

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: P938573

Luminaire Tested: SQ4-FB-150U-125D-940-1D-UNV-STD-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938573
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-940-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

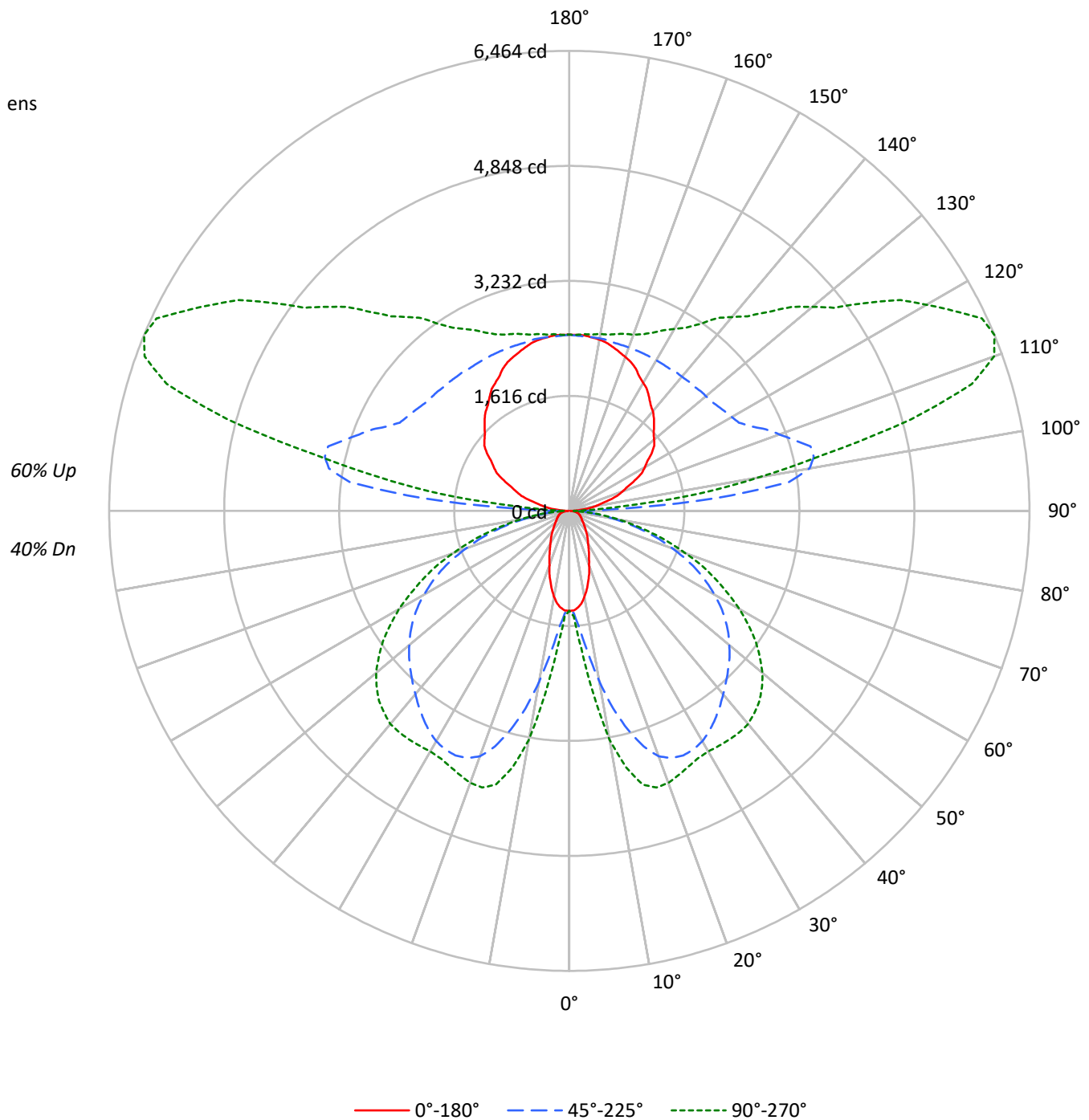
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 26904.6 lumens
Efficiency: N/A
Efficacy: 107.8 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

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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°	4337	4337	4337
5°	4238	5014	5829
10°	3846	7310	9663
15°	3270	9552	11669
20°	2663	11072	11892
25°	2222	11590	11650
30°	1875	11666	11628
35°	1659	11475	11929
40°	1446	11226	12240
45°	1310	11046	12288
50°	1203	10883	12085
55°	1153	10645	11549
60°	1182	10181	10703
65°	1232	9476	9541
70°	1315	8269	8060
75°	1463	6749	6290
80°	1611	4686	4239
85°	1461	2491	2169

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 12288 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	181.4	0.7
10°-20°	803.8	3.0
20°-30°	1405.9	5.2
30°-40°	1809.9	6.7
40°-50°	2021.6	7.5
50°-60°	1936.2	7.2
60°-70°	1534.4	5.7
70°-80°	902.3	3.4
80°-90°	260.1	1.0
90°-100°	1206.8	4.5
100°-110°	3172.7	11.8
110°-120°	3289.8	12.2
120°-130°	2638.8	9.8
130°-140°	2070.5	7.7
140°-150°	1589.2	5.9
150°-160°	1144.5	4.3
160°-170°	700.3	2.6
170°-180°	236.6	0.9
0°-30°	2391.1	8.9
0°-40°	4200.9	15.6
0°-60°	8158.7	30.3
0°-90°	10855.5	40.3
90°-120°	7669.3	28.5
90°-150°	13967.8	51.9
90°-180°	16049.0	59.7
0°-180°	26904.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1402	1402	1402	1402	1402	
5°	1366	1465	1650	1866	1934	126
15°	1023	1889	3183	3859	3981	285
25°	654	2141	3791	3958	3963	301
35°	442	2047	3570	3773	3922	276
45°	302	1632	3156	3616	3778	234
55°	216	1037	2678	3111	3196	197
65°	171	550	1988	2236	2268	170
75°	126	338	1091	1199	1204	132
85°	45	104	270	298	302	48
90°	17	46	126	63	63	17
95°	160	625	2079	1072	729	177
105°	572	866	3508	5325	4968	606
115°	1015	1233	2810	5604	6397	1003
125°	1412	1584	2556	4318	5094	1254
135°	1683	1853	2476	3486	3953	1302
145°	1952	2077	2444	2974	3207	1223
155°	2207	2268	2444	2683	2762	1014
165°	2381	2413	2444	2540	2572	672
175°	2476	2476	2461	2492	2492	235
180°	2476	2476	2476	2476	2476	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1402.1	1402.1	1402.1	1402.1	1402.1	1402.1	1402.1	1402.1	1402.1	1402.1	1402.1
2.5°	1402.1	1402.1	1411.0	1415.6	1424.5	1429.1	1438.1	1447.1	1474.2	1478.7	1487.7
5°	1365.9	1383.9	1442.6	1465.1	1528.2	1613.9	1650.0	1708.6	1830.3	1866.4	1888.9
7.5°	1311.8	1352.4	1496.7	1532.8	1690.6	1915.9	2010.6	2136.9	2330.7	2425.4	2502.0
10°	1226.2	1311.8	1568.8	1654.4	1911.4	2254.0	2429.8	2605.7	2898.7	3029.4	3079.1
12.5°	1131.6	1271.3	1645.5	1762.7	2132.4	2632.7	2844.6	3038.5	3372.1	3547.9	3574.9
15°	1023.3	1212.7	1717.6	1888.9	2366.8	2948.3	3182.7	3421.6	3732.7	3859.0	3890.5
17.5°	928.7	1167.6	1785.2	1965.5	2547.1	3232.3	3471.3	3669.6	3922.0	4007.7	4030.3
20°	811.5	1095.4	1830.3	2064.7	2736.5	3439.7	3669.6	3822.8	3994.2	4048.3	4057.3
22.5°	725.8	1018.8	1857.3	2100.7	2862.6	3565.9	3759.8	3881.4	3998.7	4016.7	4021.2
25°	653.7	933.2	1852.8	2141.3	2970.8	3642.6	3791.3	3881.4	3949.1	3958.1	3958.1
27.5°	586.1	838.5	1834.8	2150.4	3052.0	3660.6	3777.8	3840.9	3872.5	3890.5	3890.5
30°	527.5	748.3	1789.7	2132.4	3088.0	3642.6	3737.2	3768.8	3800.4	3827.4	3840.9
32.5°	482.4	662.7	1722.1	2096.3	3092.5	3597.5	3665.1	3683.2	3728.2	3791.3	3813.9
35°	441.8	577.0	1645.5	2046.7	3065.6	3525.4	3570.4	3588.5	3678.6	3773.3	3804.8
37.5°	401.2	513.9	1546.3	1961.1	3025.0	3439.7	3471.3	3502.8	3642.6	3755.3	3791.3
40°	360.6	459.8	1429.1	1866.4	2961.8	3336.0	3363.0	3412.7	3597.5	3728.2	3764.2
42.5°	329.1	414.8	1302.9	1767.2	2880.7	3218.8	3259.4	3331.5	3543.4	3683.2	3723.7
45°	302.0	369.7	1167.6	1632.0	2777.0	3097.1	3155.7	3254.9	3480.2	3615.5	3651.5
47.5°	275.0	338.2	1027.9	1492.2	2664.3	2975.3	3052.0	3164.7	3394.6	3525.4	3556.9
50°	252.5	306.5	888.1	1343.5	2542.6	2844.6	2934.8	3052.0	3286.4	3408.1	3448.7
52.5°	234.4	279.5	757.4	1194.6	2402.8	2709.4	2813.1	2934.8	3155.7	3272.9	3299.9
55°	216.4	257.0	644.7	1036.8	2258.5	2565.1	2677.9	2795.1	3011.4	3110.6	3128.6
57.5°	207.3	239.0	550.0	888.1	2105.3	2402.8	2529.0	2637.3	2840.1	2916.7	2934.8
60°	193.9	225.4	477.8	761.9	1938.5	2249.6	2357.7	2466.0	2637.3	2700.3	2713.9
62.5°	180.4	216.4	423.8	640.2	1767.2	2069.2	2177.4	2276.6	2420.9	2466.0	2484.0
65°	171.3	207.3	383.2	550.0	1591.4	1879.9	1988.1	2073.7	2191.0	2236.0	2245.0
67.5°	162.3	198.4	351.6	473.4	1415.6	1690.6	1771.6	1852.8	1943.0	1988.1	1992.6
70°	148.7	189.3	324.6	419.2	1235.2	1474.2	1541.7	1627.4	1699.5	1722.1	1735.6
72.5°	139.8	175.8	306.5	378.6	1050.4	1266.8	1329.9	1379.5	1442.6	1465.1	1465.1
75°	126.2	157.8	288.5	338.2	861.0	1036.8	1091.0	1140.5	1190.1	1199.2	1185.7
77.5°	112.7	139.8	247.9	284.0	671.7	820.5	865.5	892.6	933.2	942.2	946.7
80°	94.7	121.7	193.9	220.9	486.9	604.1	635.6	658.2	694.2	694.2	703.3
82.5°	72.1	94.7	139.8	157.8	329.1	414.8	441.8	455.3	477.8	477.8	477.8
85°	45.1	58.6	90.1	103.7	198.4	252.5	270.5	275.0	293.0	297.6	297.6
87.5°	22.6	31.5	58.6	63.1	103.7	130.7	130.7	139.8	139.8	135.2	130.7
90°	16.6	29.9	43.2	46.5	73.1	108.5	126.3	112.2	84.2	63.1	63.1
92.5°	66.4	179.4	292.4	320.7	450.8	624.4	711.1	623.2	447.5	315.7	303.2
95°	159.5	366.2	573.0	624.7	1109.4	1755.6	2078.6	1854.9	1407.4	1071.7	1033.7
97.5°	275.8	458.2	640.6	686.2	1494.3	2571.7	3110.4	2969.0	2686.2	2474.1	2401.7
100°	365.5	530.9	696.4	737.8	1634.5	2830.0	3427.8	3438.1	3458.8	3474.3	3388.1
102.5°	442.0	596.3	750.6	789.3	1698.7	2911.2	3517.5	3697.7	4058.1	4328.4	4254.5
105°	571.6	702.3	833.0	865.7	1746.3	2920.5	3507.5	3911.5	4719.4	5325.2	5285.6
107.5°	704.5	826.4	948.2	978.7	1755.1	2790.5	3308.2	3871.6	4998.5	5843.7	5853.3
110°	794.2	904.3	1014.3	1041.8	1741.9	2675.3	3142.0	3772.0	5031.8	5976.6	6018.0



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	882.3	987.2	1092.1	1118.3	1742.4	2574.7	2990.8	3635.5	4924.8	5891.9	5955.4
115°	1015.3	1112.0	1208.7	1232.9	1758.5	2459.3	2809.7	3430.8	4672.8	5604.4	5692.5
117.5°	1146.5	1234.3	1322.2	1344.2	1791.1	2387.0	2685.0	3245.6	4366.6	5207.3	5305.0
120°	1222.9	1305.6	1388.3	1409.0	1817.7	2362.7	2635.2	3147.3	4171.6	4939.8	5034.7
122.5°	1297.6	1381.1	1464.6	1485.4	1856.0	2350.0	2597.0	3058.2	3980.5	4672.3	4765.9
125°	1412.4	1488.4	1564.5	1583.5	1907.5	2339.5	2555.5	2947.3	3730.8	4318.3	4404.6
127.5°	1505.3	1582.1	1659.0	1678.1	1958.9	2333.4	2520.6	2857.0	3529.7	4034.3	4107.0
130°	1555.2	1637.9	1720.6	1741.3	1996.6	2337.0	2507.3	2806.7	3405.7	3854.8	3922.0
132.5°	1606.7	1689.4	1772.1	1792.8	2027.0	2339.4	2495.6	2763.7	3299.9	3702.0	3762.2
135°	1683.1	1758.4	1833.8	1852.6	2060.3	2337.3	2475.7	2700.2	3149.2	3485.9	3537.8
137.5°	1761.3	1835.9	1910.4	1929.1	2110.2	2351.6	2472.4	2662.1	3041.8	3326.4	3368.9
140°	1826.1	1894.7	1963.5	1980.6	2140.6	2354.0	2460.7	2624.7	2952.6	3198.5	3238.2
142.5°	1875.9	1939.4	2002.9	2018.8	2166.1	2362.5	2460.7	2604.8	2892.7	3108.8	3143.0
145°	1952.4	2007.8	2063.1	2076.9	2199.3	2362.5	2444.1	2561.9	2797.5	2974.2	3000.0
147.5°	2028.7	2082.6	2136.5	2150.0	2248.1	2378.8	2444.1	2536.8	2722.2	2861.2	2882.6
150°	2078.6	2127.4	2176.1	2188.3	2273.5	2387.3	2444.1	2522.5	2679.0	2796.4	2813.7
152.5°	2130.1	2167.1	2203.9	2213.2	2290.2	2392.8	2444.1	2511.0	2644.6	2744.9	2758.0
155°	2206.6	2233.9	2261.2	2268.0	2326.7	2405.0	2444.1	2497.3	2603.7	2683.4	2692.1
157.5°	2263.1	2289.6	2316.2	2322.8	2363.2	2417.1	2444.1	2485.5	2568.2	2630.3	2636.4
160°	2301.3	2321.9	2342.6	2347.8	2379.9	2422.7	2444.1	2479.6	2550.4	2603.6	2607.2
162.5°	2339.4	2355.0	2370.4	2374.3	2397.6	2428.6	2444.1	2474.1	2533.9	2578.8	2582.0
165°	2381.0	2395.0	2409.1	2412.6	2423.1	2437.1	2444.1	2465.5	2508.3	2540.5	2544.0
167.5°	2419.3	2425.9	2432.5	2434.2	2443.1	2454.9	2460.7	2474.8	2502.8	2523.9	2525.4
170°	2444.1	2450.8	2457.5	2459.1	2459.7	2460.4	2460.7	2474.8	2502.8	2523.9	2523.9
172.5°	2457.5	2458.9	2460.4	2460.7	2460.7	2460.7	2460.7	2471.8	2494.0	2510.6	2509.3
175°	2475.7	2475.7	2475.7	2475.7	2470.8	2464.1	2460.7	2467.8	2481.8	2492.3	2492.3
177.5°	2475.7	2475.7	2475.7	2475.7	2471.8	2466.7	2464.1	2469.6	2480.7	2489.0	2487.5
180°	2475.7	2475.7	2475.7	2475.7	2475.7	2475.7	2475.7	2475.7	2475.7	2475.7	2475.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1402.1	1402.1
2.5°	1496.7	1487.7
5°	1925.0	1934.0
7.5°	2592.2	2587.6
10°	3223.3	3263.8
12.5°	3683.2	3692.1
15°	3962.6	3980.6
17.5°	4070.9	4075.3
20°	4075.3	4066.3
22.5°	4025.7	4016.7
25°	3967.1	3962.6
27.5°	3913.1	3917.6
30°	3890.5	3904.0
32.5°	3890.5	3913.1
35°	3899.5	3922.0
37.5°	3895.0	3922.0
40°	3877.0	3908.5
42.5°	3827.4	3849.9
45°	3750.7	3777.8
47.5°	3651.5	3669.6
50°	3525.4	3543.4
52.5°	3367.6	3372.1
55°	3178.2	3196.3
57.5°	2975.3	2979.9
60°	2750.0	2763.5
62.5°	2511.0	2511.0
65°	2258.5	2267.6
67.5°	1997.1	2019.7
70°	1731.2	1735.6
72.5°	1469.6	1469.6
75°	1199.2	1203.7
77.5°	942.2	942.2
80°	698.8	703.3
82.5°	482.4	491.4
85°	302.0	302.0
87.5°	139.8	126.2
90°	63.1	63.1
92.5°	252.9	202.7
95°	881.5	729.4
97.5°	2112.2	1822.7
100°	3043.3	2698.4
102.5°	3959.1	3663.7
105°	5126.9	4968.1
107.5°	5891.7	5930.1
110°	6183.4	6348.8



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	6209.4	6463.5
115°	6044.7	6397.0
117.5°	5695.6	6086.3
120°	5414.2	5793.8
122.5°	5140.4	5514.7
125°	4749.5	5094.4
127.5°	4398.0	4688.9
130°	4190.8	4459.6
132.5°	4002.8	4243.6
135°	3745.3	3952.8
137.5°	3538.8	3708.6
140°	3397.0	3555.7
142.5°	3279.6	3416.1
145°	3103.5	3206.8
147.5°	2968.3	3053.9
150°	2883.2	2952.6
152.5°	2810.4	2862.8
155°	2726.8	2761.5
157.5°	2660.7	2685.0
160°	2621.2	2635.2
162.5°	2595.4	2608.7
165°	2558.1	2572.1
167.5°	2531.2	2537.2
170°	2523.9	2523.9
172.5°	2504.2	2499.0
175°	2492.3	2492.3
177.5°	2481.6	2475.7
180°	2475.7	2475.7



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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	5.16	5.97	6.18	7.01	8.41	18.35	19.16	19.38	20.20	21.60
	3H	5.86	6.58	6.90	7.63	9.05	20.19	20.92	21.23	21.97	23.38
	4H	6.15	6.84	7.20	7.89	9.32	20.83	21.52	21.89	22.58	24.00
	6H	6.40	7.04	7.46	8.09	9.53	21.27	21.90	22.33	22.96	24.40
	8H	6.47	7.07	7.53	8.14	9.58	21.39	21.99	22.45	23.07	24.50
	12H	6.48	7.06	7.55	8.12	9.58	21.46	22.03	22.53	23.10	24.56
4H	2H	12.37	13.06	13.43	14.11	15.54	18.61	19.30	19.67	20.36	21.78
	3H	13.93	14.51	15.00	15.59	17.03	20.66	21.24	21.73	22.32	23.76
	4H	14.03	14.56	15.10	15.63	17.09	21.43	21.96	22.50	23.03	24.49
	6H	14.03	14.49	15.12	15.58	17.04	21.97	22.43	23.05	23.52	24.97
	8H	14.01	14.44	15.09	15.52	16.99	22.13	22.56	23.21	23.65	25.12
	12H	13.96	14.35	15.06	15.45	16.93	22.23	22.61	23.33	23.71	25.19
8H	4H	15.47	15.90	16.55	16.98	18.45	21.48	21.91	22.57	23.00	24.47
	6H	15.71	16.06	16.81	17.19	18.66	22.12	22.47	23.22	23.60	25.06
	8H	15.73	16.04	16.84	17.15	18.64	22.34	22.65	23.45	23.76	25.25
	12H	15.69	15.97	16.81	17.07	18.60	22.48	22.76	23.60	23.86	25.39
12H	4H	15.61	16.00	16.71	17.10	18.58	21.43	21.82	22.53	22.92	24.40
	6H	15.97	16.28	17.08	17.39	18.88	22.10	22.41	23.21	23.52	25.01
	8H	16.04	16.31	17.15	17.42	18.94	22.33	22.60	23.44	23.71	25.23