

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: P938329

Luminaire Tested: SQ4-FB-150U-075D-92765-1D-UNV-STD-W-12-5000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938329
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-92765-1D-UNV-STD-W-12-5000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

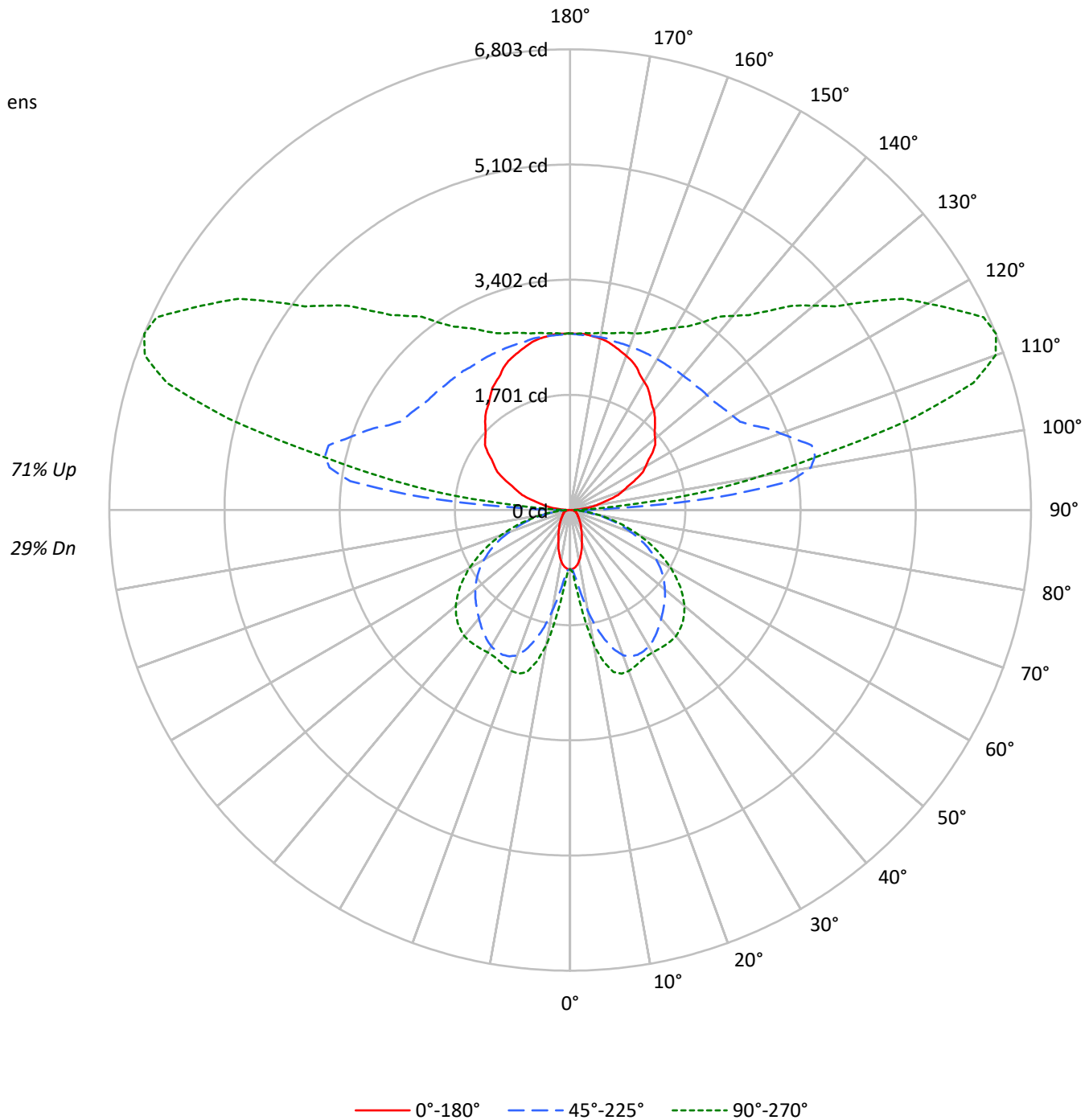
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23649.9 lumens
Efficiency: N/A
Efficacy: 124.0 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): 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

TEST NUMBER: P938329
CATALOG NUMBER: SQ4-FB-150U-075D-92765-1D-UNV-STD-W-12-5000K

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2697	2697	2697
5°	2636	3118	3626
10°	2392	4547	6011
15°	2034	5942	7258
20°	1656	6887	7397
25°	1382	7209	7247
30°	1166	7257	7233
35°	1032	7138	7421
40°	899	6984	7614
45°	815	6871	7643
50°	748	6770	7517
55°	717	6621	7184
60°	735	6333	6658
65°	766	5895	5935
70°	818	5144	5014
75°	910	4198	3912
80°	1002	2915	2636
85°	907	1549	1349

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7643 cd/sqm



TEST NUMBER: P938329

CATALOG NUMBER: SQ4-FB-150U-075D-92765-1D-UNV-STD-W-12-5000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.8	0.5
10°-20°	500.0	2.1
20°-30°	874.6	3.7
30°-40°	1125.8	4.8
40°-50°	1257.5	5.3
50°-60°	1204.4	5.1
60°-70°	954.5	4.0
70°-80°	561.2	2.4
80°-90°	165.9	0.7
90°-100°	1270.3	5.4
100°-110°	3339.6	14.1
110°-120°	3462.8	14.6
120°-130°	2777.6	11.7
130°-140°	2179.4	9.2
140°-150°	1672.8	7.1
150°-160°	1204.7	5.1
160°-170°	737.1	3.1
170°-180°	249.0	1.1
0°-30°	1487.4	6.3
0°-40°	2613.2	11.0
0°-60°	5075.0	21.5
0°-90°	6756.6	28.6
90°-120°	8072.7	34.1
90°-150°	14702.4	62.2
90°-180°	16893.0	71.4
0°-180°	23649.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	872	872	872	872	872	
5°	850	911	1026	1161	1203	78
15°	636	1175	1980	2400	2476	177
25°	407	1332	2358	2462	2465	187
35°	275	1273	2221	2347	2440	172
45°	188	1015	1963	2249	2350	145
55°	135	645	1666	1935	1988	123
65°	107	342	1237	1391	1411	106
75°	78	210	679	746	749	82
85°	28	64	168	185	188	30
90°	18	49	133	66	66	16
95°	168	658	2188	1128	768	186
105°	602	911	3692	5605	5229	638
115°	1069	1298	2958	5899	6733	1055
125°	1487	1667	2690	4546	5362	1320
135°	1772	1950	2606	3669	4161	1371
145°	2055	2186	2573	3131	3376	1287
155°	2323	2387	2573	2825	2907	1067
165°	2506	2540	2573	2674	2707	707
175°	2606	2606	2590	2623	2623	247
180°	2606	2606	2606	2606	2606	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	872.1	872.1	872.1	872.1	872.1	872.1	872.1	872.1	872.1	872.1	872.1
2.5°	872.1	872.1	877.7	880.5	886.1	888.9	894.5	900.1	916.9	919.8	925.4
5°	849.6	860.9	897.3	911.3	950.6	1003.9	1026.3	1062.9	1138.6	1161.0	1175.0
7.5°	816.0	841.2	931.0	953.4	1051.5	1191.8	1250.7	1329.2	1449.8	1508.7	1556.4
10°	762.7	816.0	975.8	1029.1	1189.0	1402.2	1511.5	1620.9	1803.1	1884.5	1915.3
12.5°	703.8	790.8	1023.5	1096.5	1326.4	1637.7	1769.5	1890.1	2097.6	2206.9	2223.8
15°	636.5	754.3	1068.5	1175.0	1472.3	1834.0	1979.8	2128.4	2321.9	2400.4	2420.0
17.5°	577.6	726.3	1110.5	1222.7	1584.4	2010.6	2159.3	2282.6	2439.7	2493.0	2507.0
20°	504.7	681.4	1138.6	1284.4	1702.2	2139.6	2282.6	2378.0	2484.5	2518.2	2523.8
22.5°	451.5	633.7	1155.4	1306.8	1780.7	2218.2	2338.7	2414.4	2487.3	2498.6	2501.4
25°	406.6	580.5	1152.6	1332.0	1848.0	2265.8	2358.4	2414.4	2456.5	2462.1	2462.1
27.5°	364.5	521.6	1141.4	1337.7	1898.5	2277.0	2349.9	2389.2	2408.8	2420.0	2420.0
30°	328.1	465.5	1113.3	1326.4	1920.9	2265.8	2324.7	2344.3	2364.0	2380.8	2389.2
32.5°	300.0	412.2	1071.3	1304.0	1923.7	2237.8	2279.8	2291.1	2319.1	2358.4	2372.4
35°	274.8	358.9	1023.5	1273.2	1906.9	2192.9	2221.0	2232.2	2288.3	2347.1	2366.8
37.5°	249.6	319.7	961.8	1219.9	1881.7	2139.6	2159.3	2178.9	2265.8	2335.9	2358.4
40°	224.3	286.0	888.9	1161.0	1842.4	2075.1	2092.0	2122.8	2237.8	2319.1	2341.5
42.5°	204.7	258.0	810.4	1099.3	1791.9	2002.2	2027.5	2072.3	2204.1	2291.1	2316.3
45°	187.9	229.9	726.3	1015.1	1727.4	1926.5	1963.0	2024.7	2164.9	2249.0	2271.4
47.5°	171.1	210.3	639.3	928.2	1657.3	1850.8	1898.5	1968.6	2111.6	2192.9	2212.5
50°	157.0	190.7	552.4	835.6	1581.6	1769.5	1825.6	1898.5	2044.3	2120.0	2145.2
52.5°	145.8	173.9	471.1	743.1	1494.7	1685.4	1749.9	1825.6	1963.0	2035.9	2052.7
55°	134.6	159.8	401.0	644.9	1405.0	1595.6	1665.7	1738.6	1873.2	1934.9	1946.2
57.5°	129.0	148.6	342.1	552.4	1309.6	1494.7	1573.2	1640.5	1766.7	1814.4	1825.6
60°	120.6	140.2	297.2	473.9	1205.9	1399.3	1466.6	1533.9	1640.5	1679.8	1688.2
62.5°	112.2	134.6	263.6	398.2	1099.3	1287.2	1354.5	1416.2	1505.9	1533.9	1545.2
65°	106.6	129.0	238.4	342.1	989.9	1169.4	1236.7	1290.0	1362.9	1390.9	1396.5
67.5°	100.9	123.4	218.7	294.4	880.5	1051.5	1102.1	1152.6	1208.7	1236.7	1239.5
70°	92.5	117.8	201.9	260.8	768.3	916.9	959.0	1012.3	1057.2	1071.3	1079.7
72.5°	86.9	109.4	190.7	235.5	653.4	788.0	827.2	858.1	897.3	911.3	911.3
75°	78.5	98.1	179.5	210.3	535.6	644.9	678.6	709.4	740.3	745.9	737.5
77.5°	70.1	86.9	154.2	176.7	417.8	510.3	538.4	555.2	580.5	586.1	588.9
80°	58.9	75.7	120.6	137.4	302.8	375.8	395.4	409.4	431.8	431.8	437.4
82.5°	44.9	58.9	86.9	98.1	204.7	258.0	274.8	283.2	297.2	297.2	297.2
85°	28.0	36.5	56.1	64.5	123.4	157.0	168.2	171.1	182.3	185.1	185.1
87.5°	14.0	19.6	36.5	39.3	64.5	81.3	81.3	86.9	86.9	84.1	81.3
90°	17.5	31.5	45.5	49.0	76.9	114.2	132.9	118.1	88.6	66.5	66.5
92.5°	69.9	188.8	307.8	337.5	474.6	657.2	748.5	656.0	471.0	332.3	319.1
95°	167.9	385.5	603.2	657.6	1167.7	1847.9	2188.0	1952.4	1481.4	1128.1	1088.1
97.5°	290.3	482.3	674.3	722.3	1572.9	2707.0	3274.0	3125.2	2827.5	2604.2	2528.0
100°	384.7	558.9	733.0	776.6	1720.4	2978.8	3608.1	3618.9	3640.7	3657.0	3566.3
102.5°	465.2	627.7	790.1	830.8	1788.0	3064.3	3702.6	3892.2	4271.5	4556.0	4478.3
105°	601.7	739.3	876.8	911.2	1838.2	3074.1	3692.0	4117.2	4967.6	5605.3	5563.6
107.5°	741.6	869.8	998.1	1030.1	1847.4	2937.2	3482.2	4075.2	5261.4	6151.0	6161.1
110°	836.0	951.8	1067.6	1096.6	1833.5	2816.0	3307.3	3970.4	5296.4	6290.9	6334.5



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CATALOG NUMBER: SQ4-FB-150U-075D-92765-1D-UNV-STD-W-12-5000K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	928.7	1039.1	1149.5	1177.1	1834.1	2710.1	3148.1	3826.7	5183.9	6201.8	6268.6
115°	1068.6	1170.4	1272.3	1297.7	1851.0	2588.7	2957.5	3611.2	4918.6	5899.2	5991.9
117.5°	1206.8	1299.2	1391.8	1414.9	1885.3	2512.6	2826.3	3416.3	4596.2	5481.2	5584.0
120°	1287.2	1374.3	1461.3	1483.1	1913.3	2487.0	2773.8	3312.9	4391.0	5199.6	5299.5
122.5°	1365.9	1453.7	1541.6	1563.6	1953.6	2473.6	2733.6	3219.0	4189.9	4918.0	5016.6
125°	1486.6	1566.7	1646.8	1666.8	2007.8	2462.6	2689.9	3102.3	3927.0	4545.5	4636.2
127.5°	1584.5	1665.4	1746.2	1766.4	2062.0	2456.1	2653.2	3007.2	3715.4	4246.5	4323.0
130°	1637.0	1724.1	1811.1	1832.9	2101.6	2460.0	2639.1	2954.3	3584.8	4057.6	4128.3
132.5°	1691.3	1778.3	1865.3	1887.1	2133.7	2462.5	2626.9	2909.1	3473.5	3896.7	3960.1
135°	1771.6	1850.9	1930.3	1950.1	2168.7	2460.2	2606.0	2842.3	3314.8	3669.3	3723.9
137.5°	1853.9	1932.4	2010.9	2030.6	2221.1	2475.3	2602.4	2802.2	3201.7	3501.4	3546.1
140°	1922.1	1994.4	2066.7	2084.8	2253.2	2477.8	2590.2	2762.7	3107.9	3366.7	3408.5
142.5°	1974.6	2041.4	2108.2	2125.0	2280.0	2486.8	2590.2	2741.8	3044.9	3272.3	3308.3
145°	2055.0	2113.4	2171.6	2186.2	2315.0	2486.8	2572.7	2696.6	2944.6	3130.6	3157.8
147.5°	2135.4	2192.2	2248.9	2263.1	2366.3	2503.9	2572.7	2670.3	2865.3	3011.7	3034.2
150°	2188.0	2239.3	2290.6	2303.4	2393.1	2512.9	2572.7	2655.1	2819.9	2943.5	2961.7
152.5°	2242.2	2281.1	2319.8	2329.6	2410.6	2518.7	2572.7	2643.1	2783.7	2889.3	2903.1
155°	2322.7	2351.4	2380.1	2387.3	2449.1	2531.5	2572.7	2628.7	2740.7	2824.6	2833.7
157.5°	2382.1	2410.0	2438.0	2445.0	2487.5	2544.3	2572.7	2616.2	2703.3	2768.6	2775.0
160°	2422.3	2444.1	2465.8	2471.3	2505.1	2550.2	2572.7	2610.0	2684.6	2740.6	2744.3
162.5°	2462.5	2478.8	2495.1	2499.2	2523.7	2556.3	2572.7	2604.2	2667.2	2714.4	2717.8
165°	2506.2	2521.0	2535.8	2539.5	2550.5	2565.3	2572.7	2595.2	2640.3	2674.1	2677.8
167.5°	2546.5	2553.5	2560.4	2562.2	2571.6	2584.0	2590.2	2604.9	2634.5	2656.6	2658.2
170°	2572.7	2579.7	2586.7	2588.5	2589.0	2589.8	2590.2	2604.9	2634.5	2656.6	2656.6
172.5°	2586.7	2588.2	2589.8	2590.2	2590.2	2590.2	2590.2	2601.8	2625.2	2642.7	2641.3
175°	2606.0	2606.0	2606.0	2606.0	2600.7	2593.7	2590.2	2597.5	2612.3	2623.4	2623.4
177.5°	2606.0	2606.0	2606.0	2606.0	2601.8	2596.4	2593.7	2599.5	2611.2	2619.9	2618.3
180°	2606.0	2606.0	2606.0	2606.0	2606.0	2606.0	2606.0	2606.0	2606.0	2606.0	2606.0



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	872.1	872.1
2.5°	931.0	925.4
5°	1197.5	1203.1
7.5°	1612.5	1609.7
10°	2005.0	2030.3
12.5°	2291.1	2296.7
15°	2464.9	2476.1
17.5°	2532.2	2535.0
20°	2535.0	2529.4
22.5°	2504.2	2498.6
25°	2467.7	2464.9
27.5°	2434.1	2436.9
30°	2420.0	2428.5
32.5°	2420.0	2434.1
35°	2425.7	2439.7
37.5°	2422.9	2439.7
40°	2411.6	2431.3
42.5°	2380.8	2394.8
45°	2333.1	2349.9
47.5°	2271.4	2282.6
50°	2192.9	2204.1
52.5°	2094.8	2097.6
55°	1977.0	1988.2
57.5°	1850.8	1853.6
60°	1710.6	1719.0
62.5°	1562.0	1562.0
65°	1405.0	1410.6
67.5°	1242.3	1256.3
70°	1076.9	1079.7
72.5°	914.1	914.1
75°	745.9	748.7
77.5°	586.1	586.1
80°	434.6	437.4
82.5°	300.0	305.6
85°	187.9	187.9
87.5°	86.9	78.5
90°	66.5	66.5
92.5°	266.2	213.4
95°	927.9	767.8
97.5°	2223.3	1918.6
100°	3203.3	2840.3
102.5°	4167.4	3856.4
105°	5396.5	5229.4
107.5°	6201.6	6242.0
110°	6508.6	6682.8



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	6536.0	6803.4
115°	6362.6	6733.4
117.5°	5995.2	6406.4
120°	5699.0	6098.6
122.5°	5410.7	5804.8
125°	4999.3	5362.3
127.5°	4629.3	4935.5
130°	4411.3	4694.2
132.5°	4213.4	4466.8
135°	3942.3	4160.8
137.5°	3724.9	3903.6
140°	3575.6	3742.7
142.5°	3452.1	3595.8
145°	3266.7	3375.5
147.5°	3124.4	3214.5
150°	3034.8	3107.9
152.5°	2958.3	3013.4
155°	2870.2	2906.7
157.5°	2800.7	2826.3
160°	2759.1	2773.8
162.5°	2731.9	2745.9
165°	2692.6	2707.4
167.5°	2664.4	2670.6
170°	2656.6	2656.6
172.5°	2635.9	2630.4
175°	2623.4	2623.4
177.5°	2612.1	2606.0
180°	2606.0	2606.0



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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	2.07	2.78	3.18	3.90	5.44	15.26	15.98	16.38	17.09	18.64
	3H	2.76	3.40	3.89	4.53	6.09	17.09	17.74	18.22	18.86	20.42
	4H	3.05	3.66	4.19	4.79	6.35	17.74	18.35	18.87	19.47	21.04
	6H	3.30	3.86	4.44	4.98	6.56	18.16	18.73	19.31	19.85	21.43
	8H	3.36	3.89	4.51	5.04	6.61	18.28	18.82	19.43	19.96	21.53
	12H	3.37	3.88	4.52	5.01	6.61	18.35	18.86	19.50	19.99	21.59
4H	2H	9.27	9.88	10.42	11.01	12.57	15.52	16.13	16.66	17.25	18.82
	3H	10.83	11.34	11.97	12.49	14.07	17.55	18.06	18.70	19.21	20.79
	4H	10.92	11.38	12.07	12.52	14.12	18.32	18.79	19.47	19.92	21.52
	6H	10.92	11.32	12.07	12.48	14.07	18.85	19.26	20.01	20.42	22.00
	8H	10.89	11.27	12.05	12.42	14.02	19.01	19.39	20.17	20.54	22.15
	12H	10.84	11.18	12.01	12.34	13.96	19.10	19.44	20.27	20.61	22.22
8H	4H	12.35	12.73	13.51	13.88	15.49	18.36	18.74	19.52	19.89	21.50
	6H	12.59	12.90	13.76	14.09	15.69	18.99	19.30	20.17	20.50	22.10
	8H	12.60	12.87	13.78	14.05	15.67	19.21	19.48	20.39	20.66	22.28
	12H	12.56	12.80	13.75	13.97	15.63	19.35	19.59	20.54	20.76	22.42
12H	4H	12.49	12.83	13.66	13.99	15.60	18.31	18.65	19.48	19.81	21.43
	6H	12.84	13.12	14.03	14.29	15.91	18.97	19.24	20.15	20.42	22.04
	8H	12.91	13.14	14.09	14.31	15.97	19.20	19.44	20.38	20.61	22.26