

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: P938413

Luminaire Tested: SQ4-FB-150U-100D-835-1D-UNV-STD-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938413
REPORT IS A COMBINATION OF REPORTS P933623 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-100D-835-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

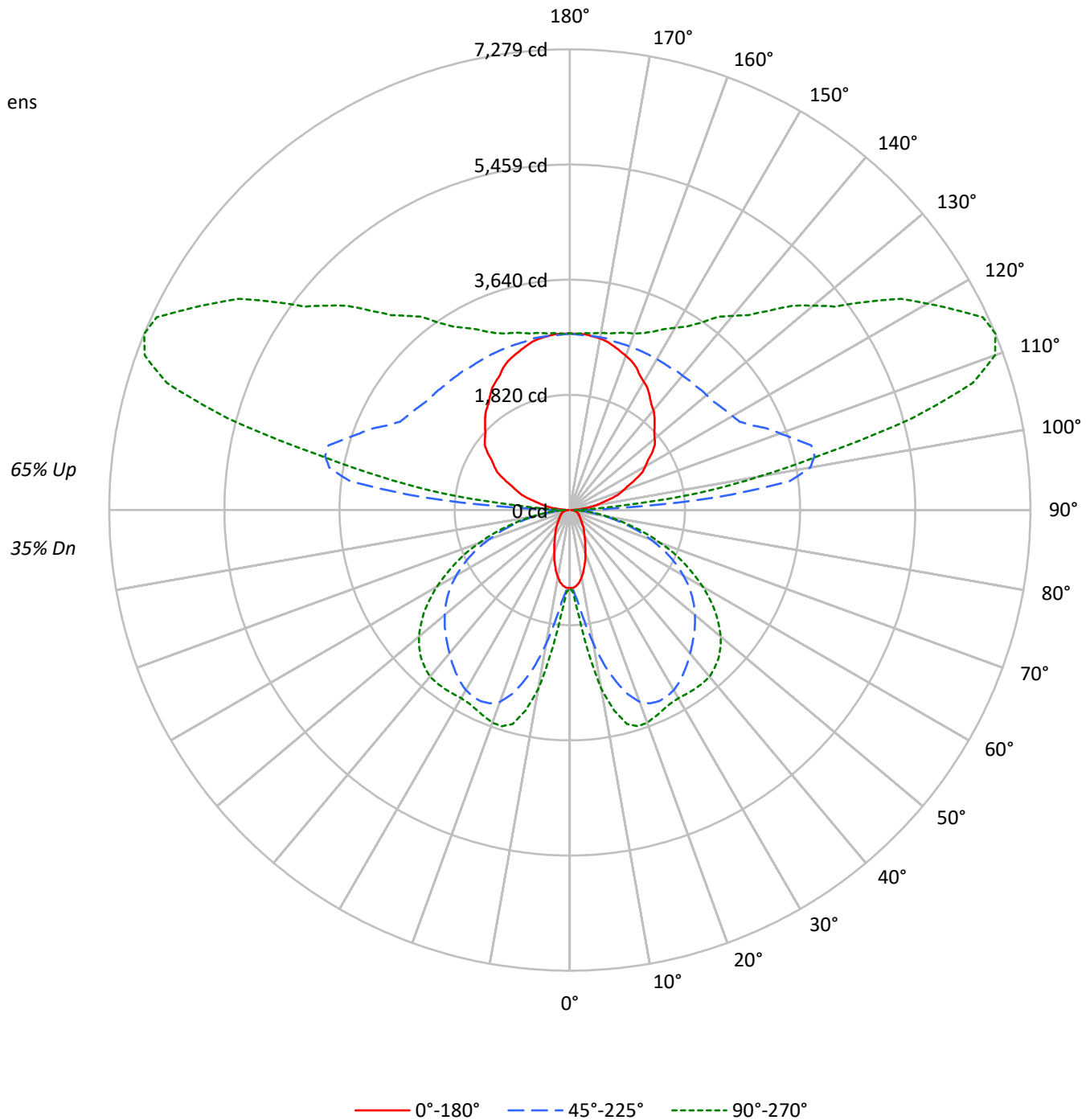
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 27620.0 lumens
Efficiency: N/A
Efficacy: 127.2 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): 217.2
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

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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	103	103	103	103	93	93	93	93	75	75	75	58	58	58	42	42	42	42	42	42	35
1	94	90	86	82	85	81	78	75	65	63	60	50	49	47	36	35	35	36	35	35	28
2	85	78	72	66	77	70	65	61	56	53	49	43	41	39	32	30	29	32	30	29	23
3	77	68	61	55	69	61	55	50	49	45	41	38	35	32	28	26	24	28	26	24	19
4	71	60	52	46	63	54	47	42	43	38	34	34	30	27	24	22	20	24	22	20	16
5	64	53	45	39	58	48	41	36	39	33	29	30	26	23	22	19	17	22	19	17	14
6	59	47	39	33	53	43	36	30	34	29	25	27	23	20	19	17	15	19	17	15	12
7	54	42	34	29	49	38	31	26	31	26	22	24	20	17	18	15	13	18	15	13	10
8	50	38	30	25	45	35	28	23	28	23	19	22	18	15	16	13	11	16	13	11	9
9	47	35	27	22	42	31	25	20	26	20	17	20	16	14	15	12	10	15	12	10	8
10	43	31	24	20	39	29	22	18	23	18	15	18	15	12	13	11	9	13	11	9	7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3813	3813	3813
5°	3726	4408	5125
10°	3381	6427	8496
15°	2875	8399	10259
20°	2341	9735	10456
25°	1954	10190	10243
30°	1648	10257	10224
35°	1458	10089	10488
40°	1271	9870	10761
45°	1152	9711	10804
50°	1058	9569	10625
55°	1014	9359	10154
60°	1039	8952	9410
65°	1083	8331	8388
70°	1156	7271	7087
75°	1287	5933	5530
80°	1415	4120	3726
85°	1283	2190	1908

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10804 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	159.5	0.6
10°-20°	706.7	2.6
20°-30°	1236.1	4.5
30°-40°	1591.3	5.8
40°-50°	1777.4	6.4
50°-60°	1702.3	6.2
60°-70°	1349.1	4.9
70°-80°	793.3	2.9
80°-90°	231.0	0.8
90°-100°	1359.0	4.9
100°-110°	3572.9	12.9
110°-120°	3704.7	13.4
120°-130°	2971.6	10.8
130°-140°	2331.7	8.4
140°-150°	1789.6	6.5
150°-160°	1288.8	4.7
160°-170°	788.6	2.9
170°-180°	266.4	1.0
0°-30°	2102.3	7.6
0°-40°	3693.5	13.4
0°-60°	7173.2	26.0
0°-90°	9546.6	34.6
90°-120°	8636.6	31.3
90°-150°	15729.5	56.9
90°-180°	18073.0	65.4
0°-180°	27620.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1233	1233	1233	1233	1233	
5°	1201	1288	1451	1641	1700	111
15°	900	1661	2798	3393	3500	250
25°	575	1883	3333	3480	3484	265
35°	388	1800	3139	3318	3448	243
45°	266	1435	2774	3179	3322	205
55°	190	912	2354	2735	2810	173
65°	151	484	1748	1966	1994	149
75°	111	297	959	1054	1058	116
85°	40	91	238	262	266	42
90°	19	52	142	71	71	18
95°	180	704	2341	1207	821	199
105°	644	975	3950	5997	5595	682
115°	1143	1388	3164	6311	7204	1129
125°	1590	1783	2878	4863	5737	1412
135°	1895	2086	2788	3926	4451	1467
145°	2199	2339	2752	3349	3611	1377
155°	2485	2554	2752	3022	3110	1142
165°	2681	2717	2752	2861	2896	757
175°	2788	2788	2771	2807	2807	265
180°	2788	2788	2788	2788	2788	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1232.7	1232.7	1232.7	1232.7	1232.7	1232.7	1232.7	1232.7	1232.7	1232.7	1232.7
2.5°	1232.7	1232.7	1240.6	1244.6	1252.5	1256.5	1264.4	1272.3	1296.1	1300.1	1308.0
5°	1201.0	1216.8	1268.4	1288.2	1343.7	1419.0	1450.7	1502.2	1609.2	1640.9	1660.7
7.5°	1153.4	1189.1	1315.9	1347.6	1486.3	1684.5	1767.8	1878.7	2049.2	2132.4	2199.8
10°	1078.1	1153.4	1379.3	1454.6	1680.6	1981.8	2136.4	2291.0	2548.6	2663.5	2707.1
12.5°	994.9	1117.7	1446.7	1549.8	1874.8	2314.7	2501.0	2671.5	2964.8	3119.4	3143.1
15°	899.7	1066.2	1510.1	1660.7	2080.9	2592.2	2798.3	3008.4	3281.9	3392.8	3420.6
17.5°	816.5	1026.6	1569.6	1728.1	2239.4	2841.9	3052.0	3226.4	3448.3	3523.6	3543.5
20°	713.4	963.2	1609.2	1815.3	2405.9	3024.2	3226.4	3361.1	3511.7	3559.3	3567.2
22.5°	638.1	895.8	1633.0	1847.0	2516.9	3135.2	3305.6	3412.7	3515.7	3531.6	3535.5
25°	574.7	820.5	1629.0	1882.7	2612.0	3202.6	3333.4	3412.7	3472.1	3480.0	3480.0
27.5°	515.3	737.2	1613.2	1890.6	2683.4	3218.4	3321.5	3377.0	3404.7	3420.6	3420.6
30°	463.7	658.0	1573.5	1874.8	2715.1	3202.6	3285.8	3313.6	3341.3	3365.1	3377.0
32.5°	424.1	582.6	1514.1	1843.1	2719.0	3163.0	3222.4	3238.3	3277.9	3333.4	3353.2
35°	388.4	507.3	1446.7	1799.5	2695.2	3099.5	3139.2	3155.0	3234.3	3317.5	3345.3
37.5°	352.8	451.9	1359.5	1724.2	2659.6	3024.2	3052.0	3079.7	3202.6	3301.7	3333.4
40°	317.1	404.3	1256.5	1640.9	2604.1	2933.1	2956.8	3000.4	3163.0	3277.9	3309.6
42.5°	289.3	364.7	1145.5	1553.7	2532.7	2830.0	2865.7	2929.1	3115.4	3238.3	3273.9
45°	265.6	325.0	1026.6	1434.8	2441.6	2723.0	2774.5	2861.7	3059.9	3178.8	3210.5
47.5°	241.8	297.3	903.7	1312.0	2342.5	2616.0	2683.4	2782.4	2984.6	3099.5	3127.3
50°	222.0	269.5	780.8	1181.2	2235.5	2501.0	2580.3	2683.4	2889.5	2996.5	3032.2
52.5°	206.1	245.7	665.9	1050.4	2112.6	2382.1	2473.3	2580.3	2774.5	2877.6	2901.4
55°	190.3	225.9	566.8	911.6	1985.8	2255.3	2354.4	2457.4	2647.7	2734.9	2750.7
57.5°	182.3	210.1	483.6	780.8	1851.0	2112.6	2223.6	2318.7	2497.1	2564.4	2580.3
60°	170.4	198.2	420.1	669.8	1704.3	1977.8	2073.0	2168.1	2318.7	2374.2	2386.1
62.5°	158.5	190.3	372.6	562.8	1553.7	1819.3	1914.4	2001.6	2128.5	2168.1	2183.9
65°	150.6	182.3	336.9	483.6	1399.2	1652.8	1747.9	1823.3	1926.3	1965.9	1973.9
67.5°	142.7	174.4	309.2	416.2	1244.6	1486.3	1557.7	1629.0	1708.3	1747.9	1751.9
70°	130.8	166.5	285.4	368.6	1086.0	1296.1	1355.6	1430.9	1494.3	1514.1	1526.0
72.5°	122.9	154.6	269.5	332.9	923.5	1113.8	1169.3	1212.9	1268.4	1288.2	1288.2
75°	111.0	138.7	253.7	297.3	757.0	911.6	959.2	1002.8	1046.4	1054.3	1042.4
77.5°	99.1	122.9	218.0	249.7	590.6	721.4	761.0	784.8	820.5	828.4	832.4
80°	83.2	107.0	170.4	194.2	428.1	531.1	558.9	578.7	610.4	610.4	618.3
82.5°	63.4	83.2	122.9	138.7	289.3	364.7	388.4	400.3	420.1	420.1	420.1
85°	39.6	51.5	79.3	91.2	174.4	222.0	237.8	241.8	257.6	261.6	261.6
87.5°	19.8	27.7	51.5	55.5	91.2	114.9	114.9	122.9	122.9	118.9	114.9
90°	18.7	33.7	48.7	52.4	82.3	122.2	142.2	126.4	94.8	71.1	71.1
92.5°	74.8	202.0	329.3	361.1	507.7	703.1	800.8	701.8	503.9	355.5	341.4
95°	179.6	412.4	645.3	703.5	1249.3	1977.0	2340.8	2088.8	1584.9	1206.9	1164.1
97.5°	310.6	516.0	721.4	772.8	1682.8	2896.1	3502.7	3343.5	3025.0	2786.1	2704.6
100°	411.6	597.9	784.2	830.8	1840.6	3186.9	3860.1	3871.7	3895.0	3912.5	3815.4
102.5°	497.7	671.5	845.3	888.8	1912.9	3278.4	3961.2	4164.1	4569.9	4874.3	4791.1
105°	643.7	790.9	938.1	974.9	1966.6	3288.8	3949.9	4404.8	5314.6	5996.9	5952.2
107.5°	793.4	930.6	1067.8	1102.1	1976.5	3142.4	3725.4	4359.9	5628.9	6580.7	6591.5
110°	894.4	1018.3	1142.2	1173.2	1961.6	3012.7	3538.3	4247.7	5666.4	6730.4	6777.0



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	993.6	1111.7	1229.8	1259.3	1962.2	2899.4	3368.0	4094.0	5546.0	6635.0	6706.5
115°	1143.3	1252.2	1361.2	1388.4	1980.3	2769.5	3164.1	3863.5	5262.2	6311.3	6410.5
117.5°	1291.1	1390.0	1489.0	1513.7	2017.0	2688.1	3023.7	3654.9	4917.3	5864.1	5974.1
120°	1377.1	1470.3	1563.4	1586.7	2047.0	2660.7	2967.6	3544.3	4697.7	5562.8	5669.7
122.5°	1461.3	1555.3	1649.3	1672.8	2090.1	2646.4	2924.6	3443.9	4482.6	5261.6	5367.0
125°	1590.5	1676.1	1761.8	1783.2	2148.1	2634.6	2877.8	3319.0	4201.3	4863.0	4960.1
127.5°	1695.2	1781.7	1868.2	1889.8	2206.0	2627.7	2838.5	3217.3	3974.9	4543.1	4625.0
130°	1751.4	1844.5	1937.6	1960.9	2248.4	2631.8	2823.5	3160.7	3835.2	4341.0	4416.7
132.5°	1809.4	1902.5	1995.6	2018.9	2282.7	2634.5	2810.4	3112.3	3716.1	4168.9	4236.7
135°	1895.4	1980.2	2065.1	2086.3	2320.2	2632.1	2788.0	3040.8	3546.4	3925.6	3984.0
137.5°	1983.4	2067.4	2151.4	2172.4	2376.3	2648.2	2784.2	2997.9	3425.4	3746.0	3793.8
140°	2056.4	2133.7	2211.1	2230.4	2410.6	2650.9	2771.1	2955.7	3325.0	3601.9	3646.6
142.5°	2112.5	2184.0	2255.5	2273.4	2439.3	2660.5	2771.1	2933.3	3257.6	3500.9	3539.4
145°	2198.6	2261.0	2323.3	2338.9	2476.7	2660.5	2752.4	2885.0	3150.3	3349.3	3378.4
147.5°	2284.6	2345.3	2406.0	2421.2	2531.6	2678.8	2752.4	2856.8	3065.5	3222.1	3246.2
150°	2340.8	2395.7	2450.6	2464.3	2560.3	2688.4	2752.4	2840.6	3016.9	3149.1	3168.6
152.5°	2398.8	2440.4	2481.9	2492.3	2579.0	2694.6	2752.4	2827.7	2978.2	3091.1	3105.9
155°	2484.9	2515.7	2546.4	2554.1	2620.2	2708.3	2752.4	2812.3	2932.1	3021.9	3031.7
157.5°	2548.5	2578.4	2608.3	2615.8	2661.3	2722.0	2752.4	2799.0	2892.1	2962.0	2968.9
160°	2591.5	2614.8	2638.1	2643.9	2680.1	2728.3	2752.4	2792.3	2872.1	2932.0	2936.0
162.5°	2634.5	2652.0	2669.4	2673.8	2700.0	2734.9	2752.4	2786.1	2853.5	2904.0	2907.7
165°	2681.3	2697.1	2712.9	2716.9	2728.7	2744.5	2752.4	2776.5	2824.7	2860.9	2864.9
167.5°	2724.4	2731.9	2739.3	2741.2	2751.2	2764.5	2771.1	2786.9	2818.5	2842.2	2843.9
170°	2752.4	2759.9	2767.4	2769.3	2769.9	2770.7	2771.1	2786.9	2818.5	2842.2	2842.2
172.5°	2767.4	2769.0	2770.7	2771.1	2771.1	2771.1	2771.1	2783.6	2808.6	2827.3	2825.8
175°	2788.0	2788.0	2788.0	2788.0	2782.4	2774.9	2771.1	2779.0	2794.8	2806.7	2806.7
177.5°	2788.0	2788.0	2788.0	2788.0	2783.6	2777.8	2774.9	2781.1	2793.6	2802.9	2801.2
180°	2788.0	2788.0	2788.0	2788.0	2788.0	2788.0	2788.0	2788.0	2788.0	2788.0	2788.0



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1232.7	1232.7
2.5°	1315.9	1308.0
5°	1692.5	1700.4
7.5°	2279.1	2275.1
10°	2834.0	2869.6
12.5°	3238.3	3246.2
15°	3484.0	3499.9
17.5°	3579.1	3583.1
20°	3583.1	3575.2
22.5°	3539.5	3531.6
25°	3488.0	3484.0
27.5°	3440.4	3444.4
30°	3420.6	3432.5
32.5°	3420.6	3440.4
35°	3428.5	3448.3
37.5°	3424.5	3448.3
40°	3408.7	3436.4
42.5°	3365.1	3384.9
45°	3297.7	3321.5
47.5°	3210.5	3226.4
50°	3099.5	3115.4
52.5°	2960.8	2964.8
55°	2794.3	2810.2
57.5°	2616.0	2619.9
60°	2417.8	2429.7
62.5°	2207.7	2207.7
65°	1985.8	1993.7
67.5°	1755.9	1775.7
70°	1522.0	1526.0
72.5°	1292.1	1292.1
75°	1054.3	1058.3
77.5°	828.4	828.4
80°	614.4	618.3
82.5°	424.1	432.0
85°	265.6	265.6
87.5°	122.9	111.0
90°	71.1	71.1
92.5°	284.8	228.3
95°	992.7	821.4
97.5°	2378.6	2052.6
100°	3427.1	3038.7
102.5°	4458.5	4125.8
105°	5773.5	5594.7
107.5°	6634.8	6678.0
110°	6963.3	7149.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	6992.6	7278.7
115°	6807.1	7203.8
117.5°	6414.0	6853.9
120°	6097.1	6524.6
122.5°	5788.7	6210.3
125°	5348.5	5736.9
127.5°	4952.7	5280.3
130°	4719.4	5022.1
132.5°	4507.7	4778.8
135°	4217.7	4451.4
137.5°	3985.1	4176.3
140°	3825.4	4004.2
142.5°	3693.2	3847.0
145°	3494.9	3611.3
147.5°	3342.7	3439.1
150°	3246.8	3325.0
152.5°	3164.9	3223.9
155°	3070.7	3109.8
157.5°	2996.3	3023.7
160°	2951.8	2967.6
162.5°	2922.7	2937.7
165°	2880.7	2896.5
167.5°	2850.5	2857.2
170°	2842.2	2842.2
172.5°	2820.0	2814.2
175°	2806.7	2806.7
177.5°	2794.6	2788.0
180°	2788.0	2788.0



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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	4.05	4.81	5.13	5.89	7.37	17.24	18.01	18.32	19.08	20.56
	3H	4.75	5.43	5.83	6.52	8.01	19.08	19.76	20.16	20.85	22.34
	4H	5.04	5.69	6.14	6.78	8.28	19.73	20.37	20.82	21.46	22.96
	6H	5.29	5.89	6.39	6.98	8.49	20.15	20.75	21.26	21.84	23.35
	8H	5.35	5.92	6.46	7.03	8.53	20.27	20.84	21.38	21.95	23.46
	12H	5.37	5.91	6.48	7.01	8.54	20.34	20.88	21.45	21.98	23.51
4H	2H	11.26	11.91	12.36	13.00	14.50	17.51	18.15	18.61	19.24	20.74
	3H	12.82	13.36	13.93	14.48	15.99	19.55	20.09	20.65	21.20	22.71
	4H	12.91	13.41	14.02	14.51	16.04	20.31	20.81	21.42	21.92	23.45
	6H	12.92	13.34	14.03	14.47	15.99	20.85	21.28	21.97	22.41	23.93
	8H	12.89	13.29	14.01	14.41	15.95	21.01	21.41	22.13	22.53	24.07
	12H	12.84	13.20	13.98	14.34	15.88	21.10	21.47	22.24	22.60	24.14
8H	4H	14.35	14.75	15.47	15.87	17.41	20.36	20.76	21.48	21.88	23.42
	6H	14.59	14.92	15.73	16.08	17.62	20.99	21.32	22.13	22.49	24.02
	8H	14.60	14.89	15.75	16.04	17.59	21.21	21.50	22.36	22.65	24.20
	12H	14.57	14.82	15.72	15.96	17.55	21.36	21.61	22.51	22.75	24.34
12H	4H	14.49	14.85	15.63	15.99	17.53	20.31	20.68	21.45	21.81	23.35
	6H	14.85	15.14	15.99	16.28	17.84	20.98	21.27	22.12	22.41	23.96
	8H	14.91	15.17	16.06	16.30	17.90	21.20	21.46	22.35	22.60	24.19