

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: P938553

Luminaire Tested: SQ4-FB-150U-125D-93050-1D-UNV-STD-W-12-3000K

Issue Date: 12/17/2024

**Test Information**

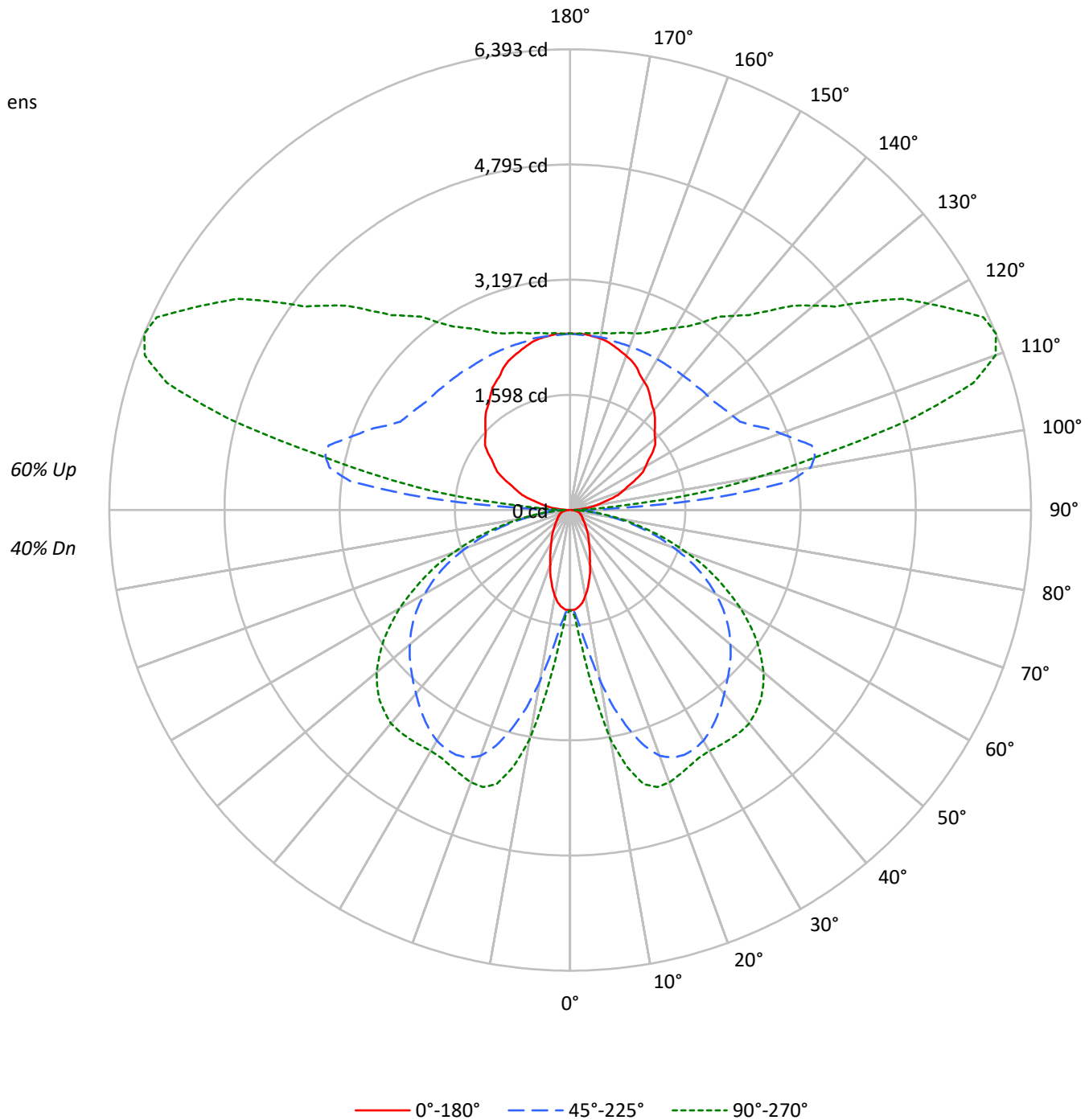
Test Method: LM-79-2019  
Report Number: P938553  
REPORT IS A COMBINATION OF REPORTS P933624 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-150U-125D-93050-1D-UNV-STD-W-12-3000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 26610.7 lumens  
Efficiency: N/A  
Efficacy: 106.6 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: General Diffuse  
  
Input Watts (W): 249.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	0
RCR																		
0	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	40
1	95	91	87	83	86	83	79	76	68	65	63	54	52	51	41	40	39	33
2	86	79	72	67	78	72	66	62	59	55	51	47	44	42	36	34	32	27
3	78	69	61	55	71	63	56	51	51	47	43	41	37	35	31	29	27	22
4	71	60	52	46	65	55	48	43	45	40	36	36	32	29	27	25	23	19
5	65	53	45	39	59	49	42	36	40	35	30	32	28	25	24	22	19	16
6	60	48	39	34	54	44	36	31	36	30	26	29	25	21	22	19	17	14
7	55	43	35	29	50	39	32	27	32	27	23	26	22	19	20	17	15	12
8	51	39	31	25	46	35	28	24	29	24	20	23	19	16	18	15	13	10
9	47	35	27	22	43	32	25	21	27	21	18	21	17	15	17	14	11	9
10	44	32	25	20	40	29	23	18	24	19	16	20	16	13	15	12	10	8

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	4289	4289	4289
5°	4192	4959	5765
10°	3804	7230	9558
15°	3234	9448	11541
20°	2634	10951	11762
25°	2198	11463	11523
30°	1854	11538	11502
35°	1641	11350	11799
40°	1430	11104	12106
45°	1296	10925	12154
50°	1190	10764	11953
55°	1140	10528	11423
60°	1169	10070	10586
65°	1218	9372	9437
70°	1301	8179	7972
75°	1446	6675	6221
80°	1592	4635	4192
85°	1445	2463	2145

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 12154 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	179.4	0.7
10°-20°	795.0	3.0
20°-30°	1390.6	5.2
30°-40°	1790.1	6.7
40°-50°	1999.5	7.5
50°-60°	1915.0	7.2
60°-70°	1517.7	5.7
70°-80°	892.4	3.4
80°-90°	257.3	1.0
90°-100°	1193.6	4.5
100°-110°	3138.1	11.8
110°-120°	3253.8	12.2
120°-130°	2610.0	9.8
130°-140°	2047.9	7.7
140°-150°	1571.8	5.9
150°-160°	1132.0	4.3
160°-170°	692.6	2.6
170°-180°	234.0	0.9
0°-30°	2365.0	8.9
0°-40°	4155.1	15.6
0°-60°	8069.6	30.3
0°-90°	10736.9	40.3
90°-120°	7585.5	28.5
90°-150°	13815.2	51.9
90°-180°	15874.0	59.7
0°-180°	26610.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1387	1387	1387	1387	1387	
5°	1351	1449	1632	1846	1913	125
15°	1012	1868	3148	3817	3937	282
25°	646	2118	3750	3915	3919	298
35°	437	2024	3531	3732	3879	273
45°	299	1614	3121	3576	3737	231
55°	214	1026	2649	3077	3161	195
65°	169	544	1966	2212	2243	168
75°	125	334	1079	1186	1190	131
85°	45	103	268	294	299	47
90°	16	46	125	62	62	17
95°	158	618	2056	1060	721	175
105°	565	856	3469	5267	4914	599
115°	1004	1219	2779	5543	6327	992
125°	1397	1566	2528	4271	5039	1240
135°	1665	1832	2449	3448	3910	1288
145°	1931	2054	2417	2942	3172	1210
155°	2182	2243	2417	2654	2731	1003
165°	2355	2386	2417	2513	2544	665
175°	2449	2449	2434	2465	2465	232
180°	2449	2449	2449	2449	2449	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1386.7	1386.7	1386.7	1386.7	1386.7	1386.7	1386.7	1386.7	1386.7	1386.7	1386.7
2.5°	1386.7	1386.7	1395.6	1400.1	1409.0	1413.4	1422.4	1431.3	1458.1	1462.5	1471.4
5°	1351.0	1368.8	1426.8	1449.1	1511.6	1596.3	1632.0	1689.9	1810.3	1846.0	1868.2
7.5°	1297.5	1337.7	1480.4	1516.0	1672.1	1895.0	1988.6	2113.5	2305.3	2398.9	2474.7
10°	1212.8	1297.5	1551.7	1636.4	1890.5	2229.4	2403.3	2577.2	2867.0	2996.3	3045.4
12.5°	1119.2	1257.4	1627.5	1743.4	2109.1	2604.0	2813.5	3005.3	3335.3	3509.2	3535.9
15°	1012.2	1199.4	1698.8	1868.2	2340.9	2916.1	3147.9	3384.3	3691.9	3816.8	3848.0
17.5°	918.5	1154.9	1765.7	1944.0	2519.2	3197.0	3433.4	3629.5	3879.2	3963.9	3986.3
20°	802.6	1083.5	1810.3	2042.1	2706.6	3402.1	3629.5	3781.1	3950.6	4004.1	4013.0
22.5°	717.8	1007.7	1837.1	2077.8	2831.4	3527.0	3718.7	3839.1	3955.0	3972.8	3977.3
25°	646.5	923.0	1832.6	2117.9	2938.4	3602.8	3749.9	3839.1	3906.0	3914.9	3914.9
27.5°	579.7	829.4	1814.7	2126.9	3018.6	3620.6	3736.6	3798.9	3830.2	3848.0	3848.0
30°	521.7	740.1	1770.1	2109.1	3054.3	3602.8	3696.4	3727.6	3758.9	3785.6	3798.9
32.5°	477.1	655.5	1703.3	2073.4	3058.8	3558.2	3625.1	3642.9	3687.5	3749.9	3772.2
35°	437.0	570.7	1627.5	2024.3	3032.1	3486.9	3531.4	3549.3	3638.4	3732.1	3763.3
37.5°	396.8	508.3	1529.4	1939.6	2991.9	3402.1	3433.4	3464.5	3602.8	3714.2	3749.9
40°	356.7	454.8	1413.4	1846.0	2929.5	3299.6	3326.3	3375.4	3558.2	3687.5	3723.1
42.5°	325.5	410.3	1288.6	1747.9	2849.2	3183.7	3223.8	3295.1	3504.7	3642.9	3683.1
45°	298.7	365.6	1154.9	1614.1	2746.6	3063.3	3121.2	3219.3	3442.2	3576.0	3611.7
47.5°	272.0	334.5	1016.6	1475.9	2635.2	2942.8	3018.6	3130.1	3357.6	3486.9	3518.0
50°	249.7	303.2	878.4	1328.8	2514.8	2813.5	2902.7	3018.6	3250.5	3370.9	3411.1
52.5°	231.9	276.5	749.1	1181.6	2376.6	2679.8	2782.4	2902.7	3121.2	3237.2	3263.9
55°	214.0	254.2	637.6	1025.5	2233.9	2537.1	2648.6	2764.5	2978.5	3076.6	3094.4
57.5°	205.1	236.4	544.0	878.4	2082.3	2376.6	2501.4	2608.5	2809.1	2884.9	2902.7
60°	191.7	222.9	472.6	753.6	1917.3	2225.0	2332.0	2439.0	2608.5	2670.8	2684.3
62.5°	178.4	214.0	419.1	633.2	1747.9	2046.6	2153.6	2251.7	2394.4	2439.0	2456.9
65°	169.4	205.1	379.0	544.0	1574.0	1859.4	1966.3	2051.1	2167.0	2211.6	2220.5
67.5°	160.6	196.2	347.8	468.2	1400.1	1672.1	1752.3	1832.6	1921.8	1966.3	1970.8
70°	147.1	187.3	321.0	414.6	1221.7	1458.1	1524.9	1609.7	1681.0	1703.3	1716.6
72.5°	138.2	173.9	303.2	374.5	1038.9	1253.0	1315.3	1364.4	1426.8	1449.1	1449.1
75°	124.8	156.1	285.4	334.5	851.6	1025.5	1079.1	1128.1	1177.1	1186.1	1172.7
77.5°	111.5	138.2	245.2	280.9	664.3	811.6	856.1	882.9	923.0	931.9	936.4
80°	93.6	120.4	191.7	218.5	481.6	597.5	628.7	651.0	686.7	686.7	695.6
82.5°	71.3	93.6	138.2	156.1	325.5	410.3	437.0	450.3	472.6	472.6	472.6
85°	44.6	58.0	89.1	102.6	196.2	249.7	267.5	272.0	289.8	294.3	294.3
87.5°	22.3	31.2	58.0	62.4	102.6	129.3	129.3	138.2	138.2	133.8	129.3
90°	16.4	29.6	42.8	46.0	72.3	107.3	124.9	111.0	83.3	62.4	62.4
92.5°	65.7	177.4	289.2	317.2	445.9	617.5	703.3	616.4	442.6	312.2	299.9
95°	157.7	362.2	566.8	617.9	1097.3	1736.4	2055.9	1834.6	1392.0	1060.0	1022.4
97.5°	272.8	453.2	633.6	678.8	1478.0	2543.6	3076.4	2936.6	2656.9	2447.0	2375.5
100°	361.5	525.1	688.8	729.7	1616.6	2799.1	3390.3	3400.5	3421.0	3436.4	3351.1
102.5°	437.1	589.8	742.4	780.6	1680.1	2879.4	3479.1	3657.3	4013.7	4281.1	4208.0
105°	565.4	694.6	823.9	856.3	1727.3	2888.6	3469.2	3868.7	4667.8	5267.1	5227.8
107.5°	696.8	817.3	937.8	968.0	1736.0	2760.0	3272.0	3829.3	4943.9	5779.8	5789.3
110°	785.6	894.4	1003.2	1030.4	1722.9	2646.1	3107.7	3730.8	4976.8	5911.3	5952.2



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	872.7	976.4	1080.1	1106.0	1723.4	2546.5	2958.1	3595.8	4871.1	5827.5	5890.3
115°	1004.2	1099.8	1195.5	1219.4	1739.3	2432.5	2779.0	3393.3	4621.8	5543.2	5630.3
117.5°	1134.0	1220.8	1307.8	1329.5	1771.5	2361.0	2655.7	3210.1	4318.9	5150.4	5247.1
120°	1209.5	1291.4	1373.1	1393.6	1797.9	2336.9	2606.4	3113.0	4126.0	4885.8	4979.7
122.5°	1283.5	1366.0	1448.6	1469.2	1835.7	2324.3	2568.7	3024.8	3937.1	4621.3	4713.8
125°	1396.9	1472.1	1547.4	1566.2	1886.7	2314.0	2527.6	2915.1	3690.0	4271.2	4356.5
127.5°	1488.9	1564.9	1640.8	1659.8	1937.5	2307.9	2493.1	2825.8	3491.2	3990.2	4062.1
130°	1538.3	1620.0	1701.8	1722.3	1974.8	2311.5	2479.9	2776.0	3368.5	3812.7	3879.2
132.5°	1589.2	1671.0	1752.7	1773.2	2004.9	2313.9	2468.4	2733.5	3263.9	3661.5	3721.1
135°	1664.7	1739.2	1813.8	1832.4	2037.8	2311.8	2448.7	2670.7	3114.8	3447.9	3499.2
137.5°	1742.0	1815.8	1889.6	1908.0	2087.1	2325.9	2445.4	2633.1	3008.5	3290.1	3332.1
140°	1806.1	1874.0	1942.0	1959.0	2117.2	2328.3	2433.9	2596.0	2920.4	3163.6	3202.8
142.5°	1855.4	1918.2	1981.0	1996.7	2142.4	2336.7	2433.9	2576.3	2861.2	3074.8	3108.7
145°	1931.0	1985.8	2040.6	2054.3	2175.3	2336.7	2417.4	2533.9	2766.9	2941.7	2967.3
147.5°	2006.6	2059.9	2113.2	2126.5	2223.5	2352.8	2417.4	2509.1	2692.4	2830.0	2851.1
150°	2055.9	2104.1	2152.4	2164.4	2248.7	2361.2	2417.4	2494.9	2649.7	2765.9	2783.0
152.5°	2106.9	2143.4	2179.9	2189.0	2265.1	2366.7	2417.4	2483.6	2615.8	2714.9	2727.9
155°	2182.5	2209.5	2236.5	2243.3	2301.3	2378.7	2417.4	2470.0	2575.3	2654.1	2662.7
157.5°	2238.4	2264.6	2290.9	2297.5	2337.4	2390.7	2417.4	2458.4	2540.1	2601.5	2607.6
160°	2276.1	2296.6	2317.0	2322.1	2353.9	2396.3	2417.4	2452.5	2522.6	2575.2	2578.7
162.5°	2313.9	2329.3	2344.5	2348.4	2371.4	2402.1	2417.4	2447.0	2506.2	2550.6	2553.8
165°	2355.0	2368.9	2382.7	2386.3	2396.6	2410.5	2417.4	2438.6	2480.9	2512.7	2516.2
167.5°	2392.8	2399.4	2405.9	2407.6	2416.4	2428.1	2433.9	2447.7	2475.5	2496.3	2497.8
170°	2417.4	2424.0	2430.6	2432.3	2432.8	2433.5	2433.9	2447.7	2475.5	2496.3	2496.3
172.5°	2430.6	2432.0	2433.5	2433.9	2433.9	2433.9	2433.9	2444.8	2466.8	2483.2	2481.9
175°	2448.7	2448.7	2448.7	2448.7	2443.8	2437.2	2433.9	2440.8	2454.7	2465.1	2465.1
177.5°	2448.7	2448.7	2448.7	2448.7	2444.8	2439.7	2437.2	2442.6	2453.6	2461.8	2460.3
180°	2448.7	2448.7	2448.7	2448.7	2448.7	2448.7	2448.7	2448.7	2448.7	2448.7	2448.7



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	1386.7	1386.7
2.5°	1480.4	1471.4
5°	1904.0	1912.9
7.5°	2563.8	2559.4
10°	3188.1	3228.2
12.5°	3642.9	3651.8
15°	3919.3	3937.2
17.5°	4026.4	4030.8
20°	4030.8	4021.9
22.5°	3981.8	3972.8
25°	3923.8	3919.3
27.5°	3870.3	3874.8
30°	3848.0	3861.4
32.5°	3848.0	3870.3
35°	3856.9	3879.2
37.5°	3852.5	3879.2
40°	3834.7	3865.8
42.5°	3785.6	3807.9
45°	3709.8	3736.6
47.5°	3611.7	3629.5
50°	3486.9	3504.7
52.5°	3330.8	3335.3
55°	3143.5	3161.4
57.5°	2942.8	2947.3
60°	2719.9	2733.3
62.5°	2483.6	2483.6
65°	2233.9	2242.8
67.5°	1975.3	1997.6
70°	1712.2	1716.6
72.5°	1453.6	1453.6
75°	1186.1	1190.5
77.5°	931.9	931.9
80°	691.1	695.6
82.5°	477.1	486.1
85°	298.7	298.7
87.5°	138.2	124.8
90°	62.4	62.4
92.5°	250.1	200.5
95°	871.9	721.4
97.5°	2089.1	1802.8
100°	3010.0	2668.9
102.5°	3915.9	3623.7
105°	5070.9	4913.8
107.5°	5827.4	5865.3
110°	6115.9	6279.5





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	6141.6	6392.9
115°	5978.7	6327.1
117.5°	5633.4	6019.8
120°	5355.1	5730.6
122.5°	5084.2	5454.5
125°	4697.6	5038.7
127.5°	4350.0	4637.7
130°	4145.1	4410.9
132.5°	3959.1	4197.2
135°	3704.4	3909.7
137.5°	3500.1	3668.0
140°	3359.9	3516.9
142.5°	3243.7	3378.8
145°	3069.6	3171.8
147.5°	2935.9	3020.6
150°	2851.7	2920.4
152.5°	2779.7	2831.6
155°	2697.0	2731.3
157.5°	2631.7	2655.7
160°	2592.6	2606.4
162.5°	2567.0	2580.2
165°	2530.1	2544.0
167.5°	2503.6	2509.5
170°	2496.3	2496.3
172.5°	2476.8	2471.7
175°	2465.1	2465.1
177.5°	2454.5	2448.7
180°	2448.7	2448.7



TEST NUMBER: P938553  
 CATALOG NUMBER: SQ4-FB-150U-125D-93050-1D-UNV-STD-W-12-3000K

**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	5.12	5.93	6.15	6.97	8.37	18.31	19.12	19.34	20.16	21.56
	3H	5.82	6.55	6.86	7.60	9.01	20.15	20.88	21.19	21.93	23.35
	4H	6.11	6.80	7.17	7.86	9.28	20.80	21.49	21.85	22.54	23.96
	6H	6.36	7.00	7.42	8.05	9.49	21.23	21.86	22.29	22.92	24.36
	8H	6.43	7.03	7.49	8.11	9.54	21.35	21.96	22.42	23.03	24.46
	12H	6.44	7.02	7.52	8.09	9.54	21.42	22.00	22.49	23.06	24.52
4H	2H	12.33	13.02	13.39	14.08	15.50	18.58	19.27	19.63	20.32	21.74
	3H	13.90	14.47	14.96	15.55	16.99	20.62	21.20	21.69	22.28	23.72
	4H	13.99	14.52	15.06	15.59	17.05	21.39	21.92	22.46	22.99	24.45
	6H	14.00	14.45	15.08	15.55	17.00	21.93	22.39	23.01	23.48	24.94
	8H	13.97	14.40	15.05	15.48	16.96	22.09	22.52	23.18	23.61	25.08
	12H	13.93	14.31	15.03	15.41	16.89	22.19	22.57	23.29	23.67	25.15
8H	4H	15.43	15.86	16.51	16.94	18.42	21.45	21.87	22.53	22.96	24.43
	6H	15.67	16.03	16.78	17.15	18.62	22.08	22.43	23.18	23.56	25.03
	8H	15.69	16.00	16.80	17.11	18.60	22.30	22.61	23.41	23.72	25.21
	12H	15.66	15.93	16.77	17.03	18.56	22.44	22.72	23.56	23.82	25.35
12H	4H	15.57	15.96	16.67	17.06	18.54	21.40	21.78	22.50	22.88	24.36
	6H	15.93	16.24	17.04	17.35	18.84	22.06	22.37	23.17	23.48	24.97
	8H	16.00	16.27	17.11	17.38	18.90	22.29	22.56	23.41	23.67	25.19