

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: P938427

Luminaire Tested: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-12-3500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938427
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-92765-1D-UNV-STD-W-12-3500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

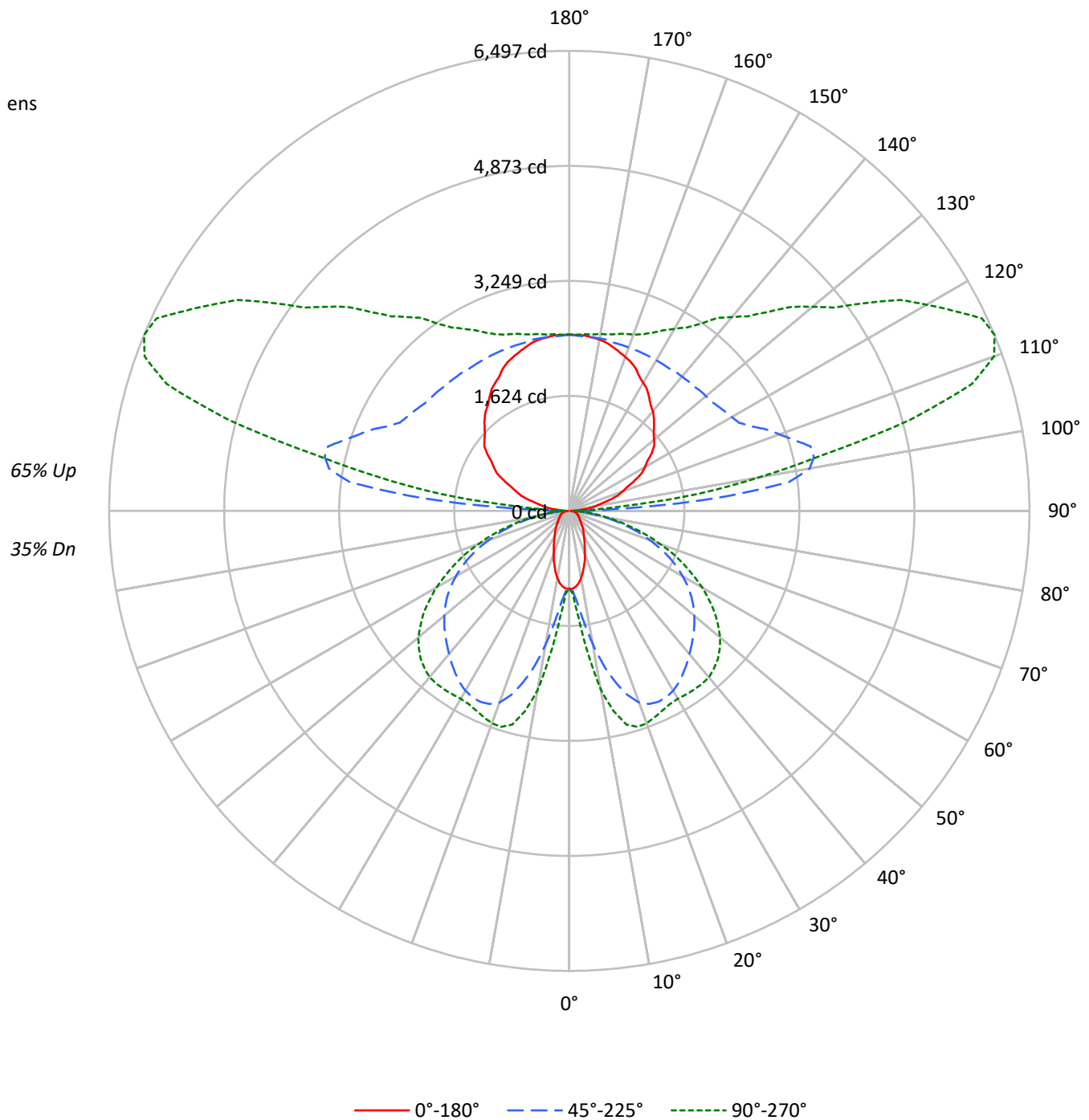
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24654.2 lumens
Efficiency: N/A
Efficacy: 113.5 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°	3403	3403	3403
5°	3326	3935	4575
10°	3018	5737	7584
15°	2566	7497	9158
20°	2090	8690	9333
25°	1744	9096	9143
30°	1471	9155	9126
35°	1302	9006	9362
40°	1135	8811	9606
45°	1029	8669	9644
50°	944	8541	9484
55°	905	8354	9063
60°	928	7991	8400
65°	966	7436	7488
70°	1033	6490	6325
75°	1149	5296	4937
80°	1264	3678	3326
85°	1144	1955	1703

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9644 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.3	0.6
10°-20°	630.8	2.6
20°-30°	1103.4	4.5
30°-40°	1420.4	5.8
40°-50°	1586.5	6.4
50°-60°	1519.5	6.2
60°-70°	1204.2	4.9
70°-80°	708.1	2.9
80°-90°	206.2	0.8
90°-100°	1213.1	4.9
100°-110°	3189.2	12.9
110°-120°	3306.9	13.4
120°-130°	2652.5	10.8
130°-140°	2081.3	8.4
140°-150°	1597.5	6.5
150°-160°	1150.4	4.7
160°-170°	703.9	2.9
170°-180°	237.8	1.0
0°-30°	1876.5	7.6
0°-40°	3296.9	13.4
0°-60°	6403.0	26.0
0°-90°	8521.5	34.6
90°-120°	7709.2	31.3
90°-150°	14040.5	56.9
90°-180°	16133.0	65.4
0°-180°	24654.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1100	1100	1100	1100	1100	
5°	1072	1150	1295	1465	1518	99
15°	803	1482	2498	3028	3124	224
25°	513	1680	2976	3106	3110	236
35°	347	1606	2802	2961	3078	217
45°	237	1281	2477	2838	2965	183
55°	170	814	2102	2441	2508	155
65°	134	432	1560	1755	1780	133
75°	99	265	856	941	945	104
85°	35	81	212	234	237	38
90°	17	47	127	64	64	16
95°	160	628	2089	1077	733	178
105°	575	870	3526	5353	4994	609
115°	1020	1239	2824	5634	6430	1008
125°	1420	1592	2569	4341	5121	1260
135°	1692	1862	2489	3504	3973	1309
145°	1962	2088	2457	2990	3224	1229
155°	2218	2280	2457	2697	2776	1019
165°	2393	2425	2457	2554	2586	675
175°	2489	2489	2474	2505	2505	236
180°	2489	2489	2489	2489	2489	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1100.3	1100.3	1100.3	1100.3	1100.3	1100.3	1100.3	1100.3	1100.3	1100.3	1100.3
2.5°	1100.3	1100.3	1107.4	1111.0	1118.0	1121.6	1128.6	1135.7	1156.9	1160.5	1167.5
5°	1072.0	1086.1	1132.2	1149.9	1199.4	1266.6	1294.9	1340.9	1436.4	1464.7	1482.4
7.5°	1029.5	1061.4	1174.6	1202.9	1326.7	1503.6	1578.0	1677.0	1829.2	1903.4	1963.6
10°	962.3	1029.5	1231.2	1298.4	1500.1	1769.0	1907.0	2045.0	2274.9	2377.5	2416.4
12.5°	888.1	997.7	1291.4	1383.4	1673.5	2066.1	2232.4	2384.6	2646.4	2784.4	2805.6
15°	803.1	951.7	1347.9	1482.4	1857.5	2313.8	2497.8	2685.4	2929.5	3028.5	3053.3
17.5°	728.8	916.4	1401.1	1542.5	1998.9	2536.7	2724.3	2879.9	3078.0	3145.2	3163.0
20°	636.8	859.8	1436.4	1620.4	2147.6	2699.5	2879.9	3000.2	3134.6	3177.1	3184.2
22.5°	569.6	799.6	1457.6	1648.7	2246.6	2798.5	2950.6	3046.2	3138.2	3152.4	3155.9
25°	513.0	732.4	1454.1	1680.5	2331.5	2858.7	2975.5	3046.2	3099.3	3106.3	3106.3
27.5°	460.0	658.0	1440.0	1687.6	2395.3	2872.8	2964.8	3014.4	3039.1	3053.3	3053.3
30°	413.9	587.3	1404.5	1673.5	2423.6	2858.7	2933.0	2957.8	2982.5	3003.8	3014.4
32.5°	378.6	520.0	1351.5	1645.2	2427.0	2823.4	2876.4	2890.6	2925.9	2975.5	2993.1
35°	346.7	452.8	1291.4	1606.3	2405.8	2766.7	2802.1	2816.2	2887.0	2961.3	2986.1
37.5°	314.9	403.4	1213.5	1539.1	2374.0	2699.5	2724.3	2749.0	2858.7	2947.2	2975.5
40°	283.0	360.9	1121.6	1464.7	2324.5	2618.1	2639.3	2678.2	2823.4	2925.9	2954.2
42.5°	258.2	325.5	1022.5	1386.9	2260.7	2526.1	2558.0	2614.6	2780.9	2890.6	2922.3
45°	237.1	290.1	916.4	1280.7	2179.4	2430.6	2476.6	2554.4	2731.3	2837.5	2865.8
47.5°	215.8	265.4	806.7	1171.1	2091.0	2335.1	2395.3	2483.6	2664.1	2766.7	2791.5
50°	198.2	240.6	697.0	1054.4	1995.5	2232.4	2303.2	2395.3	2579.2	2674.7	2706.6
52.5°	184.0	219.3	594.4	937.6	1885.7	2126.3	2207.7	2303.2	2476.6	2568.6	2589.8
55°	169.9	201.6	505.9	813.7	1772.6	2013.1	2101.6	2193.5	2363.4	2441.2	2455.3
57.5°	162.7	187.5	431.7	697.0	1652.2	1885.7	1984.8	2069.7	2229.0	2289.0	2303.2
60°	152.1	176.9	375.0	597.9	1521.3	1765.4	1850.4	1935.3	2069.7	2119.3	2129.9
62.5°	141.5	169.9	332.6	502.4	1386.9	1623.9	1708.8	1786.7	1899.9	1935.3	1949.4
65°	134.4	162.7	300.7	431.7	1249.0	1475.3	1560.2	1627.5	1719.5	1754.8	1761.9
67.5°	127.4	155.7	276.0	371.5	1111.0	1326.7	1390.4	1454.1	1524.9	1560.2	1563.8
70°	116.8	148.6	254.8	329.0	969.4	1156.9	1210.0	1277.2	1333.8	1351.5	1362.1
72.5°	109.7	138.0	240.6	297.2	824.3	994.2	1043.7	1082.7	1132.2	1149.9	1149.9
75°	99.1	123.8	226.5	265.4	675.7	813.7	856.2	895.1	934.0	941.1	930.5
77.5°	88.5	109.7	194.6	222.9	527.2	643.9	679.3	700.5	732.4	739.4	743.0
80°	74.3	95.5	152.1	173.3	382.1	474.1	498.9	516.6	544.9	544.9	551.9
82.5°	56.6	74.3	109.7	123.8	258.2	325.5	346.7	357.3	375.0	375.0	375.0
85°	35.3	46.0	70.8	81.4	155.7	198.2	212.3	215.8	229.9	233.5	233.5
87.5°	17.7	24.7	46.0	49.5	81.4	102.6	102.6	109.7	109.7	106.1	102.6
90°	16.7	30.1	43.5	46.8	73.5	109.1	126.9	112.8	84.6	63.5	63.5
92.5°	66.8	180.3	293.9	322.3	453.2	627.6	714.8	626.4	449.8	317.3	304.7
95°	160.3	368.1	576.0	628.0	1115.2	1764.7	2089.4	1864.5	1414.7	1077.3	1039.1
97.5°	277.2	460.6	643.9	689.8	1502.1	2585.1	3126.6	2984.5	2700.2	2486.9	2414.2
100°	367.4	533.7	700.0	741.6	1643.0	2844.7	3445.6	3456.0	3476.8	3492.4	3405.7
102.5°	444.3	599.4	754.5	793.4	1707.5	2926.4	3535.8	3717.0	4079.2	4350.9	4276.6
105°	574.6	706.0	837.4	870.2	1755.4	2935.6	3525.8	3931.8	4743.9	5353.0	5313.1
107.5°	708.2	830.7	953.1	983.8	1764.3	2805.0	3325.4	3891.7	5024.5	5874.1	5883.7
110°	798.4	909.0	1019.6	1047.2	1751.0	2689.2	3158.4	3791.6	5057.9	6007.7	6049.3



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	886.9	992.3	1097.7	1124.1	1751.5	2588.1	3006.3	3654.4	4950.5	5922.5	5986.4
115°	1020.5	1117.7	1215.0	1239.3	1767.7	2472.1	2824.3	3448.6	4697.1	5633.6	5722.1
117.5°	1152.5	1240.7	1329.1	1351.2	1800.4	2399.5	2699.0	3262.4	4389.3	5234.4	5332.6
120°	1229.2	1312.4	1395.5	1416.3	1827.2	2375.0	2648.9	3163.7	4193.3	4965.5	5060.9
122.5°	1304.4	1388.3	1472.2	1493.2	1865.7	2362.2	2610.6	3074.1	4001.3	4696.6	4790.7
125°	1419.7	1496.1	1572.6	1591.7	1917.4	2351.7	2568.8	2962.6	3750.2	4340.8	4427.5
127.5°	1513.2	1590.4	1667.6	1686.9	1969.1	2345.5	2533.7	2871.8	3548.1	4055.3	4128.4
130°	1563.3	1646.4	1729.5	1750.3	2007.0	2349.2	2520.3	2821.3	3423.4	3874.9	3942.4
132.5°	1615.1	1698.2	1781.3	1802.1	2037.6	2351.6	2508.6	2778.1	3317.1	3721.2	3781.8
135°	1691.9	1767.6	1843.3	1862.3	2071.1	2349.5	2488.6	2714.3	3165.6	3504.1	3556.2
137.5°	1770.4	1845.4	1920.4	1939.1	2121.1	2363.8	2485.2	2676.0	3057.6	3343.8	3386.4
140°	1835.6	1904.6	1973.7	1990.9	2151.7	2366.2	2473.5	2638.3	2968.0	3215.1	3255.0
142.5°	1885.7	1949.5	2013.3	2029.3	2177.4	2374.8	2473.5	2618.3	2907.8	3125.0	3159.3
145°	1962.5	2018.2	2073.8	2087.7	2210.8	2374.8	2456.8	2575.2	2812.0	2989.7	3015.6
147.5°	2039.3	2093.5	2147.6	2161.2	2259.8	2391.2	2456.8	2550.0	2736.3	2876.1	2897.6
150°	2089.4	2138.4	2187.5	2199.7	2285.4	2399.7	2456.8	2535.6	2692.9	2810.9	2828.4
152.5°	2141.2	2178.3	2215.4	2224.7	2302.1	2405.3	2456.8	2524.1	2658.4	2759.2	2772.4
155°	2218.1	2245.6	2273.0	2279.8	2338.8	2417.5	2456.8	2510.3	2617.3	2697.4	2706.2
157.5°	2274.8	2301.5	2328.2	2334.9	2375.5	2429.7	2456.8	2498.4	2581.5	2643.9	2650.1
160°	2313.2	2334.0	2354.8	2360.0	2392.3	2435.3	2456.8	2492.5	2563.7	2617.2	2620.7
162.5°	2351.6	2367.2	2382.8	2386.7	2410.1	2441.2	2456.8	2486.9	2547.1	2592.2	2595.5
165°	2393.4	2407.5	2421.6	2425.2	2435.7	2449.8	2456.8	2478.4	2521.4	2553.7	2557.3
167.5°	2431.9	2438.5	2445.2	2446.8	2455.8	2467.6	2473.5	2487.6	2515.8	2537.0	2538.5
170°	2456.8	2463.5	2470.2	2471.9	2472.5	2473.2	2473.5	2487.6	2515.8	2537.0	2537.0
172.5°	2470.2	2471.7	2473.2	2473.5	2473.5	2473.5	2473.5	2484.7	2507.0	2523.7	2522.4
175°	2488.6	2488.6	2488.6	2488.6	2483.6	2476.9	2473.5	2480.6	2494.7	2505.3	2505.3
177.5°	2488.6	2488.6	2488.6	2488.6	2484.7	2479.5	2476.9	2482.5	2493.6	2501.9	2500.4
180°	2488.6	2488.6	2488.6	2488.6	2488.6	2488.6	2488.6	2488.6	2488.6	2488.6	2488.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1100.3	1100.3
2.5°	1174.6	1167.5
5°	1510.8	1517.8
7.5°	2034.4	2030.8
10°	2529.7	2561.5
12.5°	2890.6	2897.6
15°	3109.9	3124.1
17.5°	3194.8	3198.3
20°	3198.3	3191.3
22.5°	3159.4	3152.4
25°	3113.5	3109.9
27.5°	3071.0	3074.5
30°	3053.3	3063.9
32.5°	3053.3	3071.0
35°	3060.3	3078.0
37.5°	3056.8	3078.0
40°	3042.7	3067.4
42.5°	3003.8	3021.4
45°	2943.6	2964.8
47.5°	2865.8	2879.9
50°	2766.7	2780.9
52.5°	2642.9	2646.4
55°	2494.2	2508.4
57.5°	2335.1	2338.6
60°	2158.2	2168.8
62.5°	1970.6	1970.6
65°	1772.6	1779.6
67.5°	1567.4	1585.0
70°	1358.6	1362.1
72.5°	1153.4	1153.4
75°	941.1	944.7
77.5°	739.4	739.4
80°	548.4	551.9
82.5°	378.6	385.6
85°	237.1	237.1
87.5°	109.7	99.1
90°	63.5	63.5
92.5°	254.2	203.8
95°	886.1	733.2
97.5°	2123.2	1832.2
100°	3059.1	2712.4
102.5°	3979.7	3682.8
105°	5153.5	4993.9
107.5°	5922.4	5960.9
110°	6215.6	6381.9



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	6241.7	6497.1
115°	6076.2	6430.3
117.5°	5725.3	6117.9
120°	5442.4	5824.0
122.5°	5167.1	5543.4
125°	4774.2	5120.9
127.5°	4420.9	4713.3
130°	4212.6	4482.8
132.5°	4023.7	4265.7
135°	3764.8	3973.4
137.5°	3557.2	3727.8
140°	3414.6	3574.2
142.5°	3296.6	3433.9
145°	3119.6	3223.5
147.5°	2983.8	3069.8
150°	2898.2	2968.0
152.5°	2825.1	2877.7
155°	2741.0	2775.9
157.5°	2674.6	2699.0
160°	2634.8	2648.9
162.5°	2608.9	2622.2
165°	2571.4	2585.5
167.5°	2544.4	2550.4
170°	2537.0	2537.0
172.5°	2517.2	2512.0
175°	2505.3	2505.3
177.5°	2494.5	2488.6
180°	2488.6	2488.6



TEST NUMBER: P938427
 CATALOG NUMBER: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-12-3500K

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	3.66	4.42	4.73	5.50	6.97	16.85	17.61	17.92	18.69	20.16
	3H	4.36	5.04	5.44	6.13	7.62	18.69	19.37	19.77	20.46	21.95
	4H	4.65	5.30	5.74	6.39	7.88	19.33	19.98	20.42	21.07	22.57
	6H	4.89	5.49	6.00	6.58	8.09	19.76	20.36	20.86	21.45	22.96
	8H	4.96	5.53	6.07	6.64	8.14	19.88	20.45	20.99	21.56	23.06
	12H	4.97	5.51	6.08	6.62	8.14	19.95	20.49	21.06	21.59	23.12
4H	2H	10.87	11.52	11.97	12.61	14.10	17.11	17.76	18.21	18.85	20.35
	3H	12.43	12.97	13.53	14.08	15.59	19.15	19.70	20.26	20.81	22.32
	4H	12.52	13.02	13.63	14.12	15.65	19.92	20.42	21.03	21.52	23.05
	6H	12.52	12.95	13.64	14.08	15.60	20.46	20.88	21.58	22.01	23.54
	8H	12.49	12.90	13.61	14.02	15.55	20.62	21.02	21.74	22.14	23.68
	12H	12.45	12.81	13.58	13.94	15.49	20.71	21.07	21.85	22.20	23.75
8H	4H	13.96	14.36	15.08	15.48	17.02	19.97	20.37	21.09	21.49	23.03
	6H	14.19	14.52	15.33	15.69	17.22	20.60	20.93	21.74	22.09	23.63
	8H	14.21	14.50	15.36	15.64	17.20	20.82	21.11	21.97	22.25	23.81
	12H	14.17	14.43	15.32	15.57	17.16	20.96	21.22	22.11	22.36	23.95
12H	4H	14.10	14.46	15.23	15.59	17.14	19.92	20.28	21.05	21.41	22.96
	6H	14.45	14.74	15.60	15.88	17.44	20.58	20.87	21.73	22.01	23.57
	8H	14.52	14.77	15.67	15.91	17.50	20.81	21.06	21.96	22.20	23.79