

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: P938354

Luminaire Tested: SQ4-FB-150U-075D-93050-1D-UNV-STD-W-12-3500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938354
REPORT IS A COMBINATION OF REPORTS P933622 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-12-3500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

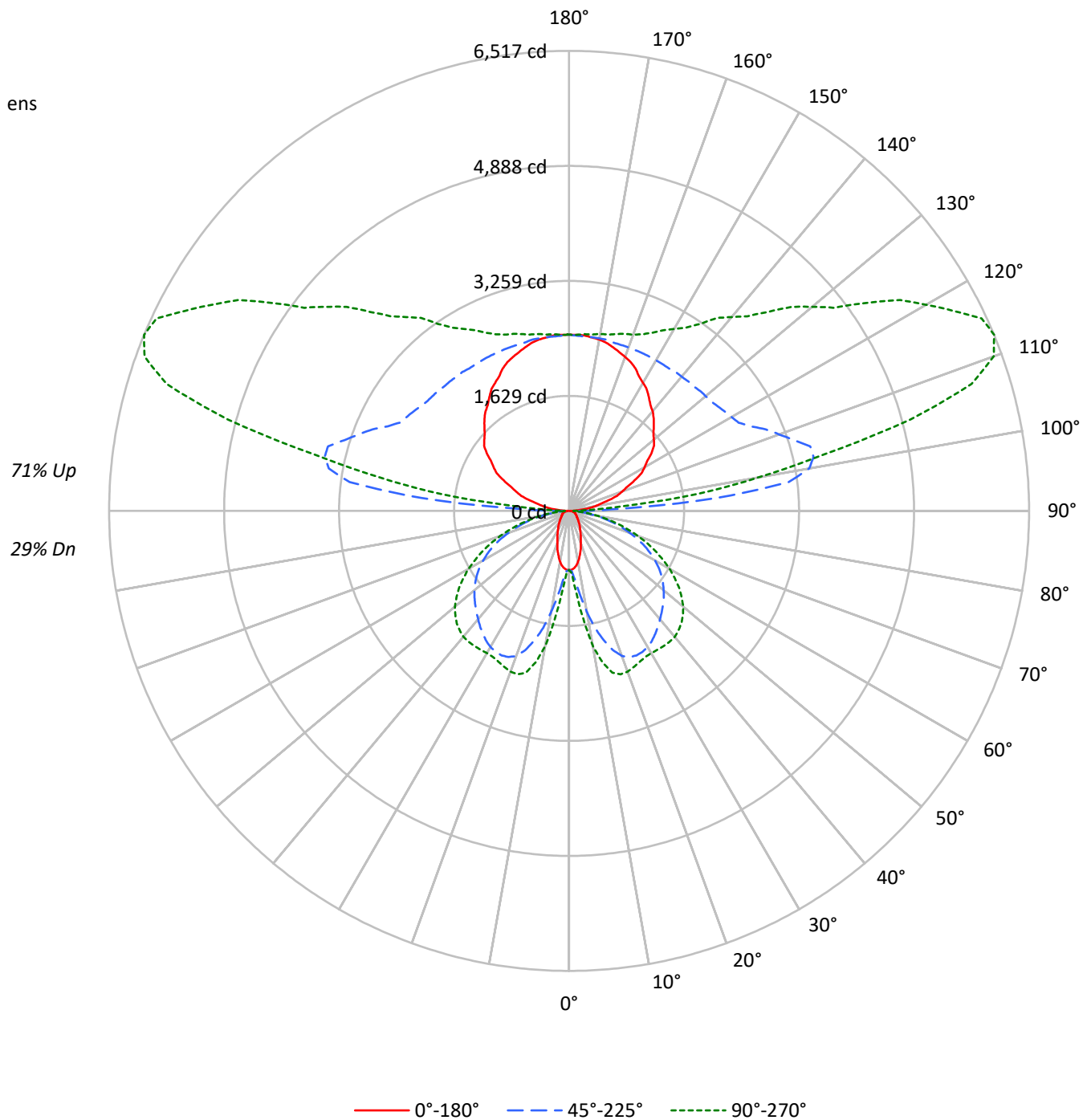
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22653.1 lumens
Efficiency: N/A
Efficacy: 118.7 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): 190.8
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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CATALOG NUMBER: SQ4-FB-150U-075D-93050-1D-UNV-STD-W-12-3500K

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2584	2584	2584
5°	2525	2987	3473
10°	2291	4355	5758
15°	1948	5692	6953
20°	1587	6597	7086
25°	1324	6905	6942
30°	1117	6951	6928
35°	988	6837	7108
40°	862	6689	7293
45°	781	6581	7321
50°	717	6484	7200
55°	687	6342	6881
60°	704	6066	6377
65°	734	5646	5685
70°	783	4927	4803
75°	872	4021	3747
80°	959	2792	2525
85°	872	1484	1293

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7321 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.1	0.5
10°-20°	478.9	2.1
20°-30°	837.7	3.7
30°-40°	1078.4	4.8
40°-50°	1204.5	5.3
50°-60°	1153.6	5.1
60°-70°	914.3	4.0
70°-80°	537.6	2.4
80°-90°	158.9	0.7
90°-100°	1216.7	5.4
100°-110°	3198.8	14.1
110°-120°	3316.9	14.6
120°-130°	2660.5	11.7
130°-140°	2087.6	9.2
140°-150°	1602.3	7.1
150°-160°	1153.9	5.1
160°-170°	706.0	3.1
170°-180°	238.5	1.1
<hr/>		
0°-30°	1424.7	6.3
0°-40°	2503.0	11.0
0°-60°	4861.1	21.5
0°-90°	6471.9	28.6
90°-120°	7732.4	34.1
90°-150°	14082.8	62.2
90°-180°	16181.0	71.4
0°-180°	22653.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	835	835	835	835	835	
5°	814	873	983	1112	1152	75
15°	610	1126	1896	2299	2372	170
25°	390	1276	2259	2358	2361	179
35°	263	1220	2127	2248	2337	164
45°	180	972	1880	2154	2251	139
55°	129	618	1596	1853	1904	117
65°	102	328	1185	1332	1351	101
75°	75	201	650	714	717	79
85°	27	62	161	177	180	29
90°	17	47	127	64	64	16
95°	161	630	2096	1081	735	179
105°	576	873	3536	5369	5009	611
115°	1024	1243	2833	5651	6450	1011
125°	1424	1596	2576	4354	5136	1264
135°	1697	1868	2496	3515	3985	1313
145°	1968	2094	2464	2999	3233	1233
155°	2225	2287	2464	2706	2784	1022
165°	2401	2432	2464	2561	2593	677
175°	2496	2496	2481	2513	2513	237
180°	2496	2496	2496	2496	2496	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	835.3	835.3	835.3	835.3	835.3	835.3	835.3	835.3	835.3	835.3	835.3
2.5°	835.3	835.3	840.7	843.4	848.8	851.4	856.8	862.2	878.3	881.0	886.4
5°	813.8	824.6	859.5	872.9	910.5	961.6	983.1	1018.1	1090.6	1112.1	1125.5
7.5°	781.6	805.8	891.7	913.2	1007.2	1141.6	1198.0	1273.2	1388.7	1445.1	1490.8
10°	730.6	781.6	934.7	985.7	1138.9	1343.1	1447.8	1552.6	1727.1	1805.0	1834.6
12.5°	674.2	757.4	980.4	1050.3	1270.5	1568.7	1694.9	1810.4	2009.2	2113.9	2130.0
15°	609.7	722.5	1023.4	1125.5	1410.2	1756.7	1896.4	2038.7	2224.0	2299.3	2318.1
17.5°	553.3	695.7	1063.7	1171.2	1517.6	1925.9	2068.3	2186.4	2336.9	2387.9	2401.3
20°	483.5	652.7	1090.6	1230.2	1630.5	2049.5	2186.4	2277.8	2379.8	2412.1	2417.4
22.5°	432.4	607.0	1106.7	1251.7	1705.7	2124.7	2240.2	2312.7	2382.5	2393.3	2395.9
25°	389.5	556.0	1104.0	1275.9	1770.1	2170.3	2259.0	2312.7	2353.0	2358.3	2358.3
27.5°	349.2	499.6	1093.3	1281.3	1818.5	2181.1	2250.9	2288.5	2307.3	2318.1	2318.1
30°	314.3	445.9	1066.4	1270.5	1840.0	2170.3	2226.7	2245.5	2264.3	2280.4	2288.5
32.5°	287.4	394.8	1026.1	1249.0	1842.6	2143.5	2183.8	2194.5	2221.4	2259.0	2272.4
35°	263.2	343.8	980.4	1219.5	1826.5	2100.5	2127.4	2138.1	2191.8	2248.2	2267.0
37.5°	239.0	306.2	921.3	1168.5	1802.4	2049.5	2068.3	2087.1	2170.3	2237.5	2259.0
40°	214.9	274.0	851.4	1112.1	1764.7	1987.7	2003.8	2033.3	2143.5	2221.4	2242.8
42.5°	196.1	247.1	776.2	1053.0	1716.4	1917.8	1942.0	1985.0	2111.2	2194.5	2218.7
45°	180.0	220.2	695.7	972.3	1654.6	1845.3	1880.2	1939.3	2073.6	2154.2	2175.7
47.5°	163.8	201.4	612.4	889.0	1587.5	1772.8	1818.5	1885.6	2022.6	2100.5	2119.3
50°	150.4	182.6	529.1	800.4	1515.0	1694.9	1748.6	1818.5	1958.1	2030.7	2054.8
52.5°	139.7	166.5	451.2	711.8	1431.7	1614.3	1676.1	1748.6	1880.2	1950.1	1966.2
55°	128.9	153.1	384.1	617.8	1345.7	1528.4	1595.5	1665.4	1794.3	1853.4	1864.1
57.5°	123.6	142.4	327.7	529.1	1254.4	1431.7	1506.9	1571.4	1692.2	1737.9	1748.6
60°	115.5	134.3	284.7	453.9	1155.0	1340.4	1404.8	1469.3	1571.4	1609.0	1617.0
62.5°	107.4	128.9	252.5	381.4	1053.0	1232.9	1297.4	1356.5	1442.4	1469.3	1480.0
65°	102.1	123.6	228.3	327.7	948.1	1120.1	1184.6	1235.6	1305.5	1332.3	1337.7
67.5°	96.7	118.2	209.5	282.0	843.4	1007.2	1055.7	1104.0	1157.7	1184.6	1187.3
70°	88.6	112.8	193.4	249.8	735.9	878.3	918.6	969.6	1012.6	1026.1	1034.2
72.5°	83.3	104.8	182.6	225.6	625.8	754.7	792.4	821.9	859.5	872.9	872.9
75°	75.2	94.0	171.9	201.4	513.0	617.8	650.0	679.5	709.1	714.5	706.4
77.5°	67.1	83.3	147.7	169.2	400.2	488.8	515.7	531.8	556.0	561.4	564.0
80°	56.4	72.5	115.5	131.6	290.1	359.9	378.7	392.1	413.6	413.6	419.0
82.5°	43.0	56.4	83.3	94.0	196.1	247.1	263.2	271.3	284.7	284.7	284.7
85°	26.9	34.9	53.7	61.8	118.2	150.4	161.2	163.8	174.6	177.3	177.3
87.5°	13.4	18.8	34.9	37.6	61.8	77.9	77.9	83.3	83.3	80.6	77.9
90°	16.7	30.2	43.6	46.9	73.7	109.4	127.3	113.2	84.9	63.7	63.7
92.5°	67.0	180.9	294.8	323.3	454.5	629.5	717.0	628.3	451.1	318.3	305.7
95°	160.8	369.2	577.7	629.9	1118.5	1770.0	2095.7	1870.1	1419.0	1080.6	1042.2
97.5°	278.1	462.0	645.9	691.9	1506.6	2592.9	3136.0	2993.5	2708.3	2494.4	2421.5
100°	368.5	535.3	702.1	743.8	1647.9	2853.3	3456.0	3466.4	3487.2	3502.9	3416.0
102.5°	445.6	601.2	756.8	795.8	1712.6	2935.2	3546.5	3728.2	4091.5	4364.0	4289.5
105°	576.3	708.1	839.9	872.8	1760.7	2944.5	3536.4	3943.7	4758.2	5369.1	5329.1
107.5°	710.3	833.2	956.0	986.7	1769.6	2813.4	3335.4	3903.5	5039.6	5891.8	5901.4
110°	800.8	911.7	1022.6	1050.4	1756.2	2697.3	3167.9	3803.0	5073.2	6025.8	6067.5



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	889.6	995.3	1101.1	1127.5	1756.8	2595.9	3015.4	3665.4	4965.4	5940.4	6004.4
115°	1023.6	1121.1	1218.7	1243.1	1773.0	2479.6	2832.9	3459.0	4711.3	5650.6	5739.4
117.5°	1155.9	1244.5	1333.1	1355.2	1805.8	2406.7	2707.2	3272.3	4402.5	5250.2	5348.7
120°	1232.9	1316.4	1399.7	1420.6	1832.7	2382.2	2656.9	3173.3	4205.9	4980.4	5076.2
122.5°	1308.3	1392.5	1476.6	1497.7	1871.3	2369.4	2618.4	3083.4	4013.3	4710.8	4805.1
125°	1424.0	1500.6	1577.4	1596.5	1923.2	2358.8	2576.5	2971.5	3761.5	4353.9	4440.8
127.5°	1517.7	1595.2	1672.6	1692.0	1975.1	2352.6	2541.3	2880.5	3558.8	4067.5	4140.8
130°	1568.0	1651.4	1734.8	1755.6	2013.0	2356.3	2527.9	2829.8	3433.7	3886.5	3954.3
132.5°	1620.0	1703.3	1786.7	1807.5	2043.7	2358.7	2516.2	2786.5	3327.1	3732.5	3793.2
135°	1697.0	1772.9	1848.9	1867.9	2077.3	2356.6	2496.1	2722.5	3175.1	3514.6	3566.9
137.5°	1775.8	1851.0	1926.2	1945.0	2127.5	2371.0	2492.7	2684.1	3066.8	3353.8	3396.6
140°	1841.1	1910.3	1979.6	1996.9	2158.2	2373.4	2481.0	2646.3	2976.9	3224.8	3264.8
142.5°	1891.3	1955.4	2019.4	2035.4	2183.9	2382.0	2481.0	2626.2	2916.6	3134.4	3168.9
145°	1968.4	2024.3	2080.1	2094.0	2217.4	2382.0	2464.3	2583.0	2820.5	2998.7	3024.7
147.5°	2045.4	2099.8	2154.1	2167.7	2266.6	2398.4	2464.3	2557.7	2744.6	2884.8	2906.4
150°	2095.7	2144.9	2194.1	2206.3	2292.3	2407.0	2464.3	2543.2	2701.1	2819.4	2836.9
152.5°	2147.7	2184.9	2222.1	2231.4	2309.0	2412.5	2464.3	2531.7	2666.4	2767.5	2780.7
155°	2224.8	2252.3	2279.8	2286.7	2345.9	2424.8	2464.3	2517.9	2625.1	2705.5	2714.3
157.5°	2281.7	2308.5	2335.2	2342.0	2382.7	2437.0	2464.3	2506.0	2589.3	2651.9	2658.1
160°	2320.2	2341.1	2361.9	2367.1	2399.5	2442.7	2464.3	2500.0	2571.4	2625.1	2628.6
162.5°	2358.7	2374.4	2389.9	2393.9	2417.3	2448.6	2464.3	2494.4	2554.8	2600.0	2603.3
165°	2400.6	2414.7	2428.9	2432.5	2443.0	2457.2	2464.3	2485.8	2529.0	2561.4	2565.0
167.5°	2439.2	2445.9	2452.5	2454.2	2463.2	2475.1	2481.0	2495.1	2523.4	2544.7	2546.2
170°	2464.3	2471.0	2477.7	2479.4	2479.9	2480.6	2481.0	2495.1	2523.4	2544.7	2544.7
172.5°	2477.7	2479.1	2480.6	2481.0	2481.0	2481.0	2481.0	2492.2	2514.6	2531.3	2530.0
175°	2496.1	2496.1	2496.1	2496.1	2491.1	2484.4	2481.0	2488.1	2502.2	2512.9	2512.9
177.5°	2496.1	2496.1	2496.1	2496.1	2492.2	2487.0	2484.4	2490.0	2501.1	2509.5	2507.9
180°	2496.1	2496.1	2496.1	2496.1	2496.1	2496.1	2496.1	2496.1	2496.1	2496.1	2496.1



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	835.3	835.3
2.5°	891.7	886.4
5°	1147.0	1152.4
7.5°	1544.5	1541.8
10°	1920.5	1944.7
12.5°	2194.5	2199.9
15°	2361.0	2371.8
17.5°	2425.5	2428.2
20°	2428.2	2422.8
22.5°	2398.6	2393.3
25°	2363.7	2361.0
27.5°	2331.5	2334.2
30°	2318.1	2326.1
32.5°	2318.1	2331.5
35°	2323.4	2336.9
37.5°	2320.7	2336.9
40°	2310.0	2328.8
42.5°	2280.4	2293.9
45°	2234.8	2250.9
47.5°	2175.7	2186.4
50°	2100.5	2111.2
52.5°	2006.5	2009.2
55°	1893.7	1904.4
57.5°	1772.8	1775.5
60°	1638.5	1646.6
62.5°	1496.2	1496.2
65°	1345.7	1351.1
67.5°	1190.0	1203.4
70°	1031.5	1034.2
72.5°	875.6	875.6
75°	714.5	717.1
77.5°	561.4	561.4
80°	416.3	419.0
82.5°	287.4	292.8
85°	180.0	180.0
87.5°	83.3	75.2
90°	63.7	63.7
92.5°	255.0	204.4
95°	888.8	735.4
97.5°	2129.6	1837.7
100°	3068.3	2720.6
102.5°	3991.7	3693.9
105°	5169.1	5009.0
107.5°	5940.2	5978.9
110°	6234.3	6401.1



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	6260.6	6516.7
115°	6094.5	6449.6
117.5°	5742.5	6136.4
120°	5458.8	5841.6
122.5°	5182.7	5560.2
125°	4788.6	5136.3
127.5°	4434.2	4727.5
130°	4225.3	4496.3
132.5°	4035.8	4278.5
135°	3776.2	3985.4
137.5°	3567.9	3739.1
140°	3424.9	3585.0
142.5°	3306.6	3444.3
145°	3129.0	3233.2
147.5°	2992.8	3079.1
150°	2906.9	2976.9
152.5°	2833.6	2886.4
155°	2749.2	2784.2
157.5°	2682.6	2707.2
160°	2642.8	2656.9
162.5°	2616.7	2630.2
165°	2579.1	2593.3
167.5°	2552.1	2558.1
170°	2544.7	2544.7
172.5°	2524.8	2519.6
175°	2512.9	2512.9
177.5°	2502.0	2496.1
180°	2496.1	2496.1



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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	1.92	2.64	3.04	3.75	5.29	15.11	15.83	16.23	16.94	18.49
	3H	2.61	3.26	3.74	4.38	5.94	16.94	17.59	18.07	18.71	20.27
	4H	2.90	3.51	4.04	4.64	6.20	17.59	18.20	18.72	19.32	20.89
	6H	3.15	3.71	4.29	4.83	6.41	18.01	18.58	19.16	19.70	21.28
	8H	3.21	3.75	4.36	4.89	6.46	18.13	18.67	19.28	19.81	21.38
	12H	3.22	3.73	4.37	4.87	6.46	18.20	18.71	19.35	19.84	21.44
4H	2H	9.12	9.74	10.27	10.86	12.42	15.37	15.98	16.51	17.10	18.67
	3H	10.68	11.19	11.83	12.34	13.92	17.40	17.91	18.55	19.06	20.64
	4H	10.77	11.24	11.92	12.37	13.97	18.17	18.64	19.32	19.77	21.37
	6H	10.77	11.17	11.92	12.33	13.92	18.70	19.11	19.86	20.27	21.86
	8H	10.74	11.12	11.90	12.27	13.88	18.86	19.24	20.02	20.39	22.00
	12H	10.69	11.03	11.86	12.19	13.81	18.95	19.29	20.13	20.46	22.07
8H	4H	12.20	12.58	13.36	13.73	15.34	18.21	18.59	19.37	19.74	21.35
	6H	12.44	12.75	13.61	13.94	15.54	18.84	19.15	20.02	20.35	21.95
	8H	12.45	12.72	13.63	13.90	15.52	19.06	19.33	20.24	20.51	22.13
	12H	12.41	12.65	13.60	13.82	15.48	19.20	19.44	20.39	20.61	22.27
12H	4H	12.34	12.68	13.51	13.84	15.45	18.16	18.50	19.33	19.67	21.28
	6H	12.69	12.97	13.88	14.14	15.76	18.82	19.09	20.01	20.27	21.89
	8H	12.76	12.99	13.94	14.17	15.82	19.05	19.29	20.23	20.46	22.11