

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: P938577

Luminaire Tested: SQ4-FB-150U-125D-B2750-1D-UNV-STD-W-12-2700K

Issue Date: 12/17/2024

**Test Information**

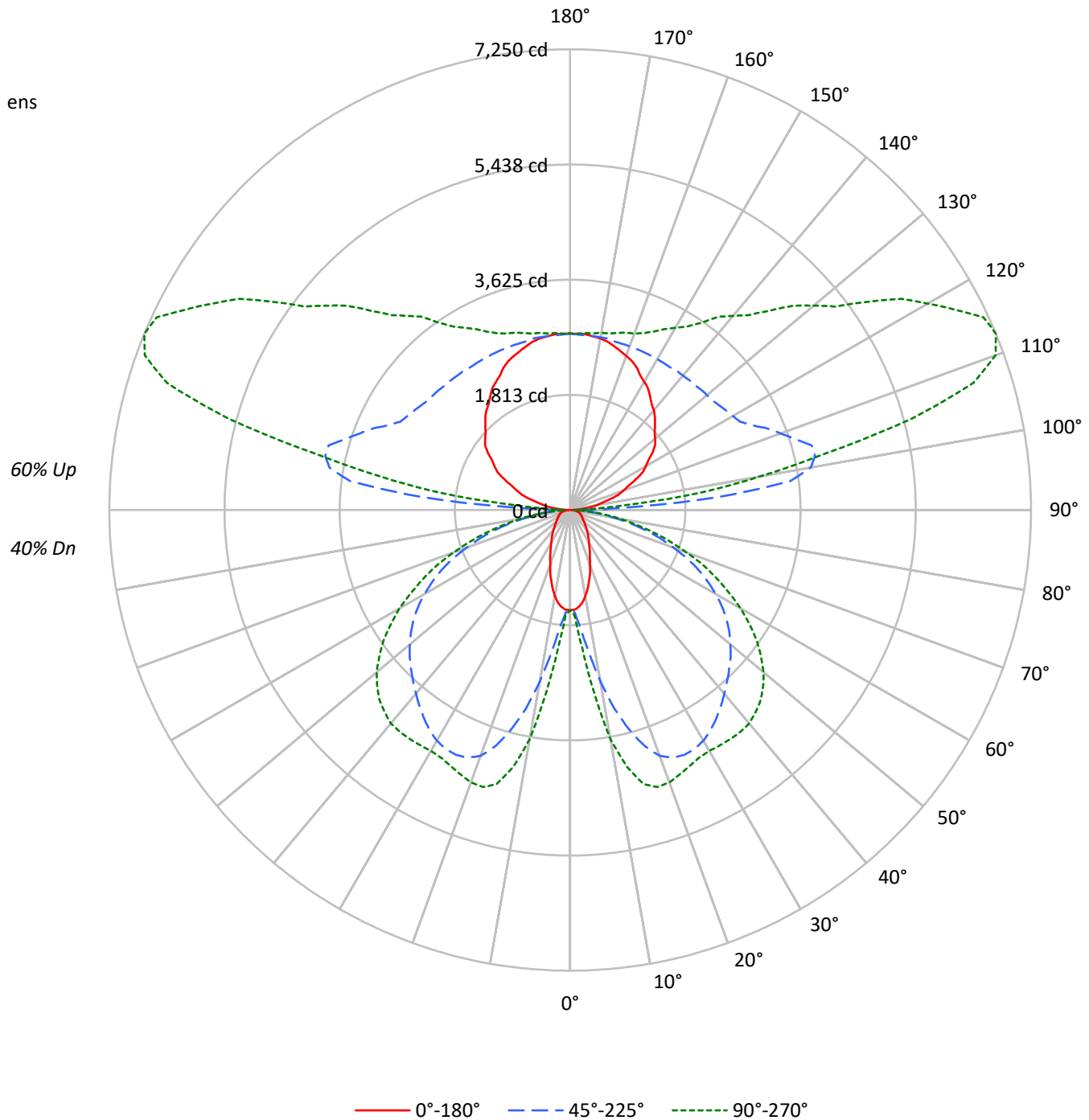
Test Method: LM-79-2019  
Report Number: P938577  
REPORT IS A COMBINATION OF REPORTS P933624 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-150U-125D-B2750-1D-UNV-STD-W-12-2700K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 30176.8 lumens  
Efficiency: N/A  
Efficacy: 120.9 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: General Diffuse  
  
Input Watts (W): 249.6  
Input Voltage (V): NR  
Input Current (Ain): 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°	4864	4864	4864
5°	4753	5623	6538
10°	4314	8199	10839
15°	3667	10714	13088
20°	2987	12419	13339
25°	2493	12999	13067
30°	2103	13085	13043
35°	1860	12871	13380
40°	1622	12592	13729
45°	1469	12389	13783
50°	1349	12207	13554
55°	1293	11939	12953
60°	1326	11420	12005
65°	1381	10628	10701
70°	1475	9275	9040
75°	1640	7570	7055
80°	1806	5255	4754
85°	1640	2794	2433

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 13783 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	203.4	0.7
10°-20°	901.5	3.0
20°-30°	1576.9	5.2
30°-40°	2030.0	6.7
40°-50°	2267.4	7.5
50°-60°	2171.7	7.2
60°-70°	1721.0	5.7
70°-80°	1012.0	3.4
80°-90°	291.7	1.0
90°-100°	1353.6	4.5
100°-110°	3558.6	11.8
110°-120°	3689.9	12.2
120°-130°	2959.7	9.8
130°-140°	2322.3	7.7
140°-150°	1782.5	5.9
150°-160°	1283.7	4.3
160°-170°	785.4	2.6
170°-180°	265.4	0.9
0°-30°	2681.9	8.9
0°-40°	4711.9	15.6
0°-60°	9150.9	30.3
0°-90°	12175.7	40.3
90°-120°	8602.0	28.5
90°-150°	15666.6	51.9
90°-180°	18001.0	59.7
0°-180°	30176.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1573	1573	1573	1573	1573	
5°	1532	1643	1851	2093	2169	141
15°	1148	2119	3570	4328	4465	319
25°	733	2402	4252	4440	4445	338
35°	496	2296	4005	4232	4399	309
45°	339	1830	3540	4055	4237	262
55°	243	1163	3004	3489	3585	221
65°	192	617	2230	2508	2543	190
75°	142	379	1224	1345	1350	148
85°	51	116	303	334	339	54
90°	19	52	142	71	71	19
95°	179	701	2331	1202	818	199
105°	641	971	3934	5973	5572	680
115°	1139	1383	3151	6286	7175	1125
125°	1584	1776	2866	4844	5714	1406
135°	1888	2078	2777	3910	4434	1461
145°	2190	2330	2741	3336	3597	1372
155°	2475	2544	2741	3010	3097	1137
165°	2671	2706	2741	2850	2885	754
175°	2777	2777	2760	2796	2796	264
180°	2777	2777	2777	2777	2777	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1572.6	1572.6	1572.6	1572.6	1572.6	1572.6	1572.6	1572.6	1572.6	1572.6	1572.6
2.5°	1572.6	1572.6	1582.6	1587.7	1597.8	1602.9	1613.0	1623.1	1653.5	1658.5	1668.6
5°	1532.0	1552.3	1618.0	1643.3	1714.1	1810.2	1850.7	1916.4	2052.9	2093.4	2118.6
7.5°	1471.4	1516.9	1678.8	1719.2	1896.2	2149.0	2255.1	2396.8	2614.2	2720.4	2806.3
10°	1375.4	1471.4	1759.6	1855.6	2143.9	2528.1	2725.4	2922.6	3251.2	3397.9	3453.5
12.5°	1269.2	1425.9	1845.6	1977.1	2391.7	2952.9	3190.6	3408.0	3782.2	3979.4	4009.7
15°	1147.8	1360.1	1926.5	2118.6	2654.6	3306.9	3569.8	3837.8	4186.7	4328.3	4363.7
17.5°	1041.6	1309.6	2002.4	2204.5	2856.8	3625.4	3893.5	4115.9	4399.0	4495.1	4520.4
20°	910.1	1228.7	2052.9	2315.8	3069.3	3858.0	4115.9	4287.8	4480.0	4540.7	4550.7
22.5°	814.0	1142.7	2083.2	2356.2	3210.8	3999.6	4217.1	4353.5	4485.0	4505.2	4510.3
25°	733.2	1046.7	2078.2	2401.8	3332.1	4085.6	4252.4	4353.5	4429.4	4439.5	4439.5
27.5°	657.4	940.5	2057.9	2411.9	3423.2	4105.8	4237.3	4308.0	4343.5	4363.7	4363.7
30°	591.6	839.3	2007.3	2391.7	3463.6	4085.6	4191.8	4227.1	4262.6	4292.9	4308.0
32.5°	541.0	743.3	1931.5	2351.3	3468.7	4035.0	4110.9	4131.1	4181.6	4252.4	4277.7
35°	495.5	647.2	1845.6	2295.6	3438.4	3954.1	4004.6	4024.9	4126.0	4232.2	4267.6
37.5°	450.0	576.4	1734.3	2199.6	3392.9	3858.0	3893.5	3928.8	4085.6	4212.0	4252.4
40°	404.5	515.7	1602.9	2093.4	3322.1	3741.8	3772.1	3827.7	4035.0	4181.6	4222.0
42.5°	369.1	465.2	1461.3	1982.1	3231.0	3610.3	3655.8	3736.7	3974.3	4131.1	4176.6
45°	338.7	414.6	1309.6	1830.4	3114.7	3473.7	3539.5	3650.7	3903.5	4055.2	4095.7
47.5°	308.5	379.3	1152.9	1673.7	2988.3	3337.2	3423.2	3549.5	3807.5	3954.1	3989.5
50°	283.2	343.8	996.1	1506.8	2851.8	3190.6	3291.7	3423.2	3686.1	3822.6	3868.2
52.5°	262.9	313.5	849.5	1339.9	2695.1	3038.9	3155.2	3291.7	3539.5	3671.0	3701.2
55°	242.7	288.2	723.1	1162.9	2533.2	2877.0	3003.5	3135.0	3377.6	3488.9	3509.1
57.5°	232.6	268.0	616.9	996.1	2361.3	2695.1	2836.6	2958.0	3185.5	3271.5	3291.7
60°	217.4	252.8	535.9	854.6	2174.3	2523.2	2644.5	2765.9	2958.0	3028.7	3044.0
62.5°	202.3	242.7	475.3	718.0	1982.1	2320.9	2442.2	2553.4	2715.3	2765.9	2786.1
65°	192.1	232.6	429.8	616.9	1784.9	2108.5	2229.8	2326.0	2457.4	2507.9	2518.1
67.5°	182.1	222.5	394.4	531.0	1587.7	1896.2	1987.1	2078.2	2179.3	2229.8	2234.9
70°	166.8	212.3	364.0	470.2	1385.4	1653.5	1729.3	1825.4	1906.2	1931.5	1946.7
72.5°	156.8	197.2	343.8	424.7	1178.2	1420.9	1491.6	1547.3	1618.0	1643.3	1643.3
75°	141.5	177.0	323.6	379.3	965.7	1162.9	1223.7	1279.3	1334.8	1345.0	1329.9
77.5°	126.4	156.8	278.1	318.5	753.4	920.3	970.8	1001.2	1046.7	1056.8	1061.8
80°	106.2	136.6	217.4	247.8	546.1	677.6	712.9	738.2	778.7	778.7	788.8
82.5°	80.9	106.2	156.8	177.0	369.1	465.2	495.5	510.6	535.9	535.9	535.9
85°	50.6	65.7	101.1	116.3	222.5	283.2	303.4	308.5	328.7	333.8	333.8
87.5°	25.3	35.4	65.7	70.8	116.3	146.6	146.6	156.8	156.8	151.7	146.6
90°	18.6	33.6	48.5	52.2	82.0	121.7	141.6	125.9	94.4	70.8	70.8
92.5°	74.5	201.2	328.0	359.7	505.7	700.3	797.6	699.0	501.9	354.1	340.0
95°	178.9	410.8	642.7	700.7	1244.3	1969.1	2331.4	2080.4	1578.6	1202.1	1159.4
97.5°	309.4	513.9	718.5	769.7	1676.1	2884.5	3488.7	3330.1	3012.9	2775.0	2693.8
100°	410.0	595.5	781.1	827.5	1833.2	3174.2	3844.7	3856.2	3879.4	3896.8	3800.1
102.5°	495.7	668.8	841.9	885.2	1905.2	3265.3	3945.4	4147.4	4551.6	4854.8	4771.9
105°	641.1	787.7	934.3	971.0	1958.7	3275.6	3934.1	4387.2	5293.3	5972.9	5928.4
107.5°	790.2	926.9	1063.5	1097.7	1968.6	3129.8	3710.5	4342.5	5606.4	6554.4	6565.1
110°	890.8	1014.2	1137.6	1168.5	1953.8	3000.6	3524.1	4230.7	5643.7	6703.5	6749.9



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	989.6	1107.3	1224.9	1254.3	1954.4	2887.8	3354.5	4077.6	5523.8	6608.5	6679.7
115°	1138.7	1247.2	1355.8	1382.8	1972.4	2758.4	3151.4	3848.0	5241.2	6286.1	6384.9
117.5°	1285.9	1384.4	1483.0	1507.6	2008.9	2677.3	3011.6	3640.3	4897.6	5840.6	5950.2
120°	1371.6	1464.4	1557.1	1580.4	2038.8	2650.1	2955.7	3530.1	4678.9	5540.5	5647.0
122.5°	1455.5	1549.1	1642.7	1666.1	2081.7	2635.8	2912.9	3430.1	4464.7	5240.6	5345.5
125°	1584.1	1669.4	1754.8	1776.1	2139.5	2624.1	2866.3	3305.7	4184.5	4843.5	4940.3
127.5°	1688.4	1774.6	1860.7	1882.2	2197.2	2617.2	2827.1	3204.4	3959.0	4524.9	4606.5
130°	1744.4	1837.1	1929.8	1953.1	2239.4	2621.3	2812.2	3148.1	3819.9	4323.6	4399.0
132.5°	1802.2	1894.9	1987.6	2010.8	2273.6	2624.0	2799.2	3099.9	3701.2	4152.2	4219.8
135°	1887.8	1972.3	2056.8	2078.0	2310.9	2621.6	2776.8	3028.6	3532.2	3909.9	3968.1
137.5°	1975.5	2059.1	2142.8	2163.7	2366.8	2637.6	2773.1	2985.9	3411.7	3731.0	3778.6
140°	2048.2	2125.2	2202.3	2221.5	2401.0	2640.3	2760.0	2943.9	3311.7	3587.5	3632.0
142.5°	2104.0	2175.3	2246.5	2264.3	2429.5	2649.9	2760.0	2921.6	3244.6	3486.9	3525.2
145°	2189.8	2252.0	2314.0	2329.5	2466.8	2649.9	2741.4	2873.5	3137.7	3335.9	3364.9
147.5°	2275.5	2335.9	2396.4	2411.5	2521.5	2668.1	2741.4	2845.4	3053.2	3209.2	3233.2
150°	2331.4	2386.1	2440.8	2454.4	2550.1	2677.6	2741.4	2829.2	3004.8	3136.5	3155.9
152.5°	2389.2	2430.6	2472.0	2482.3	2568.7	2683.8	2741.4	2816.4	2966.3	3078.7	3093.5
155°	2475.0	2505.6	2536.2	2543.9	2609.7	2697.5	2741.4	2801.1	2920.4	3009.8	3019.6
157.5°	2538.3	2568.1	2597.9	2605.3	2650.7	2711.1	2741.4	2787.8	2880.5	2950.2	2957.0
160°	2581.1	2604.3	2627.5	2633.3	2669.4	2717.4	2741.4	2781.1	2860.6	2920.3	2924.3
162.5°	2624.0	2641.4	2658.7	2663.1	2689.2	2724.0	2741.4	2775.0	2842.1	2892.4	2896.1
165°	2670.6	2686.3	2702.0	2706.0	2717.8	2733.5	2741.4	2765.4	2813.4	2849.5	2853.4
167.5°	2713.5	2721.0	2728.3	2730.2	2740.2	2753.4	2760.0	2775.8	2807.2	2830.8	2832.5
170°	2741.4	2748.9	2756.3	2758.2	2758.8	2759.6	2760.0	2775.8	2807.2	2830.8	2830.8
172.5°	2756.3	2757.9	2759.6	2760.0	2760.0	2760.0	2760.0	2772.5	2797.4	2816.0	2814.5
175°	2776.8	2776.8	2776.8	2776.8	2771.3	2763.8	2760.0	2767.9	2783.6	2795.5	2795.5
177.5°	2776.8	2776.8	2776.8	2776.8	2772.5	2766.7	2763.8	2770.0	2782.4	2791.7	2790.0
180°	2776.8	2776.8	2776.8	2776.8	2776.8	2776.8	2776.8	2776.8	2776.8	2776.8	2776.8



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	1572.6	1572.6
2.5°	1678.8	1668.6
5°	2159.1	2169.2
7.5°	2907.4	2902.3
10°	3615.3	3660.8
12.5°	4131.1	4141.2
15°	4444.6	4464.8
17.5°	4566.0	4570.9
20°	4570.9	4560.9
22.5°	4515.4	4505.2
25°	4449.6	4444.6
27.5°	4389.0	4394.1
30°	4363.7	4378.8
32.5°	4363.7	4389.0
35°	4373.7	4399.0
37.5°	4368.8	4399.0
40°	4348.5	4383.9
42.5°	4292.9	4318.2
45°	4206.9	4237.3
47.5°	4095.7	4115.9
50°	3954.1	3974.3
52.5°	3777.1	3782.2
55°	3564.8	3585.0
57.5°	3337.2	3342.3
60°	3084.4	3099.6
62.5°	2816.4	2816.4
65°	2533.2	2543.4
67.5°	2240.0	2265.3
70°	1941.7	1946.7
72.5°	1648.4	1648.4
75°	1345.0	1350.1
77.5°	1056.8	1056.8
80°	783.8	788.8
82.5°	541.0	551.2
85°	338.7	338.7
87.5°	156.8	141.5
90°	70.8	70.8
92.5°	283.7	227.4
95°	988.7	818.1
97.5°	2369.1	2044.4
100°	3413.4	3026.5
102.5°	4440.7	4109.3
105°	5750.4	5572.3
107.5°	6608.3	6651.3
110°	6935.4	7121.0





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	6964.6	7249.6
115°	6779.9	7175.0
117.5°	6388.3	6826.5
120°	6072.7	6498.5
122.5°	5765.5	6185.5
125°	5327.1	5714.0
127.5°	4932.9	5259.2
130°	4700.5	5002.0
132.5°	4489.7	4759.7
135°	4200.8	4433.6
137.5°	3969.2	4159.6
140°	3810.1	3988.2
142.5°	3678.4	3831.6
145°	3480.9	3596.9
147.5°	3329.3	3425.3
150°	3233.8	3311.7
152.5°	3152.2	3211.0
155°	3058.4	3097.4
157.5°	2984.3	3011.6
160°	2940.0	2955.7
162.5°	2911.0	2925.9
165°	2869.2	2884.9
167.5°	2839.1	2845.8
170°	2830.8	2830.8
172.5°	2808.7	2802.9
175°	2795.5	2795.5
177.5°	2783.4	2776.8
180°	2776.8	2776.8



TEST NUMBER: P938577  
 CATALOG NUMBER: SQ4-FB-150U-125D-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	5.55	6.36	6.58	7.41	8.81	18.75	19.56	19.77	20.60	22.00
	3H	6.26	6.98	7.29	8.03	9.45	20.59	21.31	21.63	22.36	23.78
	4H	6.55	7.24	7.60	8.29	9.72	21.23	21.92	22.28	22.98	24.40
	6H	6.80	7.44	7.86	8.49	9.93	21.67	22.30	22.73	23.36	24.80
	8H	6.87	7.47	7.93	8.54	9.98	21.79	22.39	22.85	23.47	24.90
	12H	6.88	7.46	7.95	8.52	9.98	21.86	22.43	22.93	23.50	24.96
4H	2H	12.77	13.46	13.83	14.51	15.94	19.01	19.70	20.07	20.76	22.18
	3H	14.33	14.91	15.40	15.99	17.43	21.06	21.64	22.13	22.72	24.16
	4H	14.43	14.96	15.50	16.03	17.49	21.83	22.36	22.90	23.43	24.89
	6H	14.43	14.89	15.51	15.98	17.44	22.37	22.82	23.45	23.92	25.37
	8H	14.41	14.83	15.49	15.92	17.39	22.53	22.96	23.61	24.04	25.52
	12H	14.36	14.75	15.46	15.85	17.32	22.63	23.01	23.73	24.11	25.59
8H	4H	15.87	16.30	16.95	17.38	18.85	21.88	22.31	22.96	23.40	24.87
	6H	16.11	16.46	17.21	17.59	19.06	22.51	22.87	23.62	24.00	25.46
	8H	16.13	16.44	17.24	17.55	19.03	22.74	23.05	23.85	24.16	25.64
	12H	16.09	16.36	17.21	17.47	19.00	22.88	23.15	24.00	24.26	25.79
12H	4H	16.01	16.40	17.11	17.50	18.97	21.83	22.22	22.93	23.32	24.80
	6H	16.37	16.68	17.48	17.79	19.28	22.50	22.81	23.61	23.92	25.40
	8H	16.44	16.71	17.55	17.81	19.34	22.73	23.00	23.84	24.11	25.63