.3	402.1	404.0
80°	40.4	51.9	82.7	94.3	207.8	257.8	271.3	280.9	296.3	296.3	300.1
82.5°	30.8	40.4	59.7	67.3	140.5	177.0	188.6	194.3	204.0	204.0	204.0
85°	19.2	25.1	38.4	44.3	84.6	107.8	115.4	117.3	125.1	127.0	127.0
87.5°	9.7	13.5	25.1	27.0	44.3	55.8	55.8	59.7	59.7	57.8	55.8
90°	17.9	32.2	46.6	50.1	78.7	116.8	136.0	120.9	90.6	68.0	68.0
92.5°	71.5	193.2	314.9	345.3	485.5	672.3	765.7	671.1	481.8	339.9	326.4
95°	171.7	394.3	617.0	672.7	1194.6	1890.4	2238.3	1997.3	1515.5	1154.0	1113.1
97.5°	297.0	493.4	689.8	738.9	1609.1	2769.2	3349.3	3197.0	2892.5	2664.0	2586.1
100°	393.6	571.7	749.8	794.4	1760.0	3047.3	3691.0	3702.1	3724.4	3741.1	3648.3
102.5°	475.9	642.1	808.3	849.9	1829.1	3134.8	3787.7	3981.7	4369.7	4660.8	4581.2
105°	615.5	756.3	897.0	932.2	1880.4	3144.7	3776.9	4211.8	5081.8	5734.2	5691.5
107.5°	758.6	889.8	1021.0	1053.8	1889.9	3004.7	3562.2	4168.9	5382.3	6292.4	6302.7
110°	855.2	973.7	1092.2	1121.8	1875.7	2880.7	3383.3	4061.6	5418.2	6435.6	6480.1



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	950.1	1063.0	1175.9	1204.1	1876.2	2772.4	3220.5	3914.7	5303.0	6344.3	6412.7
115°	1093.2	1197.3	1301.6	1327.6	1893.5	2648.2	3025.5	3694.3	5031.7	6034.8	6129.7
117.5°	1234.5	1329.1	1423.8	1447.4	1928.6	2570.3	2891.2	3494.8	4701.9	5607.2	5712.4
120°	1316.8	1405.9	1494.9	1517.2	1957.3	2544.1	2837.6	3389.0	4491.9	5319.1	5421.3
122.5°	1397.3	1487.2	1577.0	1599.5	1998.5	2530.5	2796.5	3293.0	4286.2	5031.1	5131.9
125°	1520.8	1602.7	1684.6	1705.1	2054.0	2519.2	2751.7	3173.6	4017.3	4650.0	4742.8
127.5°	1620.9	1703.6	1786.4	1807.0	2109.4	2512.6	2714.2	3076.4	3800.8	4344.1	4422.4
130°	1674.7	1763.7	1852.7	1875.0	2149.9	2516.5	2699.8	3022.2	3667.2	4150.8	4223.2
132.5°	1730.1	1819.2	1908.2	1930.5	2182.7	2519.1	2687.3	2976.0	3553.3	3986.3	4051.1
135°	1812.4	1893.5	1974.6	1994.9	2218.6	2516.8	2665.9	2907.6	3391.0	3753.6	3809.5
137.5°	1896.5	1976.8	2057.2	2077.2	2272.2	2532.2	2662.2	2866.6	3275.3	3581.9	3627.6
140°	1966.3	2040.2	2114.2	2132.7	2305.0	2534.8	2649.7	2826.2	3179.3	3444.1	3486.9
142.5°	2020.0	2088.3	2156.7	2173.8	2332.4	2544.0	2649.7	2804.8	3114.9	3347.5	3384.3
145°	2102.3	2162.0	2221.5	2236.4	2368.2	2544.0	2631.8	2758.6	3012.3	3202.6	3230.4
147.5°	2184.5	2242.6	2300.6	2315.1	2420.7	2561.4	2631.8	2731.7	2931.2	3080.9	3104.0
150°	2238.3	2290.8	2343.2	2356.3	2448.1	2570.6	2631.8	2716.2	2884.7	3011.1	3029.8
152.5°	2293.7	2333.5	2373.2	2383.1	2466.0	2576.6	2631.8	2703.8	2847.7	2955.7	2969.8
155°	2376.0	2405.5	2434.8	2442.2	2505.4	2589.7	2631.8	2689.1	2803.7	2889.5	2898.9
157.5°	2436.9	2465.4	2494.0	2501.2	2544.7	2602.8	2631.8	2676.4	2765.4	2832.2	2838.8
160°	2478.0	2500.3	2522.5	2528.1	2562.7	2608.8	2631.8	2670.0	2746.3	2803.6	2807.4
162.5°	2519.1	2535.8	2552.5	2556.7	2581.7	2615.1	2631.8	2664.0	2728.5	2776.8	2780.3
165°	2563.8	2578.9	2594.1	2597.9	2609.2	2624.3	2631.8	2654.9	2701.0	2735.6	2739.4
167.5°	2605.1	2612.2	2619.3	2621.1	2630.7	2643.4	2649.7	2664.8	2695.0	2717.7	2719.3
170°	2631.8	2639.0	2646.2	2648.0	2648.6	2649.3	2649.7	2664.8	2695.0	2717.7	2717.7
172.5°	2646.2	2647.7	2649.3	2649.7	2649.7	2649.7	2649.7	2661.7	2685.6	2703.4	2702.0
175°	2665.9	2665.9	2665.9	2665.9	2660.5	2653.3	2649.7	2657.3	2672.4	2683.7	2683.7
177.5°	2665.9	2665.9	2665.9	2665.9	2661.7	2656.1	2653.3	2659.3	2671.2	2680.1	2678.5
180°	2665.9	2665.9	2665.9	2665.9	2665.9	2665.9	2665.9	2665.9	2665.9	2665.9	2665.9



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	598.4	598.4
2.5°	638.7	634.9
5°	821.6	825.4
7.5°	1106.3	1104.4
10°	1375.7	1393.0
12.5°	1571.9	1575.7
15°	1691.2	1698.9
17.5°	1737.4	1739.3
20°	1739.3	1735.5
22.5°	1718.1	1714.3
25°	1693.1	1691.2
27.5°	1670.0	1672.0
30°	1660.4	1666.2
32.5°	1660.4	1670.0
35°	1664.3	1673.9
37.5°	1662.3	1673.9
40°	1654.6	1668.1
42.5°	1633.5	1643.1
45°	1600.8	1612.3
47.5°	1558.4	1566.1
50°	1504.6	1512.2
52.5°	1437.3	1439.2
55°	1356.5	1364.1
57.5°	1269.8	1271.7
60°	1173.6	1179.4
62.5°	1071.7	1071.7
65°	963.9	967.8
67.5°	852.4	861.9
70°	738.9	740.8
72.5°	627.3	627.3
75°	511.8	513.7
77.5°	402.1	402.1
80°	298.2	300.1
82.5°	205.9	209.7
85°	128.9	128.9
87.5°	59.7	53.8
90°	68.0	68.0
92.5°	272.3	218.3
95°	949.2	785.4
97.5°	2274.4	1962.7
100°	3277.0	2905.6
102.5°	4263.2	3945.1
105°	5520.6	5349.6
107.5°	6344.1	6385.5
110°	6658.3	6836.4



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	6686.3	6959.8
115°	6508.9	6888.2
117.5°	6133.0	6553.7
120°	5830.0	6238.8
122.5°	5535.1	5938.2
125°	5114.2	5485.6
127.5°	4735.7	5049.0
130°	4512.7	4802.1
132.5°	4310.2	4569.5
135°	4032.9	4256.4
137.5°	3810.5	3993.3
140°	3657.8	3828.8
142.5°	3531.4	3678.5
145°	3341.8	3453.1
147.5°	3196.3	3288.4
150°	3104.6	3179.3
152.5°	3026.3	3082.7
155°	2936.2	2973.6
157.5°	2865.0	2891.2
160°	2822.5	2837.6
162.5°	2794.7	2809.0
165°	2754.5	2769.6
167.5°	2725.6	2732.0
170°	2717.7	2717.7
172.5°	2696.5	2690.9
175°	2683.7	2683.7
177.5°	2672.2	2665.9
180°	2665.9	2665.9



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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	0.00	0.24	0.74	1.39	3.02	12.77	13.43	13.93	14.58	16.21
	3H	0.26	0.86	1.44	2.02	3.66	14.60	15.19	15.77	16.35	18.00
	4H	0.55	1.12	1.73	2.28	3.93	15.23	15.80	16.42	16.96	18.61
	6H	0.79	1.31	1.98	2.48	4.14	15.66	16.18	16.85	17.34	19.00
	8H	0.85	1.35	2.04	2.53	4.18	15.78	16.27	16.97	17.45	19.10
	12H	0.86	1.33	2.06	2.51	4.18	15.84	16.31	17.04	17.48	19.16
4H	2H	6.77	7.34	7.96	8.50	10.15	13.01	13.58	14.21	14.74	16.39
	3H	8.32	8.79	9.52	9.98	11.64	15.05	15.52	16.24	16.71	18.37
	4H	8.41	8.84	9.60	10.02	11.70	15.81	16.25	17.00	17.42	19.10
	6H	8.40	8.78	9.60	9.98	11.64	16.34	16.71	17.54	17.91	19.58
	8H	8.38	8.73	9.57	9.91	11.60	16.50	16.85	17.70	18.04	19.72
	12H	8.32	8.64	9.54	9.84	11.53	16.59	16.90	17.80	18.10	19.79
8H	4H	9.84	10.19	11.04	11.38	13.06	15.85	16.20	17.05	17.39	19.07
	6H	10.07	10.36	11.29	11.59	13.27	16.48	16.76	17.69	17.99	19.68
	8H	10.09	10.34	11.31	11.54	13.24	16.70	16.95	17.92	18.15	19.86
	12H	10.04	10.26	11.27	11.47	13.20	16.83	17.05	18.06	18.26	19.99
12H	4H	9.97	10.29	11.19	11.49	13.18	15.79	16.11	17.01	17.31	19.00
	6H	10.33	10.58	11.55	11.79	13.49	16.46	16.71	17.68	17.91	19.62
	8H	10.39	10.61	11.61	11.81	13.54	16.68	16.90	17.91	18.10	19.84