

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: P938473

Luminaire Tested: SQ4-FB-150U-100D-940-1D-UNV-STD-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938473
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-940-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

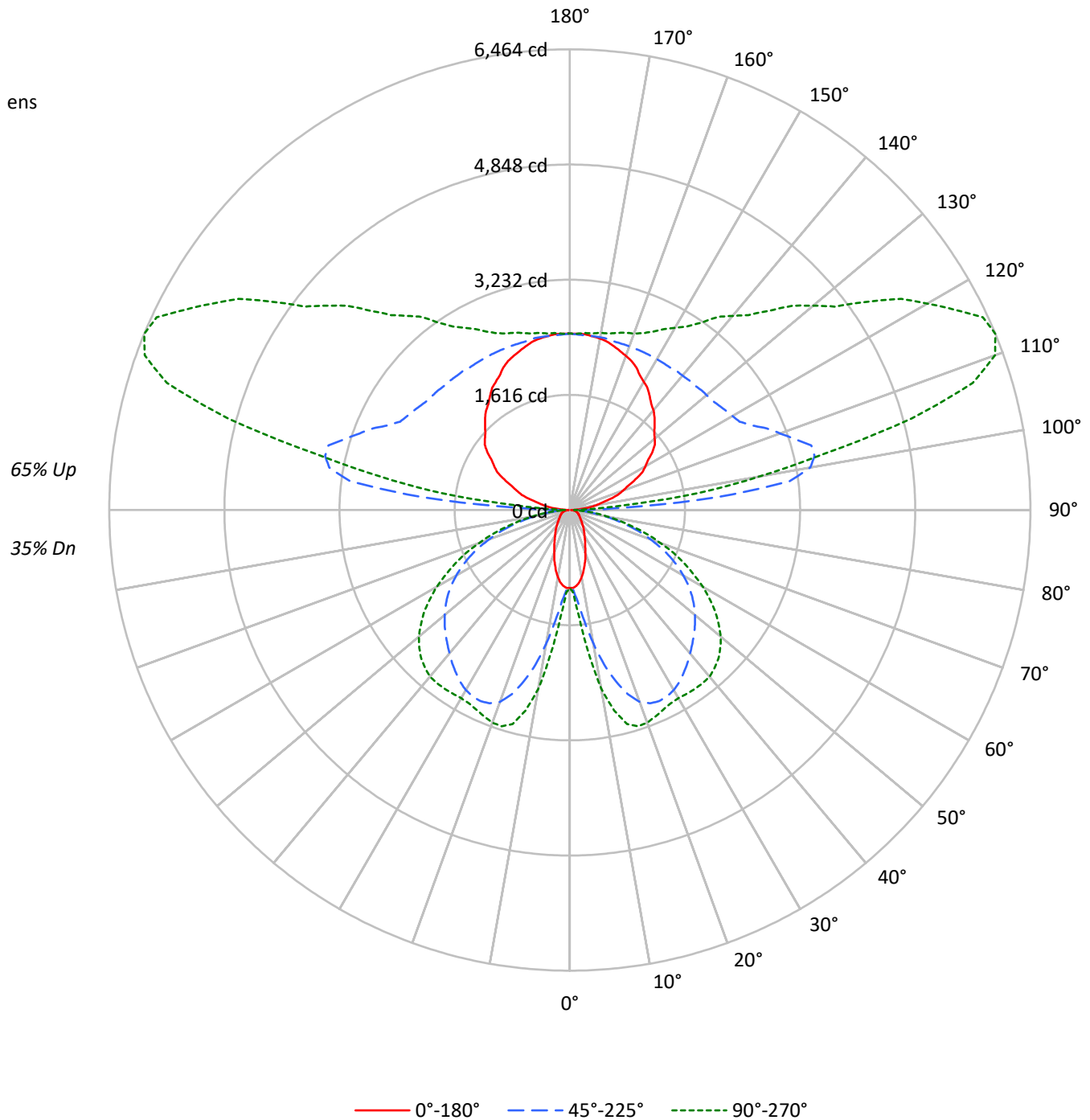
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24526.5 lumens
Efficiency: N/A
Efficacy: 112.9 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 (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				
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°	3386	3386	3386
5°	3309	3914	4551
10°	3003	5707	7545
15°	2553	7458	9110
20°	2079	8645	9285
25°	1735	9049	9096
30°	1464	9108	9079
35°	1295	8959	9314
40°	1129	8765	9556
45°	1023	8624	9594
50°	939	8497	9435
55°	901	8310	9017
60°	923	7949	8356
65°	961	7398	7449
70°	1027	6457	6293
75°	1143	5269	4911
80°	1257	3659	3309
85°	1141	1945	1694

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9594 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.6	0.6
10°-20°	627.5	2.6
20°-30°	1097.7	4.5
30°-40°	1413.0	5.8
40°-50°	1578.3	6.4
50°-60°	1511.7	6.2
60°-70°	1198.0	4.9
70°-80°	704.5	2.9
80°-90°	205.1	0.8
90°-100°	1206.8	4.9
100°-110°	3172.7	12.9
110°-120°	3289.8	13.4
120°-130°	2638.8	10.8
130°-140°	2070.5	8.4
140°-150°	1589.2	6.5
150°-160°	1144.5	4.7
160°-170°	700.3	2.9
170°-180°	236.6	1.0
0°-30°	1866.8	7.6
0°-40°	3279.9	13.4
0°-60°	6369.8	26.0
0°-90°	8477.4	34.6
90°-120°	7669.3	31.3
90°-150°	13967.8	56.9
90°-180°	16049.0	65.4
0°-180°	24526.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1095	1095	1095	1095	1095	
5°	1066	1144	1288	1457	1510	98
15°	799	1475	2485	3013	3108	222
25°	510	1672	2960	3090	3094	235
35°	345	1598	2788	2946	3062	215
45°	236	1274	2464	2823	2950	182
55°	169	810	2091	2429	2496	154
65°	134	429	1552	1746	1770	133
75°	99	264	852	936	940	103
85°	35	81	211	232	236	37
90°	17	46	126	63	63	16
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°	1094.6	1094.6	1094.6	1094.6	1094.6	1094.6	1094.6	1094.6	1094.6	1094.6	1094.6
2.5°	1094.6	1094.6	1101.7	1105.2	1112.2	1115.8	1122.8	1129.8	1150.9	1154.5	1161.5
5°	1066.5	1080.5	1126.3	1143.9	1193.2	1260.1	1288.2	1334.0	1429.0	1457.1	1474.7
7.5°	1024.2	1055.9	1168.5	1196.7	1319.8	1495.8	1569.8	1668.3	1819.7	1893.6	1953.4
10°	957.4	1024.2	1224.8	1291.7	1492.4	1759.8	1897.1	2034.4	2263.2	2365.2	2403.9
12.5°	883.5	992.5	1284.7	1376.2	1664.8	2055.5	2220.9	2372.3	2632.7	2770.0	2791.1
15°	798.9	946.8	1341.0	1474.7	1847.8	2301.9	2484.9	2671.5	2914.3	3012.8	3037.5
17.5°	725.1	911.6	1393.8	1534.6	1988.6	2523.6	2710.2	2865.0	3062.1	3129.0	3146.6
20°	633.5	855.3	1429.0	1612.0	2136.4	2685.5	2865.0	2984.7	3118.4	3160.7	3167.7
22.5°	566.6	795.5	1450.1	1640.1	2235.0	2784.1	2935.4	3030.5	3121.9	3136.1	3139.5
25°	510.3	728.6	1446.6	1671.8	2319.5	2843.9	2960.1	3030.5	3083.2	3090.2	3090.2
27.5°	457.6	654.6	1432.5	1678.9	2382.9	2857.9	2949.5	2998.8	3023.4	3037.5	3037.5
30°	411.8	584.3	1397.3	1664.8	2411.0	2843.9	2917.8	2942.5	2967.1	2988.2	2998.8
32.5°	376.6	517.3	1344.5	1636.7	2414.5	2808.7	2861.5	2875.6	2910.8	2960.1	2977.6
35°	344.9	450.5	1284.7	1598.0	2393.3	2752.4	2787.6	2801.6	2872.1	2945.9	2970.6
37.5°	313.3	401.3	1207.2	1531.1	2361.7	2685.5	2710.2	2734.8	2843.9	2931.9	2960.1
40°	281.6	359.0	1115.8	1457.1	2312.4	2604.6	2625.6	2664.4	2808.7	2910.8	2938.9
42.5°	256.9	323.9	1017.2	1379.7	2249.0	2513.0	2544.7	2601.0	2766.5	2875.6	2907.2
45°	235.9	288.6	911.6	1274.1	2168.1	2418.0	2463.8	2541.2	2717.2	2822.8	2850.9
47.5°	214.7	264.0	802.5	1165.1	2080.1	2323.0	2382.9	2470.8	2650.3	2752.4	2777.0
50°	197.1	239.3	693.4	1048.9	1985.1	2220.9	2291.3	2382.9	2565.9	2660.9	2692.6
52.5°	183.0	218.2	591.3	932.8	1876.0	2115.3	2196.3	2291.3	2463.8	2555.3	2576.4
55°	169.0	200.6	503.3	809.5	1763.4	2002.7	2090.7	2182.2	2351.2	2428.6	2442.6
57.5°	161.9	186.6	429.4	693.4	1643.7	1876.0	1974.6	2059.0	2217.4	2277.2	2291.3
60°	151.3	176.0	373.0	594.8	1513.4	1756.3	1840.8	1925.3	2059.0	2108.3	2118.9
62.5°	140.7	169.0	330.9	499.8	1379.7	1615.5	1700.0	1777.4	1890.1	1925.3	1939.3
65°	133.7	161.9	299.2	429.4	1242.5	1467.7	1552.1	1619.1	1710.6	1745.7	1752.8
67.5°	126.7	154.9	274.6	369.6	1105.2	1319.8	1383.2	1446.6	1517.0	1552.1	1555.7
70°	116.2	147.9	253.4	327.3	964.4	1150.9	1203.8	1270.6	1326.9	1344.5	1355.1
72.5°	109.1	137.3	239.3	295.6	820.1	989.1	1038.3	1077.1	1126.3	1143.9	1143.9
75°	98.6	123.2	225.3	264.0	672.2	809.5	851.8	890.5	929.2	936.2	925.7
77.5°	88.0	109.1	193.6	221.7	524.5	640.6	675.8	696.9	728.6	735.6	739.2
80°	73.9	95.0	151.3	172.4	380.2	471.6	496.3	513.9	542.0	542.0	549.1
82.5°	56.3	73.9	109.1	123.2	256.9	323.9	344.9	355.5	373.0	373.0	373.0
85°	35.2	45.7	70.4	81.0	154.9	197.1	211.2	214.7	228.7	232.3	232.3
87.5°	17.6	24.6	45.7	49.3	81.0	102.0	102.0	109.1	109.1	105.6	102.0
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°	1094.6	1094.6
2.5°	1168.5	1161.5
5°	1502.9	1510.0
7.5°	2023.8	2020.3
10°	2516.6	2548.2
12.5°	2875.6	2882.6
15°	3093.8	3107.9
17.5°	3178.2	3181.8
20°	3181.8	3174.8
22.5°	3143.1	3136.1
25°	3097.3	3093.8
27.5°	3055.1	3058.6
30°	3037.5	3048.1
32.5°	3037.5	3055.1
35°	3044.5	3062.1
37.5°	3041.0	3062.1
40°	3026.9	3051.5
42.5°	2988.2	3005.8
45°	2928.4	2949.5
47.5°	2850.9	2865.0
50°	2752.4	2766.5
52.5°	2629.2	2632.7
55°	2481.3	2495.5
57.5°	2323.0	2326.5
60°	2147.0	2157.6
62.5°	1960.4	1960.4
65°	1763.4	1770.4
67.5°	1559.2	1576.8
70°	1351.5	1355.1
72.5°	1147.4	1147.4
75°	936.2	939.8
77.5°	735.6	735.6
80°	545.6	549.1
82.5°	376.6	383.6
85°	235.9	235.9
87.5°	109.1	98.6
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	3.64	4.40	4.71	5.48	6.95	16.83	17.59	17.90	18.67	20.14
	3H	4.34	5.02	5.42	6.11	7.60	18.67	19.35	19.75	20.44	21.93
	4H	4.63	5.28	5.72	6.37	7.87	19.31	19.96	20.41	21.05	22.55
	6H	4.88	5.47	5.98	6.57	8.07	19.74	20.34	20.84	21.43	22.94
	8H	4.94	5.51	6.05	6.62	8.12	19.86	20.43	20.97	21.54	23.04
	12H	4.95	5.50	6.07	6.60	8.12	19.93	20.47	21.04	21.57	23.10
4H	2H	10.85	11.50	11.95	12.59	14.08	17.09	17.74	18.19	18.83	20.33
	3H	12.41	12.95	13.52	14.07	15.58	19.13	19.68	20.24	20.79	22.30
	4H	12.50	13.00	13.61	14.10	15.63	19.90	20.40	21.01	21.50	23.03
	6H	12.50	12.93	13.62	14.06	15.58	20.44	20.87	21.56	21.99	23.52
	8H	12.48	12.88	13.60	14.00	15.54	20.60	21.00	21.72	22.12	23.66
	12H	12.43	12.79	13.56	13.92	15.47	20.69	21.05	21.83	22.19	23.73
8H	4H	13.94	14.34	15.06	15.46	17.00	19.95	20.35	21.07	21.47	23.01
	6H	14.17	14.51	15.32	15.67	17.20	20.58	20.91	21.72	22.07	23.61
	8H	14.19	14.48	15.34	15.62	17.18	20.80	21.09	21.95	22.23	23.79
	12H	14.15	14.41	15.31	15.55	17.14	20.94	21.20	22.10	22.34	23.93
12H	4H	14.08	14.44	15.21	15.57	17.12	19.90	20.26	21.04	21.39	22.94
	6H	14.43	14.72	15.58	15.87	17.42	20.56	20.85	21.71	21.99	23.55
	8H	14.50	14.75	15.65	15.89	17.48	20.79	21.05	21.94	22.18	23.78