

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: P938425

Luminaire Tested: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-12-2700K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938425
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-12-2700K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

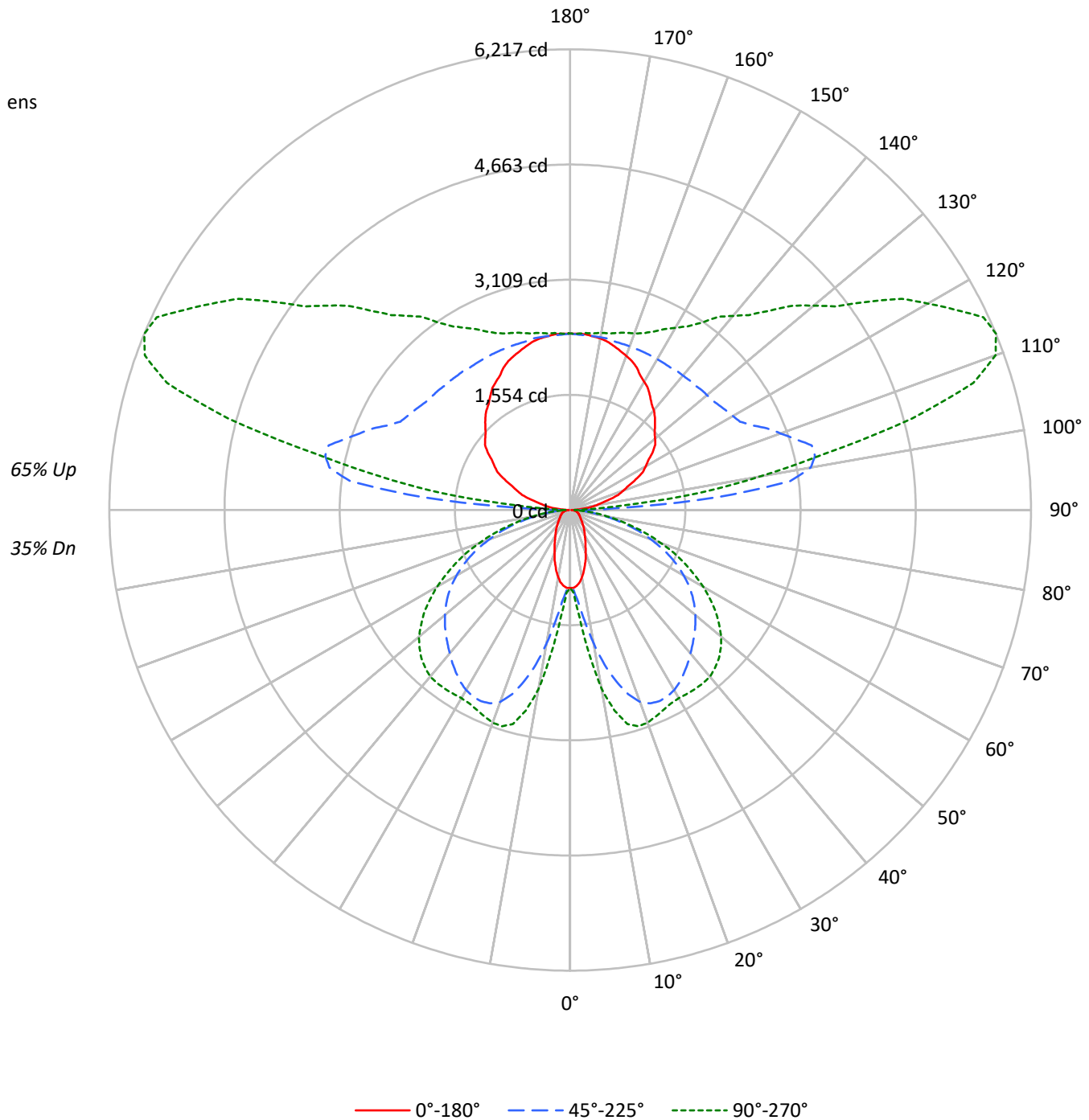
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23591.0 lumens
Efficiency: N/A
Efficacy: 108.6 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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CATALOG NUMBER: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-12-2700K

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°	3257	3257	3257
5°	3183	3765	4377
10°	2888	5490	7257
15°	2455	7174	8763
20°	1999	8315	8931
25°	1669	8704	8749
30°	1408	8761	8733
35°	1245	8618	8958
40°	1086	8431	9192
45°	984	8295	9228
50°	903	8173	9075
55°	866	7994	8673
60°	887	7646	8038
65°	925	7116	7165
70°	988	6210	6053
75°	1099	5068	4724
80°	1209	3519	3183
85°	1095	1870	1630

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9228 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.2	0.6
10°-20°	603.6	2.6
20°-30°	1055.8	4.5
30°-40°	1359.1	5.8
40°-50°	1518.1	6.4
50°-60°	1454.0	6.2
60°-70°	1152.3	4.9
70°-80°	677.6	2.9
80°-90°	197.3	0.8
90°-100°	1160.8	4.9
100°-110°	3051.7	12.9
110°-120°	3164.3	13.4
120°-130°	2538.1	10.8
130°-140°	1991.5	8.4
140°-150°	1528.6	6.5
150°-160°	1100.8	4.7
160°-170°	673.6	2.9
170°-180°	227.6	1.0
0°-30°	1795.6	7.6
0°-40°	3154.7	13.4
0°-60°	6126.9	26.0
0°-90°	8154.1	34.6
90°-120°	7376.7	31.3
90°-150°	13435.0	56.9
90°-180°	15437.0	65.4
0°-180°	23591.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1053	1053	1053	1053	1053	
5°	1026	1100	1239	1402	1452	95
15°	768	1418	2390	2898	2989	214
25°	491	1608	2847	2972	2976	226
35°	332	1537	2681	2834	2945	207
45°	227	1226	2370	2715	2837	175
55°	162	779	2011	2336	2400	148
65°	129	413	1493	1679	1703	127
75°	95	254	819	900	904	99
85°	34	78	203	223	227	36
90°	16	45	122	61	61	15
95°	153	601	1999	1031	702	170
105°	550	833	3374	5122	4779	583
115°	976	1186	2702	5391	6153	964
125°	1358	1523	2458	4154	4900	1206
135°	1619	1782	2381	3353	3802	1253
145°	1878	1998	2351	2861	3084	1176
155°	2122	2182	2351	2581	2656	975
165°	2290	2321	2351	2444	2474	646
175°	2381	2381	2367	2397	2397	226
180°	2381	2381	2381	2381	2381	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1052.9	1052.9	1052.9	1052.9	1052.9	1052.9	1052.9	1052.9	1052.9	1052.9	1052.9
2.5°	1052.9	1052.9	1059.6	1063.0	1069.8	1073.2	1080.0	1086.7	1107.0	1110.5	1117.2
5°	1025.8	1039.3	1083.4	1100.3	1147.7	1212.0	1239.1	1283.1	1374.5	1401.5	1418.5
7.5°	985.2	1015.6	1123.9	1151.0	1269.5	1438.8	1509.9	1604.7	1750.3	1821.3	1878.9
10°	920.8	985.2	1178.1	1242.4	1435.4	1692.7	1824.8	1956.8	2176.8	2275.0	2312.2
12.5°	849.8	954.7	1235.7	1323.7	1601.3	1977.1	2136.2	2281.8	2532.3	2664.4	2684.6
15°	768.5	910.7	1289.8	1418.5	1777.4	2214.1	2390.1	2569.6	2803.2	2897.9	2921.6
17.5°	697.4	876.8	1340.6	1476.0	1912.7	2427.3	2606.8	2755.8	2945.3	3009.6	3026.6
20°	609.3	822.7	1374.5	1550.5	2054.9	2583.1	2755.8	2870.8	2999.4	3040.1	3046.8
22.5°	545.0	765.1	1394.8	1577.6	2149.8	2677.9	2823.4	2914.9	3002.9	3016.4	3019.8
25°	490.9	700.8	1391.4	1608.1	2231.0	2735.4	2847.2	2914.9	2965.6	2972.4	2972.4
27.5°	440.1	629.7	1377.9	1614.8	2292.0	2748.9	2837.0	2884.4	2908.0	2921.6	2921.6
30°	396.1	562.0	1344.0	1601.3	2319.0	2735.4	2806.5	2830.2	2853.9	2874.2	2884.4
32.5°	362.2	497.6	1293.2	1574.2	2322.4	2701.6	2752.3	2765.9	2799.7	2847.2	2864.1
35°	331.7	433.3	1235.7	1537.0	2302.0	2647.4	2681.3	2694.8	2762.5	2833.6	2857.3
37.5°	301.3	386.0	1161.2	1472.7	2271.6	2583.1	2606.8	2630.5	2735.4	2820.1	2847.2
40°	270.8	345.3	1073.2	1401.5	2224.2	2505.2	2525.5	2562.7	2701.6	2799.7	2826.8
42.5°	247.1	311.5	978.4	1327.1	2163.2	2417.2	2447.7	2501.8	2661.0	2765.9	2796.3
45°	226.9	277.6	876.8	1225.5	2085.4	2325.8	2369.8	2444.3	2613.5	2715.1	2742.2
47.5°	206.5	253.9	771.9	1120.6	2000.8	2234.4	2292.0	2376.5	2549.2	2647.4	2671.1
50°	189.6	230.2	666.9	1008.9	1909.4	2136.2	2203.9	2292.0	2468.0	2559.4	2589.9
52.5°	176.0	209.9	568.8	897.2	1804.4	2034.6	2112.5	2203.9	2369.8	2457.8	2478.2
55°	162.5	192.9	484.1	778.6	1696.1	1926.3	2011.0	2098.9	2261.5	2336.0	2349.4
57.5°	155.7	179.5	413.1	666.9	1581.0	1804.4	1899.2	1980.5	2132.8	2190.3	2203.9
60°	145.5	169.3	358.8	572.1	1455.7	1689.3	1770.6	1851.8	1980.5	2027.9	2038.0
62.5°	135.4	162.5	318.2	480.7	1327.1	1553.9	1635.1	1709.6	1818.0	1851.8	1865.3
65°	128.6	155.7	287.8	413.1	1195.1	1411.7	1492.9	1557.3	1645.3	1679.1	1686.0
67.5°	121.9	149.0	264.1	355.5	1063.0	1269.5	1330.5	1391.4	1459.1	1492.9	1496.3
70°	111.7	142.2	243.8	314.8	927.6	1107.0	1157.9	1222.2	1276.3	1293.2	1303.4
72.5°	105.0	132.0	230.2	284.3	788.8	951.3	998.7	1036.0	1083.4	1100.3	1100.3
75°	94.8	118.5	216.7	253.9	646.6	778.6	819.3	856.5	893.8	900.5	890.3
77.5°	84.6	105.0	186.2	213.3	504.4	616.2	650.0	670.3	700.8	707.6	711.0
80°	71.1	91.4	145.5	165.9	365.7	453.6	477.4	494.3	521.4	521.4	528.1
82.5°	54.2	71.1	105.0	118.5	247.1	311.5	331.7	341.9	358.8	358.8	358.8
85°	33.8	44.0	67.7	77.9	149.0	189.6	203.1	206.5	220.0	223.4	223.4
87.5°	16.9	23.7	44.0	47.4	77.9	98.1	98.1	105.0	105.0	101.6	98.1
90°	16.0	28.8	41.6	44.8	70.3	104.4	121.5	108.0	81.0	60.7	60.7
92.5°	63.9	172.5	281.3	308.4	433.6	600.5	684.0	599.4	430.4	303.6	291.6
95°	153.4	352.2	551.2	600.9	1067.1	1688.6	1999.3	1784.1	1353.7	1030.8	994.3
97.5°	265.3	440.7	616.2	660.1	1437.3	2473.6	2991.8	2855.8	2583.7	2379.7	2310.1
100°	351.6	510.7	669.8	709.6	1572.1	2722.0	3297.0	3306.9	3326.8	3341.8	3258.8
102.5°	425.1	573.5	722.0	759.1	1633.9	2800.2	3383.4	3556.7	3903.3	4163.3	4092.2
105°	549.8	675.5	801.3	832.7	1679.7	2809.1	3373.7	3762.3	4539.3	5122.1	5083.9
107.5°	677.7	794.9	912.0	941.3	1688.2	2684.0	3182.0	3723.9	4807.8	5620.8	5630.0
110°	763.9	869.8	975.6	1002.1	1675.5	2573.2	3022.2	3628.1	4839.8	5748.6	5788.4



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	848.7	949.5	1050.4	1075.6	1676.0	2476.5	2876.7	3496.8	4737.0	5667.1	5728.2
115°	976.5	1069.5	1162.6	1185.9	1691.4	2365.5	2702.5	3299.9	4494.6	5390.7	5475.4
117.5°	1102.8	1187.2	1271.8	1292.9	1722.8	2296.0	2582.6	3121.8	4200.0	5008.7	5102.6
120°	1176.2	1255.8	1335.3	1355.2	1748.4	2272.6	2534.7	3027.3	4012.4	4751.3	4842.6
122.5°	1248.1	1328.4	1408.7	1428.8	1785.2	2260.4	2498.0	2941.5	3828.7	4494.1	4584.1
125°	1358.5	1431.6	1504.8	1523.1	1834.8	2250.3	2458.0	2834.9	3588.4	4153.6	4236.6
127.5°	1447.9	1521.8	1595.7	1614.1	1884.2	2244.4	2424.4	2748.0	3395.1	3880.4	3950.3
130°	1495.9	1575.4	1655.0	1674.9	1920.4	2247.9	2411.6	2699.6	3275.8	3707.8	3772.4
132.5°	1545.5	1625.0	1704.5	1724.4	1949.7	2250.2	2400.4	2658.3	3174.0	3560.8	3618.7
135°	1618.9	1691.3	1763.9	1782.0	1981.7	2248.2	2381.3	2597.2	3029.1	3353.0	3402.8
137.5°	1694.1	1765.8	1837.6	1855.5	2029.7	2261.9	2378.1	2560.6	2925.7	3199.6	3240.4
140°	1756.4	1822.5	1888.6	1905.0	2059.0	2264.2	2366.9	2524.5	2840.0	3076.5	3114.7
142.5°	1804.3	1865.4	1926.5	1941.8	2083.5	2272.4	2366.9	2505.4	2782.4	2990.2	3023.1
145°	1877.9	1931.2	1984.4	1997.7	2115.4	2272.4	2350.9	2464.2	2690.8	2860.7	2885.6
147.5°	1951.3	2003.2	2055.0	2068.0	2162.3	2288.0	2350.9	2440.1	2618.3	2752.1	2772.7
150°	1999.3	2046.2	2093.1	2104.8	2186.8	2296.2	2350.9	2426.2	2576.8	2689.7	2706.4
152.5°	2048.9	2084.4	2119.9	2128.7	2202.8	2301.5	2350.9	2415.2	2543.8	2640.2	2652.8
155°	2122.4	2148.7	2175.0	2181.5	2238.0	2313.2	2350.9	2402.1	2504.4	2581.1	2589.5
157.5°	2176.7	2202.3	2227.8	2234.2	2273.1	2324.9	2350.9	2390.7	2470.2	2529.9	2535.8
160°	2213.5	2233.4	2253.3	2258.2	2289.1	2330.3	2350.9	2385.0	2453.1	2504.3	2507.7
162.5°	2250.2	2265.1	2280.0	2283.8	2306.1	2336.0	2350.9	2379.7	2437.3	2480.4	2483.5
165°	2290.2	2303.7	2317.2	2320.6	2330.7	2344.2	2350.9	2371.5	2412.7	2443.6	2447.0
167.5°	2327.0	2333.4	2339.7	2341.3	2349.9	2361.2	2366.9	2380.4	2407.4	2427.6	2429.1
170°	2350.9	2357.3	2363.7	2365.3	2365.8	2366.5	2366.9	2380.4	2407.4	2427.6	2427.6
172.5°	2363.7	2365.1	2366.5	2366.9	2366.9	2366.9	2366.9	2377.6	2398.9	2414.9	2413.6
175°	2381.3	2381.3	2381.3	2381.3	2376.5	2370.1	2366.9	2373.6	2387.1	2397.3	2397.3
177.5°	2381.3	2381.3	2381.3	2381.3	2377.6	2372.6	2370.1	2375.4	2386.1	2394.0	2392.6
180°	2381.3	2381.3	2381.3	2381.3	2381.3	2381.3	2381.3	2381.3	2381.3	2381.3	2381.3



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1052.9	1052.9
2.5°	1123.9	1117.2
5°	1445.6	1452.4
7.5°	1946.6	1943.2
10°	2420.6	2451.0
12.5°	2765.9	2772.7
15°	2975.8	2989.4
17.5°	3057.0	3060.4
20°	3060.4	3053.7
22.5°	3023.2	3016.4
25°	2979.2	2975.8
27.5°	2938.5	2942.0
30°	2921.6	2931.8
32.5°	2921.6	2938.5
35°	2928.4	2945.3
37.5°	2925.0	2945.3
40°	2911.5	2935.1
42.5°	2874.2	2891.1
45°	2816.7	2837.0
47.5°	2742.2	2755.8
50°	2647.4	2661.0
52.5°	2528.9	2532.3
55°	2386.7	2400.3
57.5°	2234.4	2237.7
60°	2065.1	2075.3
62.5°	1885.7	1885.7
65°	1696.1	1702.9
67.5°	1499.8	1516.7
70°	1300.0	1303.4
72.5°	1103.6	1103.6
75°	900.5	903.9
77.5°	707.6	707.6
80°	524.8	528.1
82.5°	362.2	369.0
85°	226.9	226.9
87.5°	105.0	94.8
90°	60.7	60.7
92.5°	243.3	195.0
95°	847.9	701.6
97.5°	2031.6	1753.2
100°	2927.2	2595.4
102.5°	3808.1	3524.0
105°	4931.3	4778.6
107.5°	5667.0	5703.9
110°	5947.5	6106.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	5972.6	6216.9
115°	5814.1	6153.0
117.5°	5478.4	5854.1
120°	5207.7	5572.8
122.5°	4944.3	5304.4
125°	4568.3	4900.0
127.5°	4230.2	4510.1
130°	4031.0	4289.5
132.5°	3850.2	4081.7
135°	3602.5	3802.1
137.5°	3403.8	3567.1
140°	3267.4	3420.1
142.5°	3154.5	3285.8
145°	2985.1	3084.5
147.5°	2855.1	2937.4
150°	2773.2	2840.0
152.5°	2703.2	2753.6
155°	2622.8	2656.2
157.5°	2559.2	2582.6
160°	2521.2	2534.7
162.5°	2496.4	2509.2
165°	2460.5	2474.0
167.5°	2434.7	2440.4
170°	2427.6	2427.6
172.5°	2408.6	2403.7
175°	2397.3	2397.3
177.5°	2386.9	2381.3
180°	2381.3	2381.3



TEST NUMBER: P938425
 CATALOG NUMBER: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-12-2700K

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	3.51	4.27	4.58	5.35	6.82	16.70	17.46	17.77	18.54	20.01
	3H	4.20	4.89	5.28	5.97	7.46	18.53	19.22	19.62	20.30	21.79
	4H	4.50	5.15	5.59	6.23	7.73	19.18	19.83	20.27	20.91	22.41
	6H	4.74	5.34	5.84	6.43	7.94	19.61	20.21	20.71	21.30	22.81
	8H	4.81	5.38	5.91	6.48	7.99	19.73	20.30	20.83	21.40	22.91
	12H	4.82	5.36	5.93	6.46	7.99	19.79	20.34	20.91	21.44	22.96
4H	2H	10.72	11.36	11.82	12.45	13.95	16.96	17.61	18.06	18.70	20.19
	3H	12.27	12.82	13.38	13.93	15.44	19.00	19.54	20.11	20.66	22.17
	4H	12.36	12.86	13.47	13.97	15.50	19.76	20.26	20.88	21.37	22.90
	6H	12.37	12.80	13.49	13.92	15.45	20.30	20.73	21.42	21.86	23.38
	8H	12.34	12.74	13.46	13.86	15.40	20.46	20.87	21.58	21.99	23.52
	12H	12.29	12.66	13.43	13.79	15.33	20.56	20.92	21.69	22.05	23.60
8H	4H	13.80	14.20	14.92	15.32	16.86	19.82	20.22	20.94	21.34	22.88
	6H	14.04	14.37	15.18	15.53	17.07	20.45	20.78	21.59	21.94	23.47
	8H	14.06	14.35	15.20	15.49	17.04	20.67	20.96	21.81	22.10	23.65
	12H	14.02	14.28	15.17	15.41	17.01	20.81	21.06	21.96	22.20	23.79
12H	4H	13.94	14.31	15.08	15.44	16.98	19.76	20.13	20.90	21.26	22.80
	6H	14.30	14.59	15.45	15.73	17.29	20.43	20.72	21.57	21.86	23.42
	8H	14.36	14.62	15.51	15.76	17.35	20.65	20.91	21.81	22.05	23.64