

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: P938077

Luminaire Tested: SQ4-FB-125U-100D-B2750-1D-UNV-STD-W-12-2700K

Issue Date: 12/17/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P938077  
REPORT IS A COMBINATION OF REPORTS P933591 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-125U-100D-B2750-1D-UNV-STD-W-12-2700K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

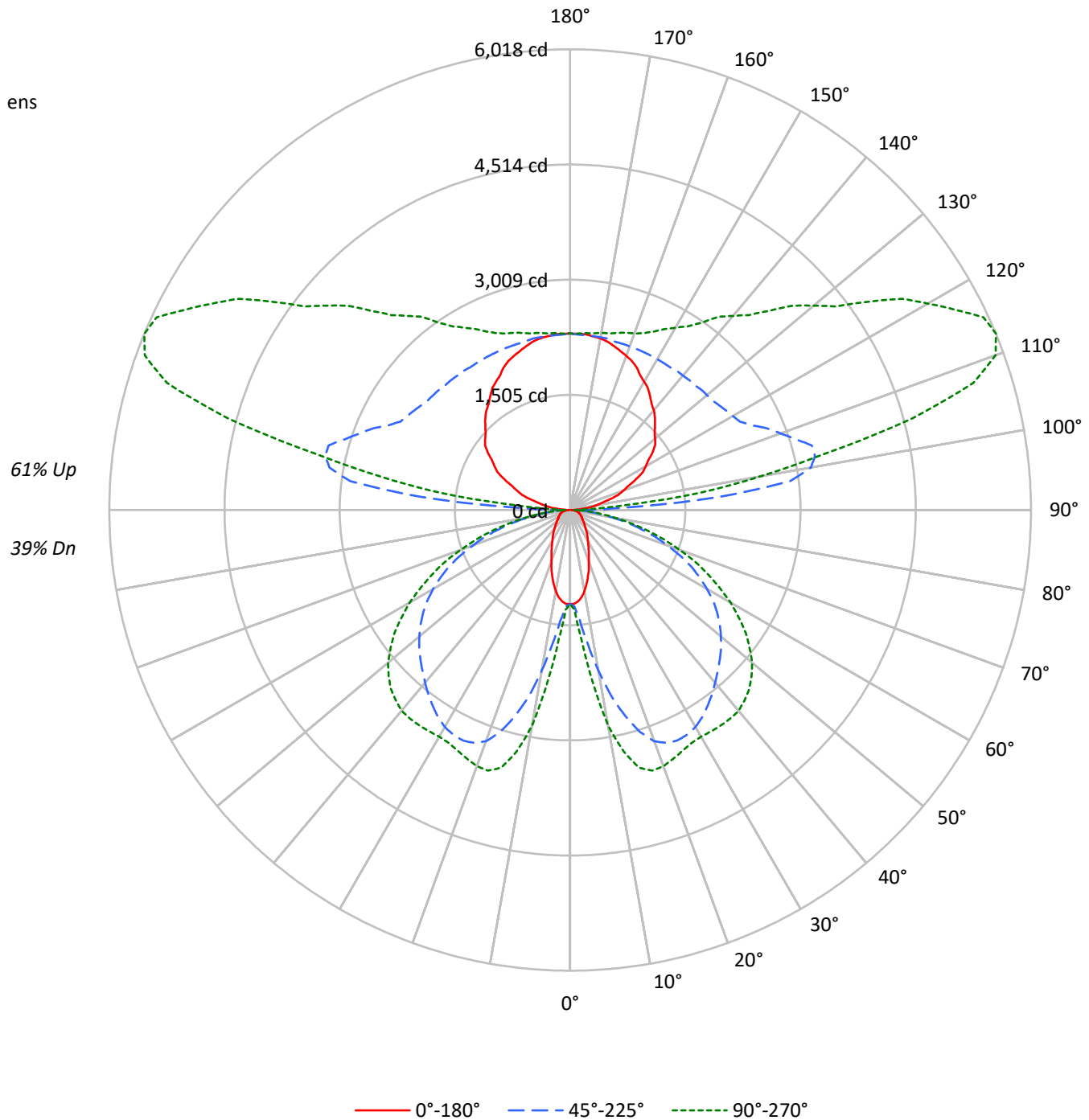
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 24449.8 lumens  
Efficiency: N/A  
Efficacy: 126.6 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): 193.2  
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	50	30	10
RCR																				
0	104	104	104	104	95	95	95	95	77	77	77	61	61	61	46	46	46	39		
1	95	90	86	83	86	82	79	76	67	65	62	53	51	50	40	39	38	32		
2	86	78	72	67	78	71	66	61	58	54	51	46	43	41	35	33	31	26		
3	78	68	61	55	71	62	56	51	51	46	42	40	37	34	30	28	26	21		
4	71	60	52	46	64	55	48	42	45	40	35	35	32	29	27	24	22	18		
5	65	53	45	39	59	49	41	36	40	34	30	31	27	24	24	21	19	15		
6	60	47	39	33	54	43	36	31	35	30	26	28	24	21	21	18	16	13		
7	55	43	35	29	50	39	32	27	32	26	23	25	21	18	19	16	14	11		
8	51	38	31	25	46	35	28	23	29	24	20	23	19	16	18	15	13	10		
9	47	35	27	22	43	32	25	21	26	21	17	21	17	14	16	13	11	9		
10	44	32	25	20	40	29	23	18	24	19	16	19	15	13	15	12	10	8		

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

	0°	45°	90°
0°	3798	3798	3798
5°	3711	4390	5104
10°	3368	6401	8462
15°	2863	8365	10218
20°	2332	9696	10414
25°	1946	10149	10202
30°	1641	10216	10183
35°	1452	10049	10446
40°	1266	9831	10719
45°	1147	9672	10760
50°	1053	9530	10582
55°	1010	9321	10113
60°	1035	8916	9373
65°	1079	8298	8355
70°	1152	7242	7058
75°	1282	5910	5508
80°	1410	4104	3711
85°	1277	2180	1900

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 10760 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	158.8	0.6
10°-20°	703.9	2.9
20°-30°	1231.2	5.0
30°-40°	1584.9	6.5
40°-50°	1770.3	7.2
50°-60°	1695.5	6.9
60°-70°	1343.7	5.5
70°-80°	790.1	3.2
80°-90°	228.3	0.9
90°-100°	1123.6	4.6
100°-110°	2954.1	12.1
110°-120°	3063.1	12.5
120°-130°	2457.0	10.0
130°-140°	1927.8	7.9
140°-150°	1479.7	6.1
150°-160°	1065.6	4.4
160°-170°	652.0	2.7
170°-180°	220.3	0.9
0°-30°	2093.9	8.6
0°-40°	3678.8	15.0
0°-60°	7144.5	29.2
0°-90°	9506.6	38.9
90°-120°	7140.8	29.2
90°-150°	13005.2	53.2
90°-180°	14943.0	61.1
0°-180°	24449.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1228	1228	1228	1228	1228	
5°	1196	1283	1445	1634	1694	110
15°	896	1654	2787	3379	3486	249
25°	572	1875	3320	3466	3470	264
35°	387	1792	3127	3304	3434	242
45°	264	1429	2763	3166	3308	205
55°	190	908	2345	2724	2799	173
65°	150	482	1741	1958	1986	149
75°	111	296	955	1050	1054	116
85°	39	91	237	261	264	42
90°	15	43	118	59	59	15
95°	148	582	1935	998	679	165
105°	532	806	3266	4958	4626	564
115°	945	1148	2616	5218	5956	934
125°	1315	1474	2379	4021	4743	1167
135°	1567	1725	2305	3246	3680	1213
145°	1818	1934	2276	2769	2986	1139
155°	2054	2112	2276	2498	2571	944
165°	2217	2246	2276	2365	2395	626
175°	2305	2305	2291	2321	2321	219
180°	2305	2305	2305	2305	2305	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1227.8	1227.8	1227.8	1227.8	1227.8	1227.8	1227.8	1227.8	1227.8	1227.8	1227.8
2.5°	1227.8	1227.8	1235.6	1239.6	1247.5	1251.5	1259.3	1267.2	1290.9	1294.9	1302.8
5°	1196.2	1211.9	1263.3	1283.0	1338.3	1413.3	1444.9	1496.2	1602.8	1634.3	1654.1
7.5°	1148.8	1184.3	1310.6	1342.2	1480.4	1677.8	1760.7	1871.2	2041.0	2123.9	2191.0
10°	1073.8	1148.8	1373.8	1448.8	1673.9	1973.9	2127.9	2281.8	2538.4	2652.8	2696.3
12.5°	990.9	1113.2	1440.9	1543.6	1867.3	2305.4	2491.0	2660.8	2952.9	3106.9	3130.5
15°	896.1	1061.9	1504.1	1654.1	2072.6	2581.8	2787.1	2996.4	3268.8	3379.2	3406.9
17.5°	813.2	1022.5	1563.3	1721.2	2230.4	2830.5	3039.8	3213.5	3434.5	3509.5	3529.3
20°	710.5	959.3	1602.8	1808.0	2396.3	3012.1	3213.5	3347.7	3497.7	3545.1	3552.9
22.5°	635.5	892.2	1626.5	1839.6	2506.8	3122.7	3292.4	3399.0	3501.6	3517.5	3521.4
25°	572.4	817.2	1622.5	1875.2	2601.6	3189.8	3320.1	3399.0	3458.2	3466.1	3466.1
27.5°	513.2	734.3	1606.7	1883.0	2672.7	3205.5	3308.2	3363.5	3391.1	3406.9	3406.9
30°	461.8	655.4	1567.2	1867.3	2704.2	3189.8	3272.7	3300.3	3327.9	3351.6	3363.5
32.5°	422.4	580.3	1508.0	1835.7	2708.1	3150.3	3209.5	3225.3	3264.8	3320.1	3339.8
35°	386.8	505.3	1440.9	1792.3	2684.4	3087.1	3126.6	3142.4	3221.4	3304.2	3331.9
37.5°	351.4	450.1	1354.1	1717.3	2649.0	3012.1	3039.8	3067.4	3189.8	3288.5	3320.1
40°	315.8	402.7	1251.5	1634.3	2593.7	2921.4	2945.0	2988.4	3150.3	3264.8	3296.4
42.5°	288.1	363.2	1140.9	1547.5	2522.6	2818.7	2854.2	2917.4	3102.9	3225.3	3260.8
45°	264.5	323.7	1022.5	1429.1	2431.8	2712.1	2763.4	2850.3	3047.7	3166.1	3197.7
47.5°	240.8	296.1	900.1	1306.8	2333.1	2605.5	2672.7	2771.3	2972.7	3087.1	3114.8
50°	221.1	268.4	777.7	1176.5	2226.6	2491.0	2570.0	2672.7	2877.9	2984.5	3020.1
52.5°	205.3	244.7	663.2	1046.2	2104.1	2372.6	2463.4	2570.0	2763.4	2866.1	2889.8
55°	189.5	225.0	564.5	908.0	1977.9	2246.3	2345.0	2447.6	2637.1	2724.0	2739.7
57.5°	181.6	209.3	481.7	777.7	1843.6	2104.1	2214.7	2309.4	2487.1	2554.1	2570.0
60°	169.7	197.4	418.4	667.1	1697.5	1969.9	2064.7	2159.4	2309.4	2364.7	2376.6
62.5°	157.9	189.5	371.1	560.5	1547.5	1812.0	1906.7	1993.6	2120.0	2159.4	2175.2
65°	150.0	181.6	335.6	481.7	1393.6	1646.2	1740.9	1816.0	1918.6	1958.0	1966.0
67.5°	142.1	173.7	308.0	414.5	1239.6	1480.4	1551.5	1622.5	1701.5	1740.9	1744.9
70°	130.3	165.8	284.3	367.1	1081.7	1290.9	1350.2	1425.2	1488.3	1508.0	1519.9
72.5°	122.4	154.0	268.4	331.6	919.8	1109.3	1164.6	1208.0	1263.3	1283.0	1283.0
75°	110.6	138.1	252.7	296.1	754.0	908.0	955.4	998.8	1042.2	1050.1	1038.2
77.5°	98.7	122.4	217.1	248.7	588.2	718.5	758.0	781.7	817.2	825.1	829.1
80°	82.9	106.6	169.7	193.4	426.4	529.0	556.7	576.4	608.0	608.0	615.8
82.5°	63.1	82.9	122.4	138.1	288.1	363.2	386.8	398.7	418.4	418.4	418.4
85°	39.4	51.3	79.0	90.8	173.7	221.1	236.8	240.8	256.6	260.6	260.6
87.5°	19.7	27.6	51.3	55.3	90.8	114.4	114.4	122.4	122.4	118.4	114.4
90°	15.4	27.8	40.2	43.3	68.0	101.0	117.5	104.5	78.4	58.8	58.8
92.5°	61.9	167.0	272.3	298.6	419.8	581.4	662.1	580.3	416.6	293.9	282.3
95°	148.5	341.0	533.6	581.7	1032.9	1634.5	1935.3	1727.0	1310.3	997.9	962.4
97.5°	256.8	426.6	596.5	638.9	1391.3	2394.5	2896.1	2764.4	2501.1	2303.5	2236.1
100°	340.3	494.4	648.4	686.9	1521.8	2635.0	3191.6	3201.2	3220.5	3234.9	3154.6
102.5°	411.5	555.3	698.9	734.8	1581.6	2710.6	3275.1	3442.9	3778.4	4030.1	3961.4
105°	532.2	653.9	775.6	806.1	1626.0	2719.2	3265.8	3641.9	4394.2	4958.3	4921.3
107.5°	656.0	769.4	882.9	911.2	1634.2	2598.3	3080.2	3604.8	4654.0	5440.9	5449.9
110°	739.5	841.9	944.4	970.0	1621.8	2490.9	2925.5	3512.0	4685.0	5564.8	5603.3



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	821.5	919.1	1016.7	1041.1	1622.3	2397.3	2784.7	3385.0	4585.5	5485.9	5545.0
115°	945.2	1035.2	1125.4	1147.9	1637.3	2289.8	2616.1	3194.4	4350.8	5218.2	5300.2
117.5°	1067.5	1149.3	1231.2	1251.6	1667.7	2222.6	2500.1	3022.0	4065.7	4848.4	4939.4
120°	1138.6	1215.6	1292.7	1311.9	1692.5	2200.0	2453.6	2930.5	3884.2	4599.4	4687.8
122.5°	1208.2	1285.9	1363.6	1383.0	1728.1	2188.1	2418.1	2847.5	3706.2	4350.3	4437.5
125°	1315.0	1385.8	1456.6	1474.4	1776.1	2178.3	2379.3	2744.1	3473.6	4020.8	4101.0
127.5°	1401.7	1473.2	1544.7	1562.5	1824.0	2172.6	2346.9	2660.0	3286.4	3756.2	3823.9
130°	1448.1	1525.1	1602.1	1621.3	1859.0	2176.1	2334.5	2613.3	3171.0	3589.2	3651.7
132.5°	1496.0	1573.0	1650.1	1669.3	1887.4	2178.3	2323.7	2573.3	3072.5	3446.9	3502.9
135°	1567.2	1637.3	1707.4	1725.0	1918.4	2176.3	2305.1	2514.2	2932.2	3245.8	3294.1
137.5°	1639.9	1709.3	1778.8	1796.1	1964.7	2189.6	2302.1	2478.7	2832.1	3097.2	3136.7
140°	1700.2	1764.1	1828.1	1844.1	1993.1	2191.8	2291.2	2443.8	2749.1	2978.0	3015.0
142.5°	1746.6	1805.7	1864.9	1879.7	2016.8	2199.8	2291.2	2425.3	2693.5	2894.6	2926.3
145°	1817.8	1869.4	1921.0	1933.8	2047.8	2199.8	2275.8	2385.4	2604.7	2769.2	2793.3
147.5°	1888.9	1939.1	1989.3	2001.9	2093.2	2214.9	2275.8	2362.0	2534.6	2664.0	2683.9
150°	1935.3	1980.7	2026.2	2037.5	2116.9	2222.8	2275.8	2348.7	2494.4	2603.6	2619.8
152.5°	1983.3	2017.7	2052.2	2060.7	2132.4	2228.0	2275.8	2338.0	2462.4	2555.7	2568.0
155°	2054.4	2079.9	2105.3	2111.7	2166.4	2239.3	2275.8	2325.3	2424.3	2498.5	2506.5
157.5°	2107.1	2131.8	2156.6	2162.8	2200.5	2250.7	2275.8	2314.2	2391.2	2449.0	2454.6
160°	2142.7	2161.9	2181.2	2186.0	2215.9	2255.8	2275.8	2308.7	2374.8	2424.3	2427.6
162.5°	2178.3	2192.7	2207.1	2210.7	2232.4	2261.3	2275.8	2303.6	2359.3	2401.1	2404.1
165°	2216.9	2229.9	2243.0	2246.3	2256.1	2269.2	2275.8	2295.7	2335.5	2365.4	2368.7
167.5°	2252.6	2258.7	2264.9	2266.4	2274.7	2285.7	2291.2	2304.2	2330.3	2350.0	2351.4
170°	2275.8	2281.9	2288.1	2289.6	2290.1	2290.8	2291.2	2304.2	2330.3	2350.0	2350.0
172.5°	2288.1	2289.5	2290.9	2291.2	2291.2	2291.2	2291.2	2301.6	2322.2	2337.6	2336.4
175°	2305.1	2305.1	2305.1	2305.1	2300.5	2294.3	2291.2	2297.8	2310.8	2320.6	2320.6
177.5°	2305.1	2305.1	2305.1	2305.1	2301.6	2296.7	2294.3	2299.5	2309.7	2317.5	2316.1
180°	2305.1	2305.1	2305.1	2305.1	2305.1	2305.1	2305.1	2305.1	2305.1	2305.1	2305.1



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	1227.8	1227.8
2.5°	1310.6	1302.8
5°	1685.7	1693.6
7.5°	2270.0	2266.0
10°	2822.7	2858.1
12.5°	3225.3	3233.2
15°	3470.1	3485.9
17.5°	3564.8	3568.8
20°	3568.8	3560.9
22.5°	3525.3	3517.5
25°	3474.0	3470.1
27.5°	3426.6	3430.6
30°	3406.9	3418.8
32.5°	3406.9	3426.6
35°	3414.8	3434.5
37.5°	3410.8	3434.5
40°	3395.1	3422.7
42.5°	3351.6	3371.4
45°	3284.5	3308.2
47.5°	3197.7	3213.5
50°	3087.1	3102.9
52.5°	2949.0	2952.9
55°	2783.1	2799.0
57.5°	2605.5	2609.4
60°	2408.1	2420.0
62.5°	2198.9	2198.9
65°	1977.9	1985.7
67.5°	1748.9	1768.6
70°	1515.9	1519.9
72.5°	1286.9	1286.9
75°	1050.1	1054.1
77.5°	825.1	825.1
80°	611.9	615.8
82.5°	422.4	430.3
85°	264.5	264.5
87.5°	122.4	110.6
90°	58.8	58.8
92.5°	235.5	188.7
95°	820.8	679.2
97.5°	1966.6	1697.1
100°	2833.5	2512.4
102.5°	3686.3	3411.3
105°	4773.5	4625.7
107.5°	5485.7	5521.4
110°	5757.3	5911.3





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	5781.5	6018.0
115°	5628.2	5956.2
117.5°	5303.1	5666.8
120°	5041.2	5394.5
122.5°	4786.1	5134.7
125°	4422.1	4743.3
127.5°	4094.9	4365.8
130°	3902.0	4152.3
132.5°	3727.0	3951.1
135°	3487.2	3680.4
137.5°	3294.9	3453.0
140°	3162.9	3310.7
142.5°	3053.5	3180.7
145°	2889.5	2985.8
147.5°	2763.7	2843.5
150°	2684.5	2749.2
152.5°	2616.8	2665.6
155°	2538.9	2571.2
157.5°	2477.4	2500.1
160°	2440.6	2453.6
162.5°	2416.5	2428.8
165°	2381.7	2394.9
167.5°	2356.8	2362.3
170°	2350.0	2350.0
172.5°	2331.5	2326.8
175°	2320.6	2320.6
177.5°	2310.6	2305.1
180°	2305.1	2305.1



TEST NUMBER: P938077  
 CATALOG NUMBER: SQ4-FB-125U-100D-B2750-1D-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	4.54	5.33	5.58	6.38	7.80	17.73	18.52	18.77	19.58	20.99
	3H	5.24	5.95	6.29	7.01	8.45	19.57	20.28	20.62	21.34	22.78
	4H	5.53	6.21	6.59	7.27	8.72	20.21	20.89	21.27	21.95	23.40
	6H	5.78	6.40	6.85	7.47	8.93	20.64	21.27	21.72	22.34	23.79
	8H	5.84	6.44	6.92	7.52	8.97	20.77	21.36	21.84	22.44	23.90
	12H	5.86	6.43	6.94	7.50	8.98	20.83	21.40	21.92	22.48	23.95
4H	2H	11.75	12.43	12.82	13.49	14.94	17.99	18.67	19.06	19.73	21.18
	3H	13.31	13.88	14.39	14.97	16.43	20.04	20.61	21.11	21.70	23.15
	4H	13.40	13.93	14.49	15.00	16.48	20.81	21.33	21.89	22.41	23.89
	6H	13.41	13.86	14.50	14.96	16.43	21.35	21.79	22.44	22.90	24.37
	8H	13.39	13.80	14.48	14.90	16.39	21.51	21.93	22.60	23.02	24.51
	12H	13.34	13.72	14.45	14.83	16.32	21.60	21.98	22.71	23.09	24.58
8H	4H	14.85	15.27	15.94	16.36	17.85	20.86	21.28	21.95	22.37	23.86
	6H	15.09	15.43	16.20	16.57	18.05	21.49	21.84	22.60	22.97	24.46
	8H	15.10	15.41	16.22	16.53	18.03	21.71	22.02	22.83	23.14	24.64
	12H	15.07	15.34	16.19	16.45	17.99	21.86	22.13	22.98	23.24	24.78
12H	4H	14.99	15.37	16.10	16.48	17.97	20.81	21.19	21.92	22.30	23.79
	6H	15.34	15.65	16.46	16.77	18.27	21.47	21.78	22.59	22.90	24.40
	8H	15.41	15.68	16.54	16.79	18.34	21.70	21.97	22.83	23.09	24.63