

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: P938556

Luminaire Tested: SQ4-FB-150U-125D-93050-1D-UNV-STD-W-12-5000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938556
REPORT IS A COMBINATION OF REPORTS P933624 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-12-5000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

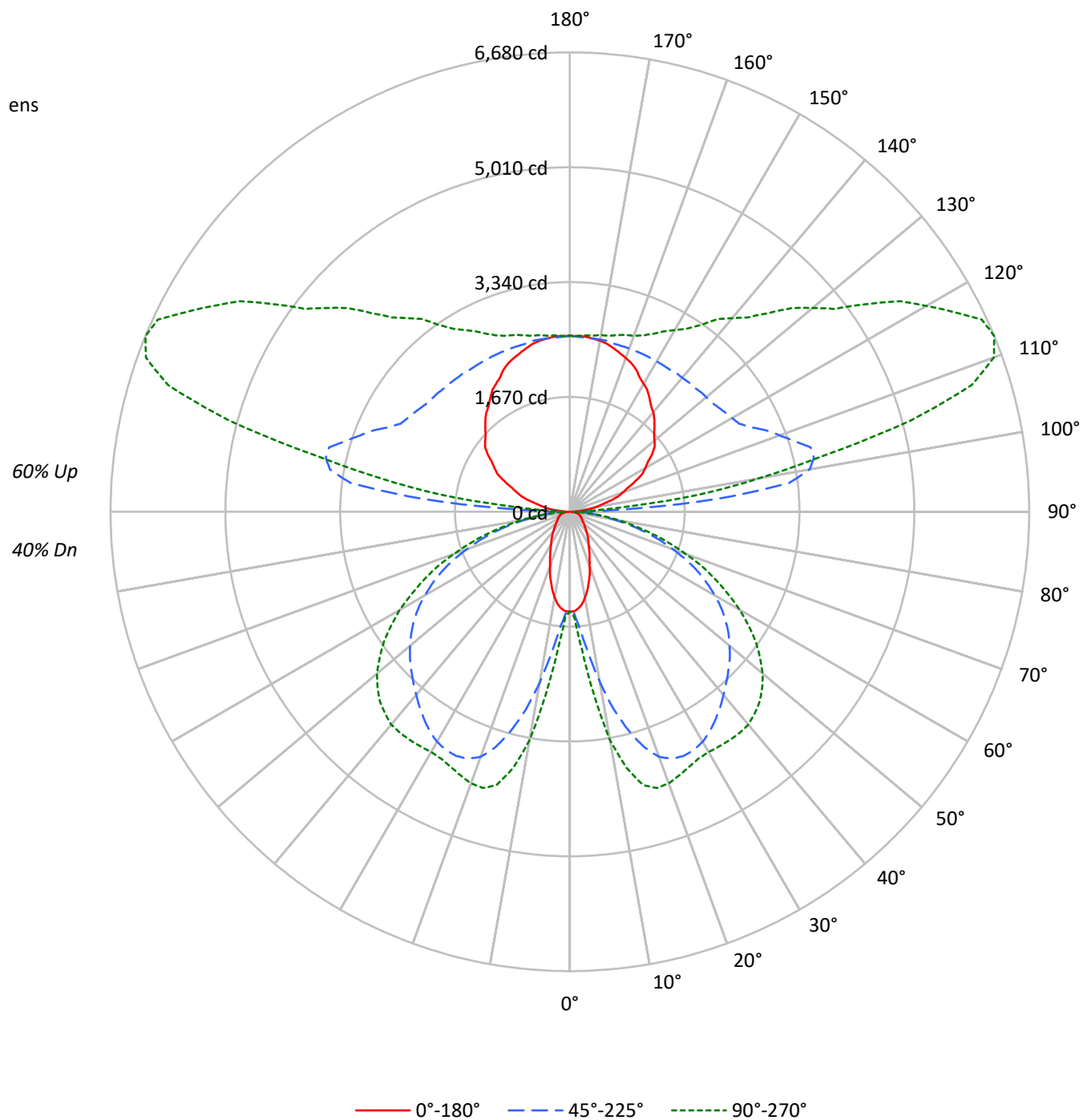
Lumens per Lamp: N/A
Luminaire Lumens: 27804.3 lumens
Efficiency: N/A
Efficacy: 111.4 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 249.6
Input Voltage (V): NR
Input Current (Ain): 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: P938556

CATALOG NUMBER: SQ4-FB-150U-125D-93050-1D-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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47
1	95	91	87	83	86	83	79	76	68	65	63	54	52	51	41	40	39
2	86	79	72	67	78	72	66	62	59	55	51	47	44	42	36	34	32
3	78	69	61	55	71	63	56	51	51	47	43	41	37	35	31	29	27
4	71	60	52	46	65	55	48	43	45	40	36	36	32	29	27	25	23
5	65	53	45	39	59	49	42	36	40	35	30	32	28	25	24	22	19
6	60	48	39	34	54	44	36	31	36	30	26	29	25	21	22	19	17
7	55	43	35	29	50	39	32	27	32	27	23	26	22	19	20	17	15
8	51	39	31	25	46	35	28	24	29	24	20	23	19	16	18	15	13
9	47	35	27	22	43	32	25	21	27	21	18	21	17	15	17	14	11
10	44	32	25	20	40	29	23	18	24	19	16	20	16	13	15	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4482	4482	4482
5°	4380	5181	6024
10°	3974	7554	9987
15°	3379	9872	12059
20°	2752	11443	12290
25°	2296	11977	12040
30°	1938	12056	12017
35°	1714	11859	12328
40°	1494	11602	12649
45°	1354	11415	12699
50°	1243	11247	12489
55°	1192	11000	11935
60°	1221	10522	11061
65°	1273	9792	9860
70°	1359	8546	8329
75°	1511	6974	6500
80°	1663	4843	4380
85°	1510	2574	2242

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 12699 cd/sqm

TEST NUMBER: P938556

CATALOG NUMBER: SQ4-FB-150U-125D-93050-1D-UNV-STD-W-12-5000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	187.4	0.7
10°-20°	830.7	3.0
20°-30°	1453.0	5.2
30°-40°	1870.4	6.7
40°-50°	2089.2	7.5
50°-60°	2000.9	7.2
60°-70°	1585.7	5.7
70°-80°	932.5	3.4
80°-90°	268.8	1.0
90°-100°	1247.1	4.5
100°-110°	3278.8	11.8
110°-120°	3399.8	12.2
120°-130°	2727.0	9.8
130°-140°	2139.7	7.7
140°-150°	1642.3	5.9
150°-160°	1182.8	4.3
160°-170°	723.7	2.6
170°-180°	244.5	0.9
0°-30°	2471.0	8.9
0°-40°	4341.4	15.6
0°-60°	8431.5	30.3
0°-90°	11218.5	40.3
90°-120°	7925.7	28.5
90°-150°	14434.9	51.9
90°-180°	16586.0	59.7
0°-180°	27804.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1449	1449	1449	1449	1449	
5°	1412	1514	1705	1929	1999	130
15°	1058	1952	3289	3988	4114	294
25°	676	2213	3918	4090	4095	311
35°	457	2115	3690	3900	4053	285
45°	312	1686	3261	3736	3904	241
55°	224	1072	2767	3215	3303	204
65°	177	568	2054	2311	2343	175
75°	130	350	1128	1239	1244	137
85°	47	107	280	308	312	49
90°	17	48	130	65	65	17
95°	165	646	2148	1108	754	183
105°	591	895	3625	5503	5134	626
115°	1049	1274	2904	5792	6611	1036
125°	1460	1636	2641	4463	5265	1296
135°	1739	1915	2558	3602	4085	1346
145°	2018	2146	2526	3074	3314	1264
155°	2280	2344	2526	2773	2854	1048
165°	2461	2493	2526	2625	2658	694
175°	2558	2558	2543	2576	2576	243
180°	2558	2558	2558	2558	2558	

TEST NUMBER: P938556

CATALOG NUMBER: SQ4-FB-150U-125D-93050-1D-UNV-STD-W-12-5000K

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1448.9	1448.9	1448.9	1448.9	1448.9	1448.9	1448.9	1448.9	1448.9	1448.9	1448.9
2.5°	1448.9	1448.9	1458.2	1462.9	1472.2	1476.8	1486.2	1495.5	1523.5	1528.1	1537.4
5°	1411.6	1430.2	1490.8	1514.1	1579.4	1667.9	1705.2	1765.7	1891.5	1928.8	1952.0
7.5°	1355.7	1397.6	1546.8	1584.0	1747.1	1980.0	2077.8	2208.3	2408.7	2506.5	2585.7
10°	1267.2	1355.7	1621.3	1709.8	1975.3	2329.4	2511.1	2692.8	2995.6	3130.7	3182.0
12.5°	1169.4	1313.8	1700.5	1821.6	2203.7	2720.8	2939.7	3140.1	3484.9	3666.6	3694.5
15°	1057.6	1253.2	1775.0	1952.0	2445.9	3046.9	3289.1	3536.1	3857.5	3988.0	4020.6
17.5°	959.7	1206.7	1844.9	2031.2	2632.2	3340.4	3587.4	3792.3	4053.2	4141.7	4165.1
20°	838.6	1132.1	1891.5	2133.7	2828.0	3554.7	3792.3	3950.7	4127.8	4183.7	4192.9
22.5°	750.0	1052.9	1919.5	2171.0	2958.4	3685.2	3885.5	4011.2	4132.4	4151.0	4155.7
25°	675.5	964.4	1914.8	2212.9	3070.1	3764.4	3918.1	4011.2	4081.2	4090.4	4090.4
27.5°	605.7	866.6	1896.1	2222.3	3154.0	3783.0	3904.1	3969.3	4002.0	4020.6	4020.6
30°	545.1	773.3	1849.5	2203.7	3191.3	3764.4	3862.2	3894.8	3927.5	3955.4	3969.3
32.5°	498.5	684.9	1779.7	2166.4	3196.0	3717.8	3787.7	3806.3	3852.9	3918.1	3941.4
35°	456.6	596.3	1700.5	2115.1	3168.1	3643.2	3689.8	3708.5	3801.6	3899.5	3932.0
37.5°	414.6	531.1	1598.0	2026.6	3126.1	3554.7	3587.4	3619.9	3764.4	3880.8	3918.1
40°	372.7	475.2	1476.8	1928.8	3060.9	3447.6	3475.5	3526.8	3717.8	3852.9	3890.1
42.5°	340.1	428.7	1346.4	1826.3	2977.0	3326.5	3368.4	3442.9	3661.9	3806.3	3848.3
45°	312.1	382.0	1206.7	1686.5	2869.8	3200.6	3261.2	3363.7	3596.6	3736.4	3773.7
47.5°	284.2	349.5	1062.2	1542.1	2753.4	3074.8	3154.0	3270.5	3508.2	3643.2	3675.8
50°	260.9	316.8	917.8	1388.4	2627.6	2939.7	3032.9	3154.0	3396.3	3522.1	3564.1
52.5°	242.3	288.9	782.7	1234.6	2483.2	2800.0	2907.2	3032.9	3261.2	3382.3	3410.2
55°	223.6	265.6	666.2	1071.5	2334.1	2650.9	2767.4	2888.5	3112.1	3214.6	3233.2
57.5°	214.3	247.0	568.4	917.8	2175.7	2483.2	2613.6	2725.5	2935.1	3014.3	3032.9
60°	200.3	232.9	493.8	787.4	2003.3	2324.8	2436.6	2548.4	2725.5	2790.6	2804.7
62.5°	186.4	223.6	437.9	661.6	1826.3	2138.4	2250.2	2352.7	2501.8	2548.4	2567.1
65°	177.0	214.3	396.0	568.4	1644.6	1942.8	2054.5	2143.1	2264.2	2310.8	2320.1
67.5°	167.8	205.0	363.4	489.2	1462.9	1747.1	1830.9	1914.8	2008.0	2054.5	2059.2
70°	153.7	195.7	335.4	433.2	1276.5	1523.5	1593.3	1681.9	1756.4	1779.7	1793.6
72.5°	144.4	181.7	316.8	391.3	1085.5	1309.2	1374.3	1425.6	1490.8	1514.1	1514.1
75°	130.4	163.1	298.2	349.5	889.8	1071.5	1127.5	1178.7	1229.9	1239.3	1225.3
77.5°	116.5	144.4	256.2	293.5	694.1	848.0	894.5	922.5	964.4	973.7	978.4
80°	97.8	125.8	200.3	228.3	503.2	624.3	656.9	680.2	717.5	717.5	726.8
82.5°	74.5	97.8	144.4	163.1	340.1	428.7	456.6	470.5	493.8	493.8	493.8
85°	46.6	60.6	93.1	107.2	205.0	260.9	279.5	284.2	302.8	307.5	307.5
87.5°	23.3	32.6	60.6	65.2	107.2	135.1	135.1	144.4	144.4	139.8	135.1
90°	17.2	30.9	44.7	48.1	75.5	112.1	130.5	116.0	87.0	65.2	65.2
92.5°	68.6	185.4	302.2	331.4	465.9	645.2	734.9	644.0	462.4	326.2	313.3
95°	164.8	378.5	592.2	645.6	1146.5	1814.3	2148.1	1916.9	1454.5	1107.6	1068.3
97.5°	285.0	473.5	662.0	709.2	1544.3	2657.7	3214.4	3068.3	2776.0	2556.8	2482.0
100°	377.7	548.7	719.7	762.4	1689.1	2924.6	3542.4	3553.0	3574.4	3590.5	3501.4
102.5°	456.7	616.2	775.7	815.6	1755.5	3008.6	3635.2	3821.4	4193.8	4473.1	4396.8
105°	590.7	725.8	860.9	894.7	1804.7	3018.1	3624.8	4042.3	4877.2	5503.3	5462.3
107.5°	728.1	854.0	979.9	1011.4	1813.8	2883.8	3418.8	4001.1	5165.6	6039.1	6049.0
110°	820.8	934.5	1048.2	1076.6	1800.2	2764.7	3247.1	3898.1	5200.0	6176.5	6219.2

TEST NUMBER: P938556

CATALOG NUMBER: SQ4-FB-150U-125D-93050-1D-UNV-STD-W-12-5000K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	911.8	1020.2	1128.6	1155.7	1800.7	2660.8	3090.8	3757.0	5089.5	6088.9	6154.5
115°	1049.2	1149.1	1249.2	1274.1	1817.3	2541.6	2903.7	3545.5	4829.1	5791.8	5882.9
117.5°	1184.8	1275.6	1366.4	1389.1	1851.0	2466.9	2774.8	3354.1	4512.6	5381.5	5482.4
120°	1263.8	1349.3	1434.7	1456.1	1878.5	2441.7	2723.4	3252.6	4311.1	5105.0	5203.1
122.5°	1341.0	1427.3	1513.6	1535.1	1918.1	2428.6	2683.9	3160.4	4113.7	4828.5	4925.3
125°	1459.6	1538.1	1616.8	1636.4	1971.3	2417.8	2640.9	3045.8	3855.5	4462.8	4551.9
127.5°	1555.7	1635.1	1714.4	1734.3	2024.4	2411.4	2604.9	2952.5	3647.7	4169.2	4244.3
130°	1607.3	1692.7	1778.1	1799.5	2063.3	2415.2	2591.1	2900.6	3519.5	3983.7	4053.2
132.5°	1660.5	1745.9	1831.4	1852.7	2094.8	2417.7	2579.1	2856.1	3410.2	3825.8	3888.0
135°	1739.4	1817.2	1895.1	1914.6	2129.2	2415.5	2558.5	2790.5	3254.5	3602.5	3656.1
137.5°	1820.2	1897.2	1974.3	1993.6	2180.7	2430.2	2555.0	2751.2	3143.5	3437.7	3481.6
140°	1887.1	1958.1	2029.1	2046.8	2212.2	2432.7	2543.0	2712.4	3051.3	3305.4	3346.5
142.5°	1938.6	2004.2	2069.9	2086.3	2238.5	2441.5	2543.0	2691.9	2989.5	3212.8	3248.1
145°	2017.6	2074.9	2132.1	2146.4	2272.9	2441.5	2525.9	2647.6	2891.0	3073.6	3100.3
147.5°	2096.6	2152.3	2208.0	2221.9	2323.2	2458.3	2525.9	2621.7	2813.2	2956.9	2979.0
150°	2148.1	2198.5	2248.9	2261.5	2349.6	2467.1	2525.9	2606.8	2768.6	2889.9	2907.8
152.5°	2201.4	2239.5	2277.6	2287.2	2366.7	2472.8	2525.9	2595.0	2733.1	2836.7	2850.3
155°	2280.4	2308.6	2336.8	2343.9	2404.5	2485.4	2525.9	2580.8	2690.8	2773.2	2782.2
157.5°	2338.7	2366.2	2393.6	2400.5	2442.3	2498.0	2525.9	2568.6	2654.1	2718.2	2724.5
160°	2378.2	2399.6	2421.0	2426.3	2459.5	2503.7	2525.9	2562.5	2635.7	2690.7	2694.4
162.5°	2417.7	2433.7	2449.7	2453.7	2477.8	2509.8	2525.9	2556.8	2618.6	2665.0	2668.4
165°	2460.6	2475.1	2489.6	2493.3	2504.1	2518.6	2525.9	2548.0	2592.2	2625.4	2629.1
167.5°	2500.2	2507.1	2513.8	2515.6	2524.8	2537.0	2543.0	2557.5	2586.5	2608.3	2609.8
170°	2525.9	2532.7	2539.6	2541.4	2541.9	2542.7	2543.0	2557.5	2586.5	2608.3	2608.3
172.5°	2539.6	2541.1	2542.7	2543.0	2543.0	2543.0	2543.0	2554.5	2577.4	2594.6	2593.2
175°	2558.5	2558.5	2558.5	2558.5	2553.4	2546.5	2543.0	2550.3	2564.8	2575.7	2575.7
177.5°	2558.5	2558.5	2558.5	2558.5	2554.5	2549.2	2546.5	2552.2	2563.7	2572.2	2570.6
180°	2558.5	2558.5	2558.5	2558.5	2558.5	2558.5	2558.5	2558.5	2558.5	2558.5	2558.5



TEST NUMBER: P938556

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1448.9	1448.9
2.5°	1546.8	1537.4
5°	1989.4	1998.6
7.5°	2678.8	2674.2
10°	3331.0	3373.0
12.5°	3806.3	3815.6
15°	4095.1	4113.8
17.5°	4207.0	4211.6
20°	4211.6	4202.3
22.5°	4160.4	4151.0
25°	4099.8	4095.1
27.5°	4043.9	4048.6
30°	4020.6	4034.6
32.5°	4020.6	4043.9
35°	4029.9	4053.2
37.5°	4025.3	4053.2
40°	4006.7	4039.2
42.5°	3955.4	3978.7
45°	3876.2	3904.1
47.5°	3773.7	3792.3
50°	3643.2	3661.9
52.5°	3480.2	3484.9
55°	3284.5	3303.2
57.5°	3074.8	3079.5
60°	2841.9	2855.9
62.5°	2595.0	2595.0
65°	2334.1	2343.4
67.5°	2063.9	2087.2
70°	1789.0	1793.6
72.5°	1518.8	1518.8
75°	1239.3	1243.9
77.5°	973.7	973.7
80°	722.1	726.8
82.5°	498.5	507.9
85°	312.1	312.1
87.5°	144.4	130.4
90°	65.2	65.2
92.5°	261.4	209.5
95°	911.0	753.8
97.5°	2182.8	1883.7
100°	3145.0	2788.6
102.5°	4091.5	3786.2
105°	5298.3	5134.2
107.5°	6088.7	6128.4
110°	6390.2	6561.2



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	6417.1	6679.6
115°	6246.8	6610.9
117.5°	5886.1	6289.8
120°	5595.3	5987.6
122.5°	5312.3	5699.2
125°	4908.3	5264.7
127.5°	4545.1	4845.7
130°	4331.0	4608.8
132.5°	4136.7	4385.5
135°	3870.6	4085.0
137.5°	3657.1	3832.6
140°	3510.6	3674.6
142.5°	3389.2	3530.4
145°	3207.3	3314.1
147.5°	3067.6	3156.0
150°	2979.6	3051.3
152.5°	2904.4	2958.6
155°	2818.0	2853.8
157.5°	2749.7	2774.8
160°	2708.9	2723.4
162.5°	2682.1	2695.9
165°	2643.6	2658.1
167.5°	2615.9	2622.0
170°	2608.3	2608.3
172.5°	2587.9	2582.6
175°	2575.7	2575.7
177.5°	2564.6	2558.5
180°	2558.5	2558.5

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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	5.27	6.08	6.30	7.12	8.52	18.46	19.27	19.49	20.31	21.71
	3H	5.97	6.70	7.01	7.75	9.17	20.30	21.03	21.34	22.08	23.50
	4H	6.27	6.96	7.32	8.01	9.44	20.95	21.64	22.00	22.69	24.12
	6H	6.51	7.15	7.58	8.21	9.65	21.38	22.02	22.44	23.07	24.51
	8H	6.58	7.19	7.65	8.26	9.69	21.50	22.11	22.57	23.18	24.61
	12H	6.60	7.17	7.67	8.24	9.70	21.57	22.15	22.64	23.21	24.67
4H	2H	12.49	13.18	13.54	14.23	15.65	18.73	19.42	19.79	20.47	21.90
	3H	14.05	14.63	15.11	15.71	17.15	20.77	21.35	21.84	22.43	23.87
	4H	14.14	14.67	15.21	15.74	17.20	21.54	22.07	22.61	23.14	24.60
	6H	14.15	14.60	15.23	15.70	17.15	22.08	22.54	23.16	23.63	25.09
	8H	14.12	14.55	15.21	15.64	17.11	22.25	22.67	23.33	23.76	25.23
	12H	14.08	14.46	15.18	15.56	17.04	22.34	22.73	23.44	23.83	25.30
8H	4H	15.59	16.01	16.67	17.10	18.57	21.60	22.03	22.68	23.11	24.58
	6H	15.82	16.18	16.93	17.31	18.77	22.23	22.58	23.33	23.71	25.18
	8H	15.84	16.15	16.95	17.26	18.75	22.45	22.76	23.56	23.87	25.36
	12H	15.81	16.08	16.92	17.19	18.71	22.60	22.87	23.71	23.98	25.50
12H	4H	15.73	16.11	16.83	17.21	18.69	21.55	21.94	22.65	23.03	24.51
	6H	16.08	16.39	17.20	17.50	18.99	22.21	22.52	23.32	23.63	25.12
	8H	16.15	16.42	17.27	17.53	19.06	22.44	22.72	23.56	23.82	25.35