

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: P938273

Luminaire Tested: SQ4-FB-150U-050D-940-1D-UNV-STD-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938273
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-940-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

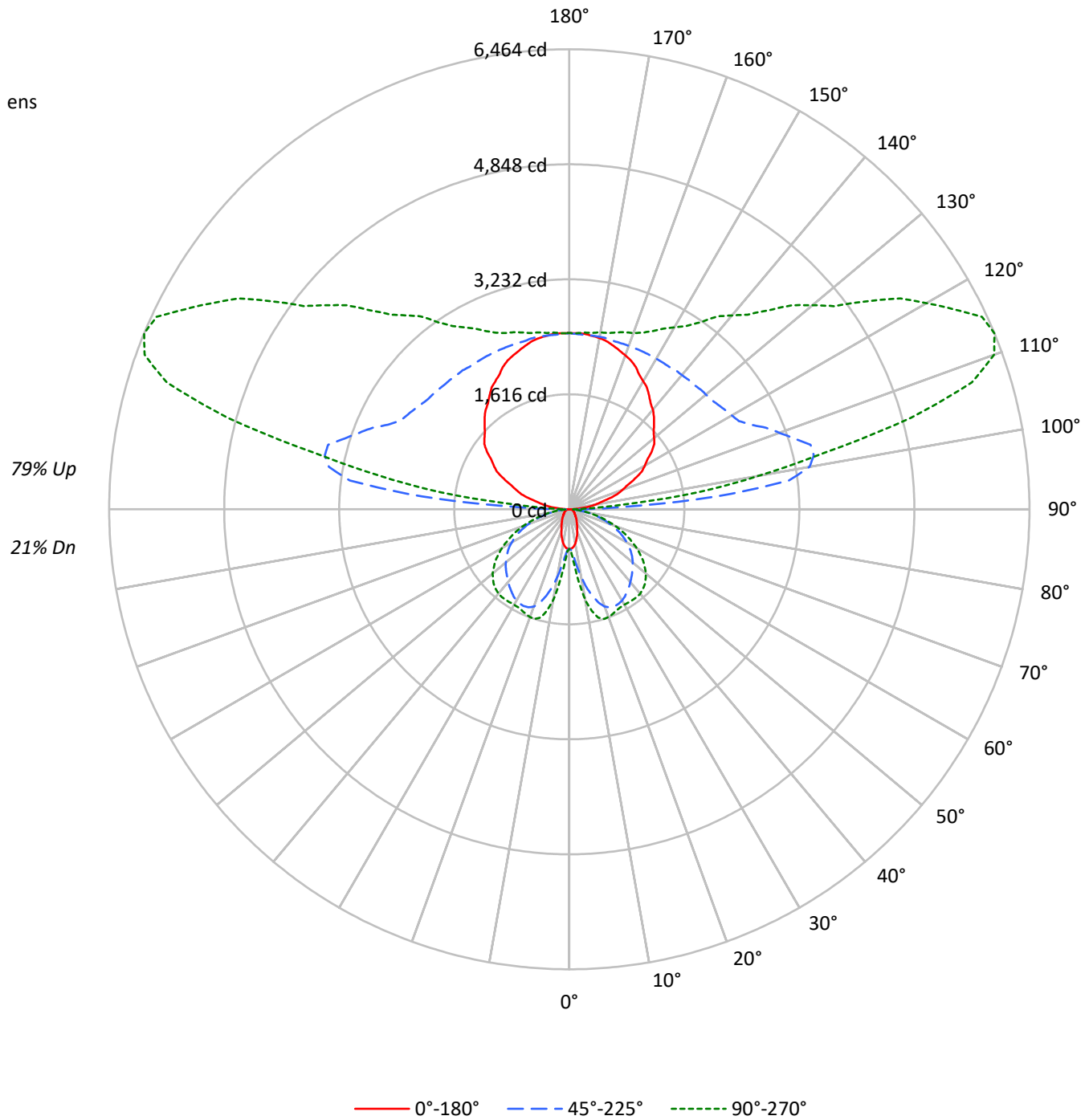
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20357.4 lumens
Efficiency: N/A
Efficacy: 122.0 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

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1719	1719	1719
5°	1680	1987	2310
10°	1524	2897	3830
15°	1296	3786	4625
20°	1055	4389	4713
25°	881	4594	4618
30°	743	4624	4609
35°	657	4548	4728
40°	573	4450	4851
45°	519	4378	4870
50°	477	4314	4790
55°	457	4219	4577
60°	468	4035	4242
65°	488	3756	3781
70°	522	3278	3195
75°	580	2675	2493
80°	640	1857	1680
85°	577	987	860

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 90°
 Luminance: 6161 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.9	0.4
10°-20°	318.6	1.6
20°-30°	557.2	2.7
30°-40°	717.3	3.5
40°-50°	801.2	3.9
50°-60°	767.4	3.8
60°-70°	608.2	3.0
70°-80°	357.6	1.8
80°-90°	108.8	0.5
90°-100°	1206.8	5.9
100°-110°	3172.7	15.6
110°-120°	3289.8	16.2
120°-130°	2638.8	13.0
130°-140°	2070.5	10.2
140°-150°	1589.2	7.8
150°-160°	1144.5	5.6
160°-170°	700.3	3.4
170°-180°	236.6	1.2
0°-30°	947.7	4.7
0°-40°	1665.0	8.2
0°-60°	3233.7	15.9
0°-90°	4308.3	21.2
90°-120°	7669.3	37.7
90°-150°	13967.8	68.6
90°-180°	16049.0	78.8
0°-180°	20357.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	556	556	556	556	556	
5°	541	581	654	740	766	50
15°	406	749	1262	1530	1578	113
25°	259	849	1503	1569	1571	119
35°	175	811	1415	1496	1554	109
45°	120	647	1251	1433	1497	93
55°	86	411	1061	1233	1267	78
65°	68	218	788	886	899	67
75°	50	134	432	475	477	52
85°	18	41	107	118	120	19
90°	17	46	126	63	63	15
95°	160	625	2079	1072	729	177
105°	572	866	3508	5325	4968	606
115°	1015	1233	2810	5604	6397	1003
125°	1412	1584	2556	4318	5094	1254
135°	1683	1853	2476	3486	3953	1302
145°	1952	2077	2444	2974	3207	1223
155°	2207	2268	2444	2683	2762	1014
165°	2381	2413	2444	2540	2572	672
175°	2476	2476	2461	2492	2492	235
180°	2476	2476	2476	2476	2476	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	555.7	555.7	555.7	555.7	555.7	555.7	555.7	555.7	555.7	555.7	555.7
2.5°	555.7	555.7	559.3	561.0	564.6	566.4	570.0	573.6	584.3	586.1	589.6
5°	541.4	548.5	571.8	580.7	605.7	639.6	653.9	677.2	725.4	739.7	748.7
7.5°	519.9	536.0	593.2	607.5	670.1	759.4	796.9	847.0	923.8	961.3	991.6
10°	486.0	519.9	621.8	655.8	757.6	893.4	963.0	1032.7	1148.9	1200.8	1220.4
12.5°	448.4	503.9	652.1	698.6	845.1	1043.5	1127.5	1204.3	1336.5	1406.2	1416.9
15°	405.6	480.7	680.7	748.7	938.1	1168.5	1261.5	1356.2	1479.5	1529.5	1542.0
17.5°	368.1	462.7	707.6	779.0	1009.6	1281.1	1375.8	1454.5	1554.5	1588.5	1597.4
20°	321.6	434.2	725.4	818.4	1084.6	1363.3	1454.5	1515.2	1583.1	1604.5	1608.1
22.5°	287.7	403.8	736.2	832.7	1134.6	1413.3	1490.2	1538.5	1584.9	1592.0	1593.8
25°	259.1	369.9	734.4	848.8	1177.5	1443.7	1502.7	1538.5	1565.2	1568.8	1568.8
27.5°	232.3	332.4	727.2	852.3	1209.6	1450.9	1497.3	1522.3	1534.8	1542.0	1542.0
30°	209.0	296.6	709.3	845.1	1223.9	1443.7	1481.3	1493.8	1506.2	1517.0	1522.3
32.5°	191.2	262.7	682.5	830.8	1225.7	1425.9	1452.7	1459.8	1477.6	1502.7	1511.6
35°	175.1	228.7	652.1	811.2	1215.1	1397.3	1415.1	1422.3	1458.0	1495.6	1508.0
37.5°	159.0	203.7	612.9	777.3	1198.9	1363.3	1375.8	1388.3	1443.7	1488.4	1502.7
40°	143.0	182.2	566.4	739.7	1173.9	1322.2	1333.0	1352.6	1425.9	1477.6	1491.9
42.5°	130.4	164.4	516.4	700.5	1141.8	1275.8	1291.9	1320.5	1404.4	1459.8	1475.9
45°	119.7	146.5	462.7	646.8	1100.7	1227.5	1250.7	1290.1	1379.4	1433.0	1447.3
47.5°	109.0	134.0	407.4	591.4	1056.0	1179.3	1209.6	1254.3	1345.4	1397.3	1409.8
50°	100.1	121.5	352.0	532.4	1007.7	1127.5	1163.2	1209.6	1302.6	1350.8	1366.9
52.5°	92.9	110.8	300.1	473.5	952.4	1073.9	1115.0	1163.2	1250.7	1297.2	1307.9
55°	85.8	101.9	255.5	411.0	895.2	1016.7	1061.3	1107.8	1193.6	1232.9	1240.0
57.5°	82.2	94.7	218.0	352.0	834.5	952.4	1002.4	1045.3	1125.6	1156.1	1163.2
60°	76.8	89.3	189.4	302.0	768.3	891.6	934.5	977.3	1045.3	1070.3	1075.6
62.5°	71.5	85.8	167.9	253.7	700.5	820.2	863.0	902.3	959.5	977.3	984.5
65°	67.9	82.2	151.8	218.0	630.7	745.1	788.0	821.9	868.4	886.2	889.8
67.5°	64.3	78.6	139.3	187.6	561.0	670.1	702.2	734.4	770.1	788.0	789.8
70°	59.0	75.0	128.7	166.1	489.6	584.3	611.1	645.0	673.6	682.5	687.9
72.5°	55.4	69.7	121.5	150.1	416.3	502.1	527.1	546.7	571.8	580.7	580.7
75°	50.0	62.5	114.4	134.0	341.3	411.0	432.4	452.1	471.7	475.3	469.9
77.5°	44.7	55.4	98.3	112.6	266.2	325.2	343.0	353.8	369.9	373.4	375.2
80°	37.6	48.2	76.8	87.6	193.0	239.4	251.9	260.9	275.2	275.2	278.7
82.5°	28.6	37.6	55.4	62.5	130.4	164.4	175.1	180.4	189.4	189.4	189.4
85°	17.8	23.3	35.7	41.1	78.6	100.1	107.2	109.0	116.2	117.9	117.9
87.5°	9.0	12.5	23.3	25.0	41.1	51.9	51.9	55.4	55.4	53.6	51.9
90°	16.6	29.9	43.2	46.5	73.1	108.5	126.3	112.2	84.2	63.1	63.1
92.5°	66.4	179.4	292.4	320.7	450.8	624.4	711.1	623.2	447.5	315.7	303.2
95°	159.5	366.2	573.0	624.7	1109.4	1755.6	2078.6	1854.9	1407.4	1071.7	1033.7
97.5°	275.8	458.2	640.6	686.2	1494.3	2571.7	3110.4	2969.0	2686.2	2474.1	2401.7
100°	365.5	530.9	696.4	737.8	1634.5	2830.0	3427.8	3438.1	3458.8	3474.3	3388.1
102.5°	442.0	596.3	750.6	789.3	1698.7	2911.2	3517.5	3697.7	4058.1	4328.4	4254.5
105°	571.6	702.3	833.0	865.7	1746.3	2920.5	3507.5	3911.5	4719.4	5325.2	5285.6
107.5°	704.5	826.4	948.2	978.7	1755.1	2790.5	3308.2	3871.6	4998.5	5843.7	5853.3
110°	794.2	904.3	1014.3	1041.8	1741.9	2675.3	3142.0	3772.0	5031.8	5976.6	6018.0



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	882.3	987.2	1092.1	1118.3	1742.4	2574.7	2990.8	3635.5	4924.8	5891.9	5955.4
115°	1015.3	1112.0	1208.7	1232.9	1758.5	2459.3	2809.7	3430.8	4672.8	5604.4	5692.5
117.5°	1146.5	1234.3	1322.2	1344.2	1791.1	2387.0	2685.0	3245.6	4366.6	5207.3	5305.0
120°	1222.9	1305.6	1388.3	1409.0	1817.7	2362.7	2635.2	3147.3	4171.6	4939.8	5034.7
122.5°	1297.6	1381.1	1464.6	1485.4	1856.0	2350.0	2597.0	3058.2	3980.5	4672.3	4765.9
125°	1412.4	1488.4	1564.5	1583.5	1907.5	2339.5	2555.5	2947.3	3730.8	4318.3	4404.6
127.5°	1505.3	1582.1	1659.0	1678.1	1958.9	2333.4	2520.6	2857.0	3529.7	4034.3	4107.0
130°	1555.2	1637.9	1720.6	1741.3	1996.6	2337.0	2507.3	2806.7	3405.7	3854.8	3922.0
132.5°	1606.7	1689.4	1772.1	1792.8	2027.0	2339.4	2495.6	2763.7	3299.9	3702.0	3762.2
135°	1683.1	1758.4	1833.8	1852.6	2060.3	2337.3	2475.7	2700.2	3149.2	3485.9	3537.8
137.5°	1761.3	1835.9	1910.4	1929.1	2110.2	2351.6	2472.4	2662.1	3041.8	3326.4	3368.9
140°	1826.1	1894.7	1963.5	1980.6	2140.6	2354.0	2460.7	2624.7	2952.6	3198.5	3238.2
142.5°	1875.9	1939.4	2002.9	2018.8	2166.1	2362.5	2460.7	2604.8	2892.7	3108.8	3143.0
145°	1952.4	2007.8	2063.1	2076.9	2199.3	2362.5	2444.1	2561.9	2797.5	2974.2	3000.0
147.5°	2028.7	2082.6	2136.5	2150.0	2248.1	2378.8	2444.1	2536.8	2722.2	2861.2	2882.6
150°	2078.6	2127.4	2176.1	2188.3	2273.5	2387.3	2444.1	2522.5	2679.0	2796.4	2813.7
152.5°	2130.1	2167.1	2203.9	2213.2	2290.2	2392.8	2444.1	2511.0	2644.6	2744.9	2758.0
155°	2206.6	2233.9	2261.2	2268.0	2326.7	2405.0	2444.1	2497.3	2603.7	2683.4	2692.1
157.5°	2263.1	2289.6	2316.2	2322.8	2363.2	2417.1	2444.1	2485.5	2568.2	2630.3	2636.4
160°	2301.3	2321.9	2342.6	2347.8	2379.9	2422.7	2444.1	2479.6	2550.4	2603.6	2607.2
162.5°	2339.4	2355.0	2370.4	2374.3	2397.6	2428.6	2444.1	2474.1	2533.9	2578.8	2582.0
165°	2381.0	2395.0	2409.1	2412.6	2423.1	2437.1	2444.1	2465.5	2508.3	2540.5	2544.0
167.5°	2419.3	2425.9	2432.5	2434.2	2443.1	2454.9	2460.7	2474.8	2502.8	2523.9	2525.4
170°	2444.1	2450.8	2457.5	2459.1	2459.7	2460.4	2460.7	2474.8	2502.8	2523.9	2523.9
172.5°	2457.5	2458.9	2460.4	2460.7	2460.7	2460.7	2460.7	2471.8	2494.0	2510.6	2509.3
175°	2475.7	2475.7	2475.7	2475.7	2470.8	2464.1	2460.7	2467.8	2481.8	2492.3	2492.3
177.5°	2475.7	2475.7	2475.7	2475.7	2471.8	2466.7	2464.1	2469.6	2480.7	2489.0	2487.5
180°	2475.7	2475.7	2475.7	2475.7	2475.7	2475.7	2475.7	2475.7	2475.7	2475.7	2475.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	555.7	555.7
2.5°	593.2	589.6
5°	763.0	766.5
7.5°	1027.4	1025.6
10°	1277.6	1293.6
12.5°	1459.8	1463.3
15°	1570.6	1577.7
17.5°	1613.5	1615.3
20°	1615.3	1611.7
22.5°	1595.6	1592.0
25°	1572.4	1570.6
27.5°	1550.9	1552.8
30°	1542.0	1547.3
32.5°	1542.0	1550.9
35°	1545.6	1554.5
37.5°	1543.8	1554.5
40°	1536.6	1549.1
42.5°	1517.0	1525.9
45°	1486.6	1497.3
47.5°	1447.3	1454.5
50°	1397.3	1404.4
52.5°	1334.8	1336.5
55°	1259.7	1266.8
57.5°	1179.3	1181.0
60°	1089.9	1095.3
62.5°	995.3	995.3
65°	895.2	898.7
67.5°	791.6	800.4
70°	686.2	687.9
72.5°	582.5	582.5
75°	475.3	477.0
77.5°	373.4	373.4
80°	277.0	278.7
82.5°	191.2	194.7
85°	119.7	119.7
87.5°	55.4	50.0
90°	63.1	63.1
92.5°	252.9	202.7
95°	881.5	729.4
97.5°	2112.2	1822.7
100°	3043.3	2698.4
102.5°	3959.1	3663.7
105°	5126.9	4968.1
107.5°	5891.7	5930.1
110°	6183.4	6348.8



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	6209.4	6463.5
115°	6044.7	6397.0
117.5°	5695.6	6086.3
120°	5414.2	5793.8
122.5°	5140.4	5514.7
125°	4749.5	5094.4
127.5°	4398.0	4688.9
130°	4190.8	4459.6
132.5°	4002.8	4243.6
135°	3745.3	3952.8
137.5°	3538.8	3708.6
140°	3397.0	3555.7
142.5°	3279.6	3416.1
145°	3103.5	3206.8
147.5°	2968.3	3053.9
150°	2883.2	2952.6
152.5°	2810.4	2862.8
155°	2726.8	2761.5
157.5°	2660.7	2685.0
160°	2621.2	2635.2
162.5°	2595.4	2608.7
165°	2558.1	2572.1
167.5°	2531.2	2537.2
170°	2523.9	2523.9
172.5°	2504.2	2499.0
175°	2492.3	2492.3
177.5°	2481.6	2475.7
180°	2475.7	2475.7



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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	0.00	0.48	1.14	2.77	12.51	13.17	13.68	14.33	15.96
	3H	0.01	0.60	1.18	1.76	3.41	14.34	14.93	15.51	16.10	17.74
	4H	0.29	0.86	1.48	2.02	3.67	14.98	15.54	16.16	16.71	18.35
	6H	0.53	1.06	1.72	2.22	3.88	15.40	15.92	16.59	17.09	18.75
	8H	0.60	1.09	1.79	2.27	3.92	15.52	16.02	16.71	17.19	18.84
	12H	0.61	1.08	1.80	2.25	3.92	15.58	16.05	16.78	17.23	18.90
4H	2H	6.52	7.08	7.71	8.24	9.89	12.76	13.32	13.95	14.49	16.13
	3H	8.06	8.54	9.26	9.72	11.38	14.79	15.26	15.98	16.45	18.11
	4H	8.15	8.59	9.35	9.76	11.44	15.55	15.99	16.75	17.16	18.84
	6H	8.15	8.52	9.35	9.72	11.39	16.08	16.46	17.28	17.65	19.32
	8H	8.12	8.47	9.32	9.66	11.34	16.24	16.59	17.44	17.78	19.46
	12H	8.07	8.38	9.28	9.58	11.27	16.33	16.65	17.54	17.84	19.53
8H	4H	9.58	9.93	10.78	11.12	12.80	15.59	15.94	16.79	17.13	18.82
	6H	9.81	10.10	11.03	11.33	13.01	16.22	16.51	17.44	17.74	19.42
	8H	9.83	10.08	11.05	11.29	12.99	16.44	16.69	17.66	17.90	19.60
	12H	9.79	10.01	11.01	11.21	12.94	16.58	16.80	17.80	18.00	19.73
12H	4H	9.71	10.03	10.93	11.23	12.92	15.54	15.85	16.75	17.05	18.74
	6H	10.07	10.32	11.29	11.53	13.23	16.20	16.45	17.42	17.66	19.36
	8H	10.13	10.35	11.36	11.56	13.29	16.42	16.64	17.65	17.85	19.58