

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: P938529

Luminaire Tested: SQ4-FB-150U-125D-92765-1D-UNV-STD-W-12-5000K

Issue Date: 12/17/2024

**Test Information**

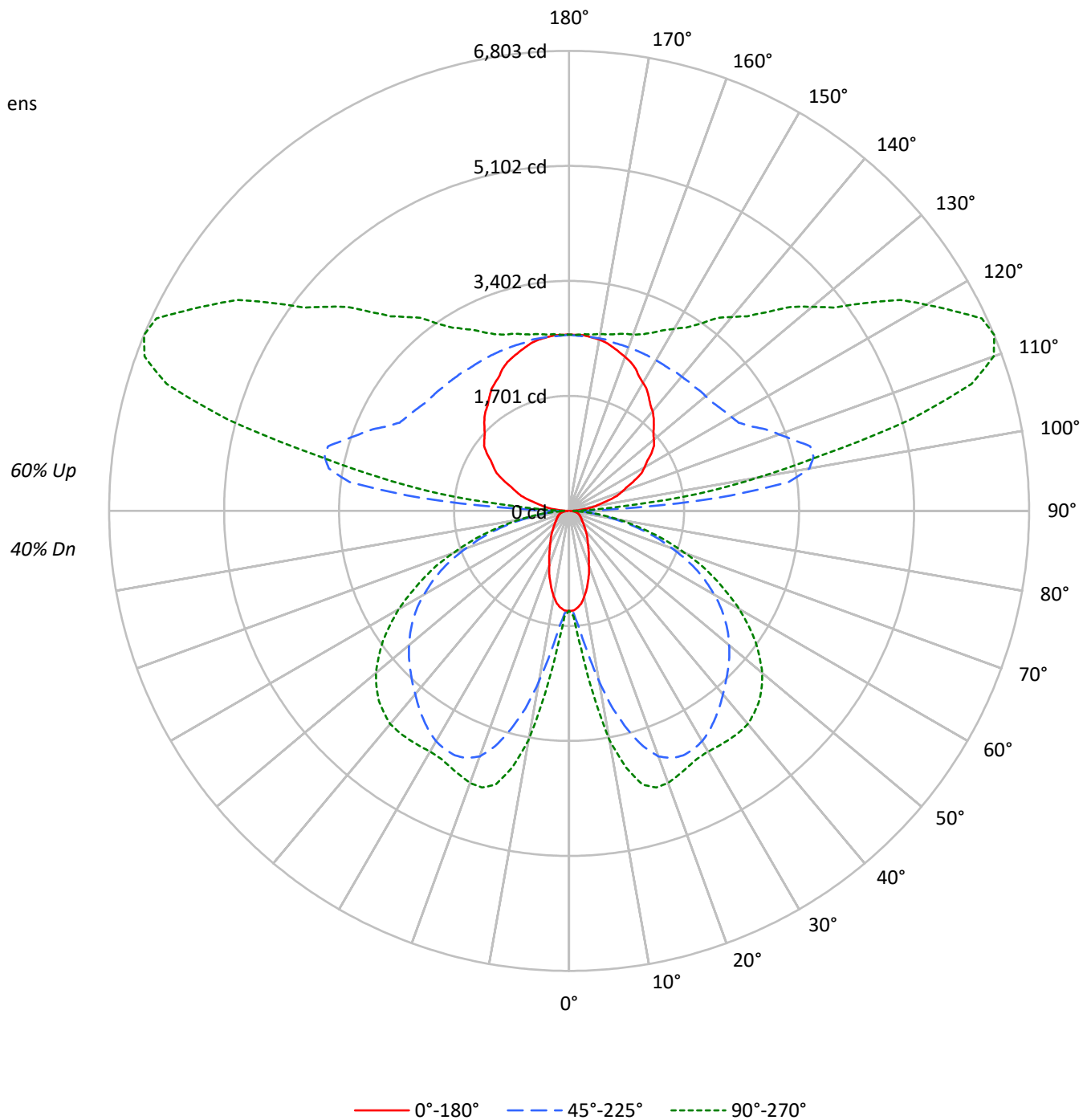
Test Method: LM-79-2019  
Report Number: P938529  
REPORT IS A COMBINATION OF REPORTS P933624 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-150U-125D-92765-1D-UNV-STD-W-12-5000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 28319.7 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: 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	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°	4565	4565	4565
5°	4461	5277	6136
10°	4048	7694	10172
15°	3442	10055	12282
20°	2803	11655	12518
25°	2339	12199	12263
30°	1973	12279	12240
35°	1746	12079	12556
40°	1522	11817	12884
45°	1379	11627	12934
50°	1266	11455	12720
55°	1214	11204	12156
60°	1244	10717	11266
65°	1296	9974	10043
70°	1385	8704	8484
75°	1539	7104	6621
80°	1694	4933	4461
85°	1539	2621	2283

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 12934 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	190.9	0.7
10°-20°	846.1	3.0
20°-30°	1479.9	5.2
30°-40°	1905.1	6.7
40°-50°	2127.9	7.5
50°-60°	2038.0	7.2
60°-70°	1615.1	5.7
70°-80°	949.7	3.4
80°-90°	273.8	1.0
90°-100°	1270.3	4.5
100°-110°	3339.6	11.8
110°-120°	3462.8	12.2
120°-130°	2777.6	9.8
130°-140°	2179.4	7.7
140°-150°	1672.8	5.9
150°-160°	1204.7	4.3
160°-170°	737.1	2.6
170°-180°	249.0	0.9
0°-30°	2516.8	8.9
0°-40°	4421.9	15.6
0°-60°	8587.8	30.3
0°-90°	11426.5	40.3
90°-120°	8072.7	28.5
90°-150°	14702.4	51.9
90°-180°	16893.0	59.7
0°-180°	28319.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1476	1476	1476	1476	1476	
5°	1438	1542	1737	1965	2036	133
15°	1077	1988	3350	4062	4190	300
25°	688	2254	3991	4166	4171	317
35°	465	2154	3758	3972	4128	290
45°	318	1718	3322	3806	3976	246
55°	228	1091	2819	3274	3364	208
65°	180	579	2093	2354	2387	179
75°	133	356	1148	1262	1267	139
85°	48	109	285	313	318	50
90°	18	49	133	66	66	18
95°	168	658	2188	1128	768	186
105°	602	911	3692	5605	5229	638
115°	1069	1298	2958	5899	6733	1055
125°	1487	1667	2690	4546	5362	1320
135°	1772	1950	2606	3669	4161	1371
145°	2055	2186	2573	3131	3376	1287
155°	2323	2387	2573	2825	2907	1067
165°	2506	2540	2573	2674	2707	707
175°	2606	2606	2590	2623	2623	247
180°	2606	2606	2606	2606	2606	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1475.8	1475.8	1475.8	1475.8	1475.8	1475.8	1475.8	1475.8	1475.8	1475.8	1475.8
2.5°	1475.8	1475.8	1485.2	1490.0	1499.5	1504.2	1513.8	1523.2	1551.7	1556.5	1565.9
5°	1437.8	1456.7	1518.4	1542.2	1608.6	1698.8	1736.8	1798.5	1926.5	1964.6	1988.2
7.5°	1380.8	1423.6	1575.4	1613.4	1779.5	2016.7	2116.4	2249.3	2453.3	2553.0	2633.6
10°	1290.7	1380.8	1651.3	1741.5	2012.0	2372.6	2557.6	2742.7	3051.2	3188.7	3241.0
12.5°	1191.1	1338.1	1732.0	1855.4	2244.5	2771.2	2994.2	3198.3	3549.5	3734.5	3762.9
15°	1077.2	1276.4	1807.9	1988.2	2491.3	3103.4	3350.1	3601.6	3929.0	4062.0	4095.1
17.5°	977.5	1229.0	1879.1	2068.9	2681.0	3402.3	3653.9	3862.6	4128.3	4218.5	4242.3
20°	854.1	1153.1	1926.5	2173.3	2880.4	3620.6	3862.6	4023.9	4204.3	4261.2	4270.7
22.5°	763.9	1072.4	1955.0	2211.2	3013.2	3753.5	3957.5	4085.6	4209.0	4228.0	4232.7
25°	688.0	982.3	1950.3	2254.0	3127.1	3834.2	3990.7	4085.6	4156.8	4166.3	4166.3
27.5°	616.9	882.6	1931.3	2263.5	3212.5	3853.1	3976.5	4042.9	4076.2	4095.1	4095.1
30°	555.2	787.7	1883.8	2244.5	3250.4	3834.2	3933.8	3967.0	4000.3	4028.7	4042.9
32.5°	507.7	697.6	1812.7	2206.6	3255.2	3786.7	3857.9	3876.9	3924.3	3990.7	4014.5
35°	465.0	607.4	1732.0	2154.3	3226.8	3710.8	3758.2	3777.2	3872.1	3971.8	4004.9
37.5°	422.3	540.9	1627.6	2064.2	3184.1	3620.6	3653.9	3687.0	3834.2	3952.8	3990.7
40°	379.6	484.0	1504.2	1964.6	3117.6	3511.5	3539.9	3592.2	3786.7	3924.3	3962.2
42.5°	346.4	436.6	1371.4	1860.2	3032.2	3388.1	3430.8	3506.7	3729.8	3876.9	3919.6
45°	317.9	389.1	1229.0	1717.8	2923.0	3260.0	3321.7	3426.1	3663.3	3805.7	3843.6
47.5°	289.5	355.9	1081.9	1570.7	2804.4	3131.8	3212.5	3331.1	3573.2	3710.8	3744.0
50°	265.7	322.7	934.8	1414.1	2676.3	2994.2	3089.1	3212.5	3459.3	3587.4	3630.1
52.5°	246.8	294.2	797.2	1257.5	2529.2	2851.9	2961.1	3089.1	3321.7	3445.0	3473.5
55°	227.8	270.5	678.6	1091.4	2377.3	2700.0	2818.7	2942.1	3169.8	3274.2	3293.2
57.5°	218.3	251.5	579.0	934.8	2216.0	2529.2	2662.0	2776.0	2989.5	3070.1	3089.1
60°	204.0	237.2	503.0	802.0	2040.5	2367.9	2481.7	2595.7	2776.0	2842.3	2856.6
62.5°	189.8	227.8	446.0	673.8	1860.2	2178.1	2291.9	2396.3	2548.2	2595.7	2614.7
65°	180.3	218.3	403.3	579.0	1675.1	1978.8	2092.6	2182.8	2306.2	2353.6	2363.1
67.5°	170.9	208.8	370.1	498.3	1490.0	1779.5	1864.8	1950.3	2045.2	2092.6	2097.4
70°	156.6	199.3	341.6	441.3	1300.2	1551.7	1622.8	1713.0	1788.9	1812.7	1826.9
72.5°	147.1	185.1	322.7	398.6	1105.7	1333.5	1399.8	1452.1	1518.4	1542.2	1542.2
75°	132.8	166.1	303.7	355.9	906.3	1091.4	1148.4	1200.5	1252.7	1262.2	1248.0
77.5°	118.6	147.1	261.0	298.9	707.0	863.7	911.1	939.6	982.3	991.7	996.5
80°	99.6	128.1	204.0	232.6	512.5	635.9	669.1	692.8	730.8	730.8	740.3
82.5°	75.9	99.6	147.1	166.1	346.4	436.6	465.0	479.2	503.0	503.0	503.0
85°	47.5	61.7	94.9	109.2	208.8	265.7	284.7	289.5	308.5	313.2	313.2
87.5°	23.7	33.2	61.7	66.5	109.2	137.6	137.6	147.1	147.1	142.4	137.6
90°	17.5	31.5	45.5	49.0	76.9	114.2	132.9	118.1	88.6	66.5	66.5
92.5°	69.9	188.8	307.8	337.5	474.6	657.2	748.5	656.0	471.0	332.3	319.1
95°	167.9	385.5	603.2	657.6	1167.7	1847.9	2188.0	1952.4	1481.4	1128.1	1088.1
97.5°	290.3	482.3	674.3	722.3	1572.9	2707.0	3274.0	3125.2	2827.5	2604.2	2528.0
100°	384.7	558.9	733.0	776.6	1720.4	2978.8	3608.1	3618.9	3640.7	3657.0	3566.3
102.5°	465.2	627.7	790.1	830.8	1788.0	3064.3	3702.6	3892.2	4271.5	4556.0	4478.3
105°	601.7	739.3	876.8	911.2	1838.2	3074.1	3692.0	4117.2	4967.6	5605.3	5563.6
107.5°	741.6	869.8	998.1	1030.1	1847.4	2937.2	3482.2	4075.2	5261.4	6151.0	6161.1
110°	836.0	951.8	1067.6	1096.6	1833.5	2816.0	3307.3	3970.4	5296.4	6290.9	6334.5



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	928.7	1039.1	1149.5	1177.1	1834.1	2710.1	3148.1	3826.7	5183.9	6201.8	6268.6
115°	1068.6	1170.4	1272.3	1297.7	1851.0	2588.7	2957.5	3611.2	4918.6	5899.2	5991.9
117.5°	1206.8	1299.2	1391.8	1414.9	1885.3	2512.6	2826.3	3416.3	4596.2	5481.2	5584.0
120°	1287.2	1374.3	1461.3	1483.1	1913.3	2487.0	2773.8	3312.9	4391.0	5199.6	5299.5
122.5°	1365.9	1453.7	1541.6	1563.6	1953.6	2473.6	2733.6	3219.0	4189.9	4918.0	5016.6
125°	1486.6	1566.7	1646.8	1666.8	2007.8	2462.6	2689.9	3102.3	3927.0	4545.5	4636.2
127.5°	1584.5	1665.4	1746.2	1766.4	2062.0	2456.1	2653.2	3007.2	3715.4	4246.5	4323.0
130°	1637.0	1724.1	1811.1	1832.9	2101.6	2460.0	2639.1	2954.3	3584.8	4057.6	4128.3
132.5°	1691.3	1778.3	1865.3	1887.1	2133.7	2462.5	2626.9	2909.1	3473.5	3896.7	3960.1
135°	1771.6	1850.9	1930.3	1950.1	2168.7	2460.2	2606.0	2842.3	3314.8	3669.3	3723.9
137.5°	1853.9	1932.4	2010.9	2030.6	2221.1	2475.3	2602.4	2802.2	3201.7	3501.4	3546.1
140°	1922.1	1994.4	2066.7	2084.8	2253.2	2477.8	2590.2	2762.7	3107.9	3366.7	3408.5
142.5°	1974.6	2041.4	2108.2	2125.0	2280.0	2486.8	2590.2	2741.8	3044.9	3272.3	3308.3
145°	2055.0	2113.4	2171.6	2186.2	2315.0	2486.8	2572.7	2696.6	2944.6	3130.6	3157.8
147.5°	2135.4	2192.2	2248.9	2263.1	2366.3	2503.9	2572.7	2670.3	2865.3	3011.7	3034.2
150°	2188.0	2239.3	2290.6	2303.4	2393.1	2512.9	2572.7	2655.1	2819.9	2943.5	2961.7
152.5°	2242.2	2281.1	2319.8	2329.6	2410.6	2518.7	2572.7	2643.1	2783.7	2889.3	2903.1
155°	2322.7	2351.4	2380.1	2387.3	2449.1	2531.5	2572.7	2628.7	2740.7	2824.6	2833.7
157.5°	2382.1	2410.0	2438.0	2445.0	2487.5	2544.3	2572.7	2616.2	2703.3	2768.6	2775.0
160°	2422.3	2444.1	2465.8	2471.3	2505.1	2550.2	2572.7	2610.0	2684.6	2740.6	2744.3
162.5°	2462.5	2478.8	2495.1	2499.2	2523.7	2556.3	2572.7	2604.2	2667.2	2714.4	2717.8
165°	2506.2	2521.0	2535.8	2539.5	2550.5	2565.3	2572.7	2595.2	2640.3	2674.1	2677.8
167.5°	2546.5	2553.5	2560.4	2562.2	2571.6	2584.0	2590.2	2604.9	2634.5	2656.6	2658.2
170°	2572.7	2579.7	2586.7	2588.5	2589.0	2589.8	2590.2	2604.9	2634.5	2656.6	2656.6
172.5°	2586.7	2588.2	2589.8	2590.2	2590.2	2590.2	2590.2	2601.8	2625.2	2642.7	2641.3
175°	2606.0	2606.0	2606.0	2606.0	2600.7	2593.7	2590.2	2597.5	2612.3	2623.4	2623.4
177.5°	2606.0	2606.0	2606.0	2606.0	2601.8	2596.4	2593.7	2599.5	2611.2	2619.9	2618.3
180°	2606.0	2606.0	2606.0	2606.0	2606.0	2606.0	2606.0	2606.0	2606.0	2606.0	2606.0



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	1475.8	1475.8
2.5°	1575.4	1565.9
5°	2026.3	2035.7
7.5°	2728.5	2723.7
10°	3392.8	3435.5
12.5°	3876.9	3886.3
15°	4171.0	4190.0
17.5°	4285.0	4289.6
20°	4289.6	4280.2
22.5°	4237.5	4228.0
25°	4175.8	4171.0
27.5°	4118.9	4123.6
30°	4095.1	4109.3
32.5°	4095.1	4118.9
35°	4104.6	4128.3
37.5°	4099.9	4128.3
40°	4080.9	4114.1
42.5°	4028.7	4052.4
45°	3948.0	3976.5
47.5°	3843.6	3862.6
50°	3710.8	3729.8
52.5°	3544.7	3549.5
55°	3345.4	3364.4
57.5°	3131.8	3136.6
60°	2894.6	2908.8
62.5°	2643.1	2643.1
65°	2377.3	2386.9
67.5°	2102.2	2125.9
70°	1822.2	1826.9
72.5°	1546.9	1546.9
75°	1262.2	1267.0
77.5°	991.7	991.7
80°	735.5	740.3
82.5°	507.7	517.3
85°	317.9	317.9
87.5°	147.1	132.8
90°	66.5	66.5
92.5°	266.2	213.4
95°	927.9	767.8
97.5°	2223.3	1918.6
100°	3203.3	2840.3
102.5°	4167.4	3856.4
105°	5396.5	5229.4
107.5°	6201.6	6242.0
110°	6508.6	6682.8





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	6536.0	6803.4
115°	6362.6	6733.4
117.5°	5995.2	6406.4
120°	5699.0	6098.6
122.5°	5410.7	5804.8
125°	4999.3	5362.3
127.5°	4629.3	4935.5
130°	4411.3	4694.2
132.5°	4213.4	4466.8
135°	3942.3	4160.8
137.5°	3724.9	3903.6
140°	3575.6	3742.7
142.5°	3452.1	3595.8
145°	3266.7	3375.5
147.5°	3124.4	3214.5
150°	3034.8	3107.9
152.5°	2958.3	3013.4
155°	2870.2	2906.7
157.5°	2800.7	2826.3
160°	2759.1	2773.8
162.5°	2731.9	2745.9
165°	2692.6	2707.4
167.5°	2664.4	2670.6
170°	2656.6	2656.6
172.5°	2635.9	2630.4
175°	2623.4	2623.4
177.5°	2612.1	2606.0
180°	2606.0	2606.0



TEST NUMBER: P938529  
 CATALOG NUMBER: SQ4-FB-150U-125D-92765-1D-UNV-STD-W-12-5000K

**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	5.33	6.14	6.36	7.19	8.59	18.53	19.34	19.55	20.38	21.78
	3H	6.04	6.76	7.07	7.81	9.23	20.37	21.09	21.40	22.14	23.56
	4H	6.33	7.02	7.38	8.07	9.50	21.01	21.70	22.06	22.75	24.18
	6H	6.58	7.21	7.64	8.27	9.71	21.44	22.08	22.51	23.14	24.58
	8H	6.64	7.25	7.71	8.32	9.76	21.57	22.17	22.63	23.24	24.68
	12H	6.66	7.24	7.73	8.30	9.76	21.64	22.21	22.71	23.28	24.74
4H	2H	12.55	13.24	13.61	14.29	15.72	18.79	19.48	19.85	20.53	21.96
	3H	14.11	14.69	15.18	15.77	17.21	20.84	21.42	21.90	22.50	23.94
	4H	14.21	14.74	15.28	15.81	17.27	21.61	22.14	22.68	23.21	24.67
	6H	14.21	14.67	15.29	15.76	17.22	22.15	22.60	23.23	23.70	25.15
	8H	14.19	14.61	15.27	15.70	17.17	22.31	22.74	23.39	23.82	25.29
	12H	14.14	14.53	15.24	15.63	17.10	22.40	22.79	23.50	23.89	25.37
8H	4H	15.65	16.08	16.73	17.16	18.63	21.66	22.09	22.74	23.17	24.65
	6H	15.89	16.24	16.99	17.37	18.84	22.29	22.65	23.40	23.77	25.24
	8H	15.91	16.22	17.02	17.33	18.81	22.52	22.83	23.63	23.94	25.42
	12H	15.87	16.14	16.99	17.25	18.78	22.66	22.93	23.78	24.04	25.57
12H	4H	15.79	16.18	16.89	17.28	18.75	21.61	22.00	22.71	23.10	24.57
	6H	16.15	16.46	17.26	17.57	19.06	22.28	22.59	23.39	23.70	25.18
	8H	16.21	16.49	17.33	17.59	19.12	22.51	22.78	23.62	23.89	25.41