

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: P938509

Luminaire Tested: SQ4-FB-150U-125D-830-1D-UNV-STD-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938509
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-830-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

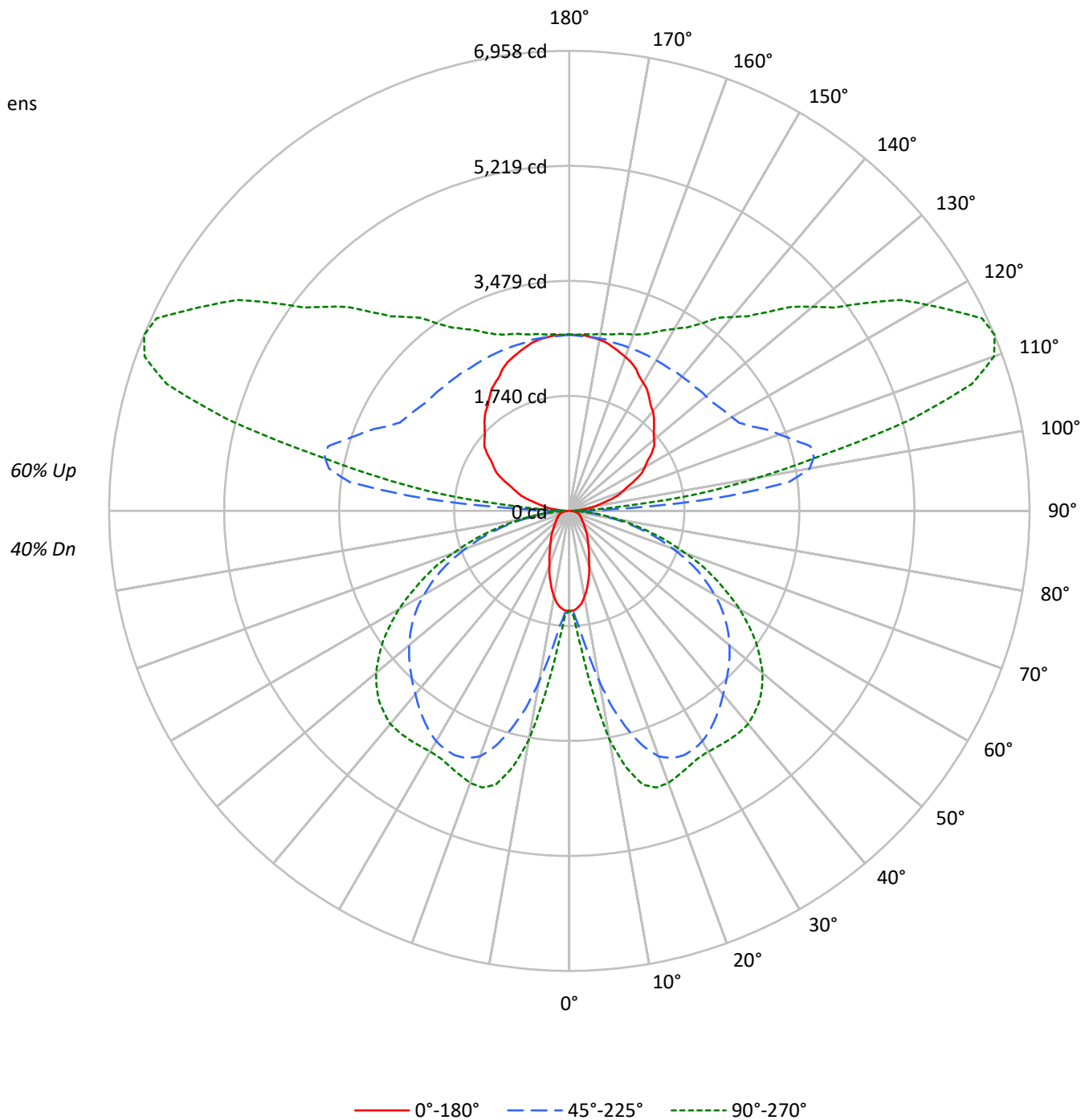
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 28964.9 lumens
Efficiency: N/A
Efficacy: 116.0 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: General Diffuse

Input Watts (W): 249.6
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				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	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	47	47	47	40
1	95	91	87	83	86	83	79	76	68	65	63	54	52	51	41	40	39	39	39	39	33
2	86	79	72	67	78	72	66	62	59	55	51	47	44	42	36	34	32	32	32	32	27
3	78	69	61	55	71	63	56	51	51	47	43	41	37	35	31	29	27	27	27	27	22
4	71	60	52	46	65	55	48	43	45	40	36	36	32	29	27	25	23	23	23	23	19
5	65	53	45	39	59	49	42	36	40	35	30	32	28	25	24	22	19	19	19	19	16
6	60	48	39	34	54	44	36	31	36	30	26	29	25	21	22	19	17	17	17	17	14
7	55	43	35	29	50	39	32	27	32	27	23	26	22	19	20	17	15	15	15	15	12
8	51	39	31	25	46	35	28	24	29	24	20	23	19	16	18	15	13	13	13	13	10
9	47	35	27	22	43	32	25	21	27	21	18	21	17	15	17	14	11	11	11	11	9
10	44	32	25	20	40	29	23	18	24	19	16	20	16	13	15	12	10	10	10	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4669	4669	4669
5°	4562	5397	6275
10°	4140	7869	10404
15°	3520	10284	12562
20°	2867	11920	12803
25°	2392	12477	12543
30°	2019	12559	12519
35°	1785	12354	12843
40°	1557	12086	13177
45°	1410	11891	13229
50°	1295	11717	13010
55°	1242	11459	12433
60°	1273	10961	11523
65°	1326	10201	10271
70°	1415	8902	8677
75°	1574	7265	6772
80°	1733	5045	4563
85°	1575	2681	2335

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 13229 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	195.2	0.7
10°-20°	865.3	3.0
20°-30°	1513.6	5.2
30°-40°	1948.4	6.7
40°-50°	2176.4	7.5
50°-60°	2084.4	7.2
60°-70°	1651.9	5.7
70°-80°	971.4	3.4
80°-90°	280.0	1.0
90°-100°	1299.2	4.5
100°-110°	3415.7	11.8
110°-120°	3541.7	12.2
120°-130°	2840.9	9.8
130°-140°	2229.1	7.7
140°-150°	1710.9	5.9
150°-160°	1232.1	4.3
160°-170°	753.9	2.6
170°-180°	254.7	0.9
0°-30°	2574.2	8.9
0°-40°	4522.6	15.6
0°-60°	8783.4	30.3
0°-90°	11686.8	40.3
90°-120°	8256.6	28.5
90°-150°	15037.4	51.9
90°-180°	17278.0	59.7
0°-180°	28964.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1509	1509	1509	1509	1509	
5°	1470	1577	1776	2009	2082	136
15°	1102	2034	3426	4154	4286	307
25°	704	2305	4082	4261	4266	324
35°	476	2203	3844	4062	4222	297
45°	325	1757	3397	3892	4067	252
55°	233	1116	2883	3349	3441	212
65°	184	592	2140	2407	2441	183
75°	136	364	1174	1291	1296	142
85°	49	112	291	320	325	51
90°	18	50	136	68	68	18
95°	172	672	2238	1154	785	191
105°	615	932	3776	5733	5348	652
115°	1093	1327	3025	6034	6887	1080
125°	1520	1705	2751	4649	5484	1350
135°	1812	1994	2665	3753	4256	1402
145°	2102	2236	2631	3202	3452	1317
155°	2376	2442	2631	2889	2973	1092
165°	2563	2597	2631	2735	2769	723
175°	2665	2665	2649	2683	2683	253
180°	2665	2665	2665	2665	2665	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1509.4	1509.4	1509.4	1509.4	1509.4	1509.4	1509.4	1509.4	1509.4	1509.4	1509.4
2.5°	1509.4	1509.4	1519.1	1524.0	1533.6	1538.5	1548.2	1557.9	1587.1	1591.9	1601.6
5°	1470.5	1489.9	1553.0	1577.3	1645.3	1737.5	1776.3	1839.4	1970.4	2009.3	2033.5
7.5°	1412.3	1456.0	1611.3	1650.2	1820.0	2062.7	2164.6	2300.5	2509.2	2611.1	2693.6
10°	1320.1	1412.3	1689.0	1781.1	2057.8	2426.6	2615.9	2805.2	3120.7	3261.4	3314.8
12.5°	1218.2	1368.6	1771.5	1897.7	2295.6	2834.3	3062.5	3271.1	3630.3	3819.6	3848.7
15°	1101.7	1305.5	1849.1	2033.5	2548.0	3174.1	3426.4	3683.7	4018.5	4154.5	4188.4
17.5°	999.8	1257.0	1921.9	2116.0	2742.1	3479.8	3737.1	3950.6	4222.4	4314.6	4338.9
20°	873.6	1179.3	1970.4	2222.8	2946.0	3703.1	3950.6	4115.6	4300.1	4358.3	4368.0
22.5°	781.3	1096.8	1999.6	2261.6	3081.9	3839.0	4047.7	4178.7	4304.9	4324.3	4329.2
25°	703.7	1004.7	1994.7	2305.3	3198.3	3921.5	4081.6	4178.7	4251.5	4261.2	4261.2
27.5°	631.0	902.8	1975.3	2315.0	3285.7	3940.9	4067.1	4135.0	4169.0	4188.4	4188.4
30°	567.9	805.6	1926.7	2295.6	3324.5	3921.5	4023.4	4057.4	4091.4	4120.5	4135.0
32.5°	519.3	713.5	1854.0	2256.8	3329.4	3872.9	3945.8	3965.2	4013.7	4081.6	4105.9
35°	475.6	621.2	1771.5	2203.4	3300.3	3795.3	3843.8	3863.3	3960.3	4062.2	4096.2
37.5°	431.9	553.2	1664.7	2111.2	3256.6	3703.1	3737.1	3771.0	3921.5	4042.8	4081.6
40°	388.2	495.0	1538.5	2009.3	3188.6	3591.5	3620.6	3674.0	3872.9	4013.7	4052.5
42.5°	354.3	446.5	1402.6	1902.5	3101.3	3465.3	3509.0	3586.6	3814.7	3965.2	4008.9
45°	325.1	398.0	1257.0	1756.9	2989.6	3334.2	3397.3	3504.1	3746.8	3892.4	3931.2
47.5°	296.1	364.0	1106.6	1606.5	2868.3	3203.2	3285.7	3407.0	3654.6	3795.3	3829.3
50°	271.8	330.0	956.1	1446.3	2737.3	3062.5	3159.5	3285.7	3538.1	3669.1	3712.8
52.5°	252.4	300.9	815.4	1286.1	2586.8	2916.9	3028.5	3159.5	3397.3	3523.5	3552.6
55°	233.0	276.7	694.1	1116.2	2431.5	2761.5	2882.9	3009.1	3242.0	3348.8	3368.2
57.5°	223.2	257.3	592.1	956.1	2266.5	2586.8	2722.7	2839.2	3057.6	3140.1	3159.5
60°	208.7	242.6	514.4	820.2	2086.9	2421.8	2538.3	2654.8	2839.2	2907.1	2921.7
62.5°	194.2	233.0	456.2	689.2	1902.5	2227.7	2344.1	2450.9	2606.2	2654.8	2674.2
65°	184.4	223.2	412.5	592.1	1713.2	2023.9	2140.3	2232.5	2358.7	2407.2	2417.0
67.5°	174.8	213.6	378.6	509.6	1524.0	1820.0	1907.3	1994.7	2091.8	2140.3	2145.2
70°	160.1	203.8	349.4	451.3	1329.8	1587.1	1659.8	1752.1	1829.7	1854.0	1868.5
72.5°	150.5	189.3	330.0	407.6	1130.9	1363.8	1431.7	1485.1	1553.0	1577.3	1577.3
75°	135.8	169.9	310.6	364.0	926.9	1116.2	1174.5	1227.9	1281.2	1291.0	1276.5
77.5°	121.3	150.5	266.9	305.7	723.1	883.3	931.8	961.0	1004.7	1014.3	1019.2
80°	101.9	131.1	208.7	237.9	524.2	650.4	684.3	708.6	747.4	747.4	757.2
82.5°	77.6	101.9	150.5	169.9	354.3	446.5	475.6	490.1	514.4	514.4	514.4
85°	48.6	63.1	97.0	111.7	213.6	271.8	291.2	296.1	315.5	320.4	320.4
87.5°	24.3	33.9	63.1	68.0	111.7	140.7	140.7	150.5	150.5	145.6	140.7
90°	17.9	32.2	46.6	50.1	78.7	116.8	135.9	120.8	90.6	68.0	68.0
92.5°	71.5	193.1	314.8	345.2	485.4	672.2	765.6	670.9	481.7	339.9	326.4
95°	171.7	394.3	616.9	672.5	1194.3	1890.0	2237.8	1996.9	1515.2	1153.8	1112.9
97.5°	296.9	493.3	689.7	738.8	1608.8	2768.7	3348.6	3196.4	2891.9	2663.5	2585.6
100°	393.5	571.6	749.7	794.2	1759.6	3046.7	3690.3	3701.3	3723.6	3740.4	3647.5
102.5°	475.8	642.0	808.1	849.7	1828.7	3134.2	3786.9	3980.9	4368.8	4659.8	4580.3
105°	615.4	756.1	896.8	932.0	1880.1	3144.1	3776.1	4211.0	5080.8	5733.0	5690.3
107.5°	758.5	889.7	1020.8	1053.6	1889.5	3004.1	3561.5	4168.1	5381.2	6291.1	6301.5
110°	855.0	973.5	1091.9	1121.6	1875.3	2880.1	3382.6	4060.8	5417.1	6434.3	6478.8



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	949.9	1062.8	1175.7	1203.9	1875.9	2771.8	3219.8	3913.9	5302.0	6343.1	6411.4
115°	1093.0	1197.1	1301.3	1327.3	1893.2	2647.6	3024.9	3693.5	5030.7	6033.6	6128.4
117.5°	1234.3	1328.8	1423.5	1447.1	1928.3	2569.8	2890.7	3494.1	4700.9	5606.1	5711.2
120°	1316.5	1405.6	1494.6	1516.9	1956.9	2543.6	2837.0	3388.4	4491.0	5318.0	5420.2
122.5°	1397.0	1486.9	1576.7	1599.2	1998.1	2530.0	2795.9	3292.4	4285.4	5030.1	5130.9
125°	1520.5	1602.4	1684.3	1704.7	2053.6	2518.7	2751.2	3173.0	4016.4	4649.0	4741.9
127.5°	1620.6	1703.3	1786.0	1806.6	2108.9	2512.1	2713.6	3075.7	3800.0	4343.2	4421.5
130°	1674.3	1763.3	1852.3	1874.6	2149.5	2516.0	2699.3	3021.6	3666.5	4150.0	4222.4
132.5°	1729.8	1818.8	1907.8	1930.1	2182.3	2518.6	2686.7	2975.4	3552.6	3985.5	4050.3
135°	1812.0	1893.1	1974.2	1994.5	2218.1	2516.3	2665.3	2907.0	3390.4	3752.9	3808.7
137.5°	1896.1	1976.4	2056.7	2076.8	2271.7	2531.7	2661.7	2866.0	3274.7	3581.2	3626.9
140°	1965.9	2039.8	2113.8	2132.3	2304.5	2534.3	2649.2	2825.6	3178.7	3443.4	3486.1
142.5°	2019.6	2087.9	2156.3	2173.4	2332.0	2543.4	2649.2	2804.2	3114.3	3346.9	3383.7
145°	2101.9	2161.5	2221.1	2236.0	2367.7	2543.4	2631.3	2758.1	3011.7	3201.9	3229.8
147.5°	2184.1	2242.1	2300.1	2314.7	2420.2	2560.9	2631.3	2731.1	2930.6	3080.3	3103.4
150°	2237.8	2290.3	2342.8	2355.9	2447.6	2570.1	2631.3	2715.6	2884.2	3010.5	3029.2
152.5°	2293.3	2333.0	2372.7	2382.6	2465.5	2576.0	2631.3	2703.3	2847.2	2955.1	2969.2
155°	2375.6	2405.0	2434.4	2441.7	2504.9	2589.1	2631.3	2688.6	2803.1	2888.9	2898.3
157.5°	2436.4	2465.0	2493.5	2500.7	2544.2	2602.2	2631.3	2675.8	2764.8	2831.7	2838.3
160°	2477.5	2499.7	2522.0	2527.6	2562.2	2608.3	2631.3	2669.4	2745.7	2803.0	2806.8
162.5°	2518.6	2535.3	2551.9	2556.2	2581.2	2614.6	2631.3	2663.5	2727.9	2776.2	2779.8
165°	2563.3	2578.4	2593.5	2597.4	2608.6	2623.7	2631.3	2654.3	2700.4	2735.0	2738.8
167.5°	2604.5	2611.7	2618.8	2620.6	2630.1	2642.9	2649.2	2664.3	2694.5	2717.1	2718.8
170°	2631.3	2638.5	2645.6	2647.5	2648.0	2648.8	2649.2	2664.3	2694.5	2717.1	2717.1
172.5°	2645.6	2647.2	2648.8	2649.2	2649.2	2649.2	2649.2	2661.1	2685.0	2702.9	2701.5
175°	2665.3	2665.3	2665.3	2665.3	2660.0	2652.8	2649.2	2656.7	2671.8	2683.2	2683.2
177.5°	2665.3	2665.3	2665.3	2665.3	2661.1	2655.6	2652.8	2658.7	2670.7	2679.6	2677.9
180°	2665.3	2665.3	2665.3	2665.3	2665.3	2665.3	2665.3	2665.3	2665.3	2665.3	2665.3



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1509.4	1509.4
2.5°	1611.3	1601.6
5°	2072.4	2082.1
7.5°	2790.7	2785.8
10°	3470.1	3513.8
12.5°	3965.2	3974.9
15°	4266.1	4285.5
17.5°	4382.6	4387.4
20°	4387.4	4377.7
22.5°	4334.0	4324.3
25°	4270.9	4266.1
27.5°	4212.7	4217.6
30°	4188.4	4203.0
32.5°	4188.4	4212.7
35°	4198.1	4222.4
37.5°	4193.3	4222.4
40°	4173.9	4207.8
42.5°	4120.5	4144.7
45°	4038.0	4067.1
47.5°	3931.2	3950.6
50°	3795.3	3814.7
52.5°	3625.4	3630.3
55°	3421.6	3441.0
57.5°	3203.2	3208.0
60°	2960.5	2975.1
62.5°	2703.3	2703.3
65°	2431.5	2441.2
67.5°	2150.0	2174.3
70°	1863.7	1868.5
72.5°	1582.2	1582.2
75°	1291.0	1295.9
77.5°	1014.3	1014.3
80°	752.3	757.2
82.5°	519.3	529.1
85°	325.1	325.1
87.5°	150.5	135.8
90°	68.0	68.0
92.5°	272.3	218.3
95°	949.0	785.3
97.5°	2273.9	1962.3
100°	3276.3	2905.0
102.5°	4262.3	3944.3
105°	5519.5	5348.5
107.5°	6342.9	6384.2
110°	6656.9	6835.0



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	6684.9	6958.4
115°	6507.6	6886.8
117.5°	6131.8	6552.3
120°	5828.8	6237.5
122.5°	5534.0	5937.0
125°	5113.2	5484.5
127.5°	4734.8	5048.0
130°	4511.7	4801.1
132.5°	4309.4	4568.5
135°	4032.1	4255.5
137.5°	3809.8	3992.5
140°	3657.1	3828.0
142.5°	3530.7	3677.7
145°	3341.1	3452.4
147.5°	3195.6	3287.8
150°	3103.9	3178.7
152.5°	3025.6	3082.0
155°	2935.6	2973.0
157.5°	2864.5	2890.7
160°	2821.9	2837.0
162.5°	2794.1	2808.4
165°	2753.9	2769.1
167.5°	2725.1	2731.5
170°	2717.1	2717.1
172.5°	2695.9	2690.4
175°	2683.2	2683.2
177.5°	2671.6	2665.3
180°	2665.3	2665.3



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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	5.41	6.22	6.44	7.26	8.66	18.60	19.41	19.63	20.45	21.85
	3H	6.11	6.84	7.15	7.89	9.31	20.44	21.17	21.48	22.22	23.64
	4H	6.41	7.10	7.46	8.15	9.58	21.09	21.78	22.14	22.83	24.26
	6H	6.66	7.29	7.72	8.35	9.79	21.52	22.16	22.58	23.21	24.65
	8H	6.72	7.33	7.79	8.40	9.83	21.64	22.25	22.71	23.32	24.76
	12H	6.74	7.31	7.81	8.38	9.84	21.71	22.29	22.78	23.36	24.81
4H	2H	12.63	13.32	13.69	14.37	15.80	18.87	19.56	19.93	20.61	22.04
	3H	14.19	14.77	15.26	15.85	17.29	20.92	21.49	21.98	22.57	24.01
	4H	14.28	14.81	15.36	15.88	17.34	21.69	22.22	22.76	23.29	24.75
	6H	14.29	14.75	15.37	15.84	17.30	22.23	22.68	23.31	23.78	25.23
	8H	14.27	14.69	15.35	15.78	17.25	22.39	22.82	23.47	23.90	25.37
	12H	14.22	14.61	15.32	15.71	17.18	22.48	22.87	23.58	23.97	25.45
8H	4H	15.73	16.15	16.81	17.24	18.71	21.74	22.17	22.82	23.25	24.72
	6H	15.97	16.32	17.07	17.45	18.92	22.37	22.73	23.48	23.85	25.32
	8H	15.98	16.29	17.10	17.40	18.89	22.59	22.90	23.71	24.01	25.50
	12H	15.95	16.22	17.07	17.33	18.85	22.74	23.01	23.86	24.12	25.64
12H	4H	15.87	16.26	16.97	17.35	18.83	21.69	22.08	22.79	23.18	24.65
	6H	16.23	16.54	17.34	17.65	19.13	22.35	22.67	23.47	23.77	25.26
	8H	16.29	16.57	17.41	17.67	19.20	22.58	22.86	23.70	23.96	25.49