

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: P938530

Luminaire Tested: SQ4-FB-150U-125D-92765-1D-UNV-STD-W-12-6500K

Issue Date: 12/17/2024

**Test Information**

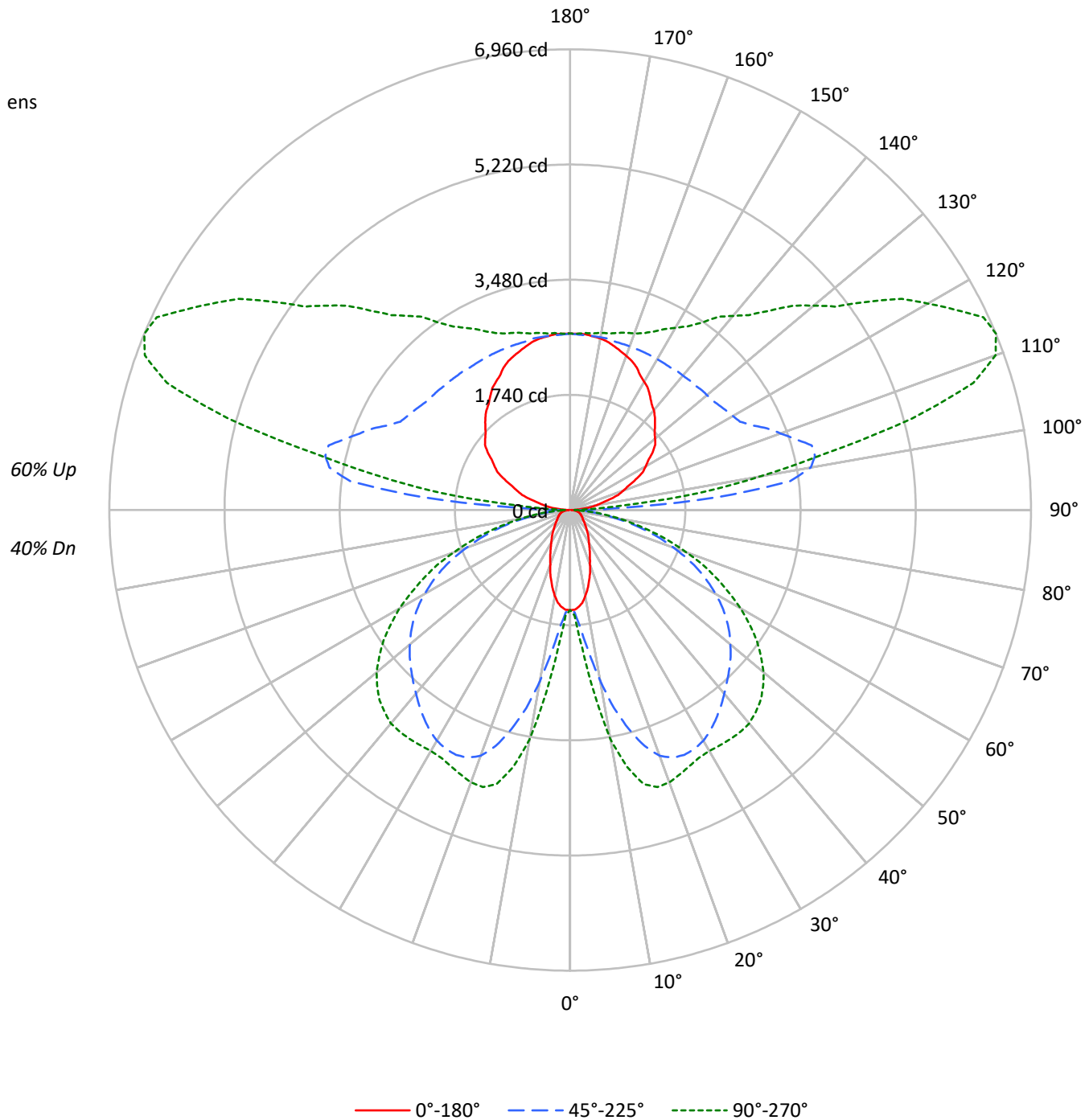
Test Method: LM-79-2019  
Report Number: P938530  
REPORT IS A COMBINATION OF REPORTS P933624 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-150U-125D-92765-1D-UNV-STD-W-12-6500K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 28970.7 lumens  
Efficiency: N/A  
Efficacy: 116.1 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	50	30	10	0
RCR																					
0	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	47	47	47	40
1	95	91	87	83	86	83	79	76	68	65	63	54	52	51	41	40	39	39	39	39	33
2	86	79	72	67	78	72	66	62	59	55	51	47	44	42	36	34	32	32	32	32	27
3	78	69	61	55	71	63	56	51	51	47	43	41	37	35	31	29	27	27	27	27	22
4	71	60	52	46	65	55	48	43	45	40	36	36	32	29	27	25	23	23	23	23	19
5	65	53	45	39	59	49	42	36	40	35	30	32	28	25	24	22	19	19	19	19	16
6	60	48	39	34	54	44	36	31	36	30	26	29	25	21	22	19	17	17	17	17	14
7	55	43	35	29	50	39	32	27	32	27	23	26	22	19	20	17	15	15	15	15	12
8	51	39	31	25	46	35	28	24	29	24	20	23	19	16	18	15	13	13	13	13	10
9	47	35	27	22	43	32	25	21	27	21	18	21	17	15	17	14	11	11	11	11	9
10	44	32	25	20	40	29	23	18	24	19	16	20	16	13	15	12	10	10	10	10	8

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

	0°	45°	90°
0°	4670	4670	4670
5°	4563	5399	6277
10°	4141	7871	10406
15°	3521	10286	12565
20°	2867	11923	12805
25°	2393	12480	12545
30°	2019	12562	12521
35°	1786	12356	12845
40°	1557	12089	13180
45°	1411	11894	13232
50°	1295	11719	13013
55°	1242	11462	12436
60°	1273	10963	11525
65°	1326	10203	10273
70°	1416	8904	8679
75°	1575	7267	6773
80°	1733	5045	4564
85°	1575	2682	2336

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 13232 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	195.3	0.7
10°-20°	865.5	3.0
20°-30°	1513.9	5.2
30°-40°	1948.8	6.7
40°-50°	2176.8	7.5
50°-60°	2084.9	7.2
60°-70°	1652.3	5.7
70°-80°	971.6	3.4
80°-90°	280.1	1.0
90°-100°	1299.5	4.5
100°-110°	3416.4	11.8
110°-120°	3542.4	12.2
120°-130°	2841.4	9.8
130°-140°	2229.5	7.7
140°-150°	1711.2	5.9
150°-160°	1232.4	4.3
160°-170°	754.0	2.6
170°-180°	254.8	0.9
0°-30°	2574.7	8.9
0°-40°	4523.5	15.6
0°-60°	8785.2	30.3
0°-90°	11689.1	40.3
90°-120°	8258.2	28.5
90°-150°	15040.4	51.9
90°-180°	17282.0	59.7
0°-180°	28970.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1510	1510	1510	1510	1510	
5°	1471	1578	1777	2010	2082	136
15°	1102	2034	3427	4155	4286	307
25°	704	2306	4082	4262	4267	324
35°	476	2204	3845	4063	4223	297
45°	325	1757	3398	3893	4068	252
55°	233	1116	2884	3349	3442	212
65°	184	592	2141	2408	2442	183
75°	136	364	1175	1291	1296	142
85°	49	112	291	320	325	51
90°	18	50	136	68	68	18
95°	172	673	2238	1154	785	191
105°	616	932	3777	5734	5350	652
115°	1093	1328	3026	6035	6888	1080
125°	1521	1705	2752	4650	5486	1350
135°	1812	1995	2666	3754	4256	1402
145°	2102	2236	2632	3203	3453	1317
155°	2376	2442	2632	2890	2974	1092
165°	2564	2598	2632	2736	2770	724
175°	2666	2666	2650	2684	2684	253
180°	2666	2666	2666	2666	2666	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1509.7	1509.7	1509.7	1509.7	1509.7	1509.7	1509.7	1509.7	1509.7	1509.7	1509.7
2.5°	1509.7	1509.7	1519.4	1524.3	1533.9	1538.8	1548.6	1558.2	1587.4	1592.3	1601.9
5°	1470.8	1490.2	1553.3	1577.6	1645.6	1737.9	1776.7	1839.8	1970.8	2009.7	2033.9
7.5°	1412.6	1456.3	1611.7	1650.5	1820.4	2063.1	2165.0	2301.0	2509.7	2611.6	2694.2
10°	1320.4	1412.6	1689.3	1781.5	2058.2	2427.1	2616.4	2805.8	3121.3	3262.1	3315.5
12.5°	1218.5	1368.9	1771.8	1898.0	2296.1	2834.9	3063.1	3271.8	3631.0	3820.4	3849.4
15°	1101.9	1305.8	1849.5	2033.9	2548.5	3174.8	3427.1	3684.4	4019.4	4155.3	4189.3
17.5°	1000.0	1257.3	1922.3	2116.4	2742.6	3480.5	3737.9	3951.4	4223.2	4315.5	4339.8
20°	873.8	1179.6	1970.8	2223.2	2946.6	3703.8	3951.4	4116.4	4301.0	4359.2	4368.8
22.5°	781.5	1097.0	2000.0	2262.1	3082.5	3839.8	4048.5	4179.5	4305.7	4325.1	4330.0
25°	703.9	1004.9	1995.1	2305.8	3198.9	3922.3	4082.5	4179.5	4252.4	4262.0	4262.0
27.5°	631.1	902.9	1975.7	2315.5	3286.3	3941.7	4067.9	4135.8	4169.9	4189.3	4189.3
30°	568.0	805.8	1927.1	2296.1	3325.2	3922.3	4024.2	4058.2	4092.2	4121.3	4135.8
32.5°	519.4	713.6	1854.3	2257.3	3330.0	3873.7	3946.6	3966.0	4014.5	4082.5	4106.8
35°	475.7	621.3	1771.8	2203.8	3301.0	3796.1	3844.6	3864.1	3961.1	4063.1	4097.0
37.5°	432.0	553.3	1665.0	2111.7	3257.3	3703.8	3737.9	3771.8	3922.3	4043.6	4082.5
40°	388.3	495.1	1538.8	2009.7	3189.3	3592.2	3621.3	3674.7	3873.7	4014.5	4053.3
42.5°	354.4	446.6	1402.9	1902.9	3101.9	3466.0	3509.7	3587.3	3815.5	3966.0	4009.7
45°	325.2	398.1	1257.3	1757.3	2990.2	3334.9	3398.0	3504.8	3747.5	3893.1	3932.0
47.5°	296.1	364.1	1106.8	1606.8	2868.9	3203.8	3286.3	3407.7	3655.3	3796.1	3830.0
50°	271.8	330.1	956.3	1446.6	2737.9	3063.1	3160.1	3286.3	3538.8	3669.9	3713.6
52.5°	252.4	301.0	815.5	1286.4	2587.4	2917.4	3029.1	3160.1	3398.0	3524.2	3553.3
55°	233.0	276.7	694.2	1116.5	2432.0	2762.1	2883.5	3009.7	3242.6	3349.4	3368.9
57.5°	223.3	257.3	592.3	956.3	2266.9	2587.4	2723.2	2839.8	3058.2	3140.7	3160.1
60°	208.7	242.7	514.5	820.4	2087.4	2422.3	2538.8	2655.3	2839.8	2907.7	2922.3
62.5°	194.2	233.0	456.3	689.3	1902.9	2228.1	2344.6	2451.4	2606.8	2655.3	2674.8
65°	184.4	223.3	412.6	592.3	1713.6	2024.3	2140.7	2233.0	2359.2	2407.7	2417.4
67.5°	174.8	213.6	378.7	509.7	1524.3	1820.4	1907.7	1995.1	2092.2	2140.7	2145.6
70°	160.2	203.9	349.5	451.4	1330.1	1587.4	1660.1	1752.4	1830.1	1854.3	1868.9
72.5°	150.5	189.3	330.1	407.7	1131.1	1364.1	1432.0	1485.4	1553.3	1577.6	1577.6
75°	135.9	169.9	310.7	364.1	927.1	1116.5	1174.8	1228.1	1281.5	1291.2	1276.7
77.5°	121.3	150.5	267.0	305.8	723.3	883.5	932.0	961.2	1004.9	1014.5	1019.4
80°	101.9	131.1	208.7	237.9	524.3	650.5	684.4	708.7	747.6	747.6	757.3
82.5°	77.6	101.9	150.5	169.9	354.4	446.6	475.7	490.2	514.5	514.5	514.5
85°	48.6	63.1	97.1	111.7	213.6	271.8	291.3	296.1	315.5	320.4	320.4
87.5°	24.3	33.9	63.1	68.0	111.7	140.8	140.8	150.5	150.5	145.6	140.8
90°	17.9	32.2	46.6	50.1	78.7	116.8	136.0	120.9	90.6	68.0	68.0
92.5°	71.5	193.2	314.9	345.3	485.5	672.3	765.7	671.1	481.8	339.9	326.4
95°	171.7	394.3	617.0	672.7	1194.6	1890.4	2238.3	1997.3	1515.5	1154.0	1113.1
97.5°	297.0	493.4	689.8	738.9	1609.1	2769.2	3349.3	3197.0	2892.5	2664.0	2586.1
100°	393.6	571.7	749.8	794.4	1760.0	3047.3	3691.0	3702.1	3724.4	3741.1	3648.3
102.5°	475.9	642.1	808.3	849.9	1829.1	3134.8	3787.7	3981.7	4369.7	4660.8	4581.2
105°	615.5	756.3	897.0	932.2	1880.4	3144.7	3776.9	4211.8	5081.8	5734.2	5691.5
107.5°	758.6	889.8	1021.0	1053.8	1889.9	3004.7	3562.2	4168.9	5382.3	6292.4	6302.7
110°	855.2	973.7	1092.2	1121.8	1875.7	2880.7	3383.3	4061.6	5418.2	6435.6	6480.1



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	950.1	1063.0	1175.9	1204.1	1876.2	2772.4	3220.5	3914.7	5303.0	6344.3	6412.7
115°	1093.2	1197.3	1301.6	1327.6	1893.5	2648.2	3025.5	3694.3	5031.7	6034.8	6129.7
117.5°	1234.5	1329.1	1423.8	1447.4	1928.6	2570.3	2891.2	3494.8	4701.9	5607.2	5712.4
120°	1316.8	1405.9	1494.9	1517.2	1957.3	2544.1	2837.6	3389.0	4491.9	5319.1	5421.3
122.5°	1397.3	1487.2	1577.0	1599.5	1998.5	2530.5	2796.5	3293.0	4286.2	5031.1	5131.9
125°	1520.8	1602.7	1684.6	1705.1	2054.0	2519.2	2751.7	3173.6	4017.3	4650.0	4742.8
127.5°	1620.9	1703.6	1786.4	1807.0	2109.4	2512.6	2714.2	3076.4	3800.8	4344.1	4422.4
130°	1674.7	1763.7	1852.7	1875.0	2149.9	2516.5	2699.8	3022.2	3667.2	4150.8	4223.2
132.5°	1730.1	1819.2	1908.2	1930.5	2182.7	2519.1	2687.3	2976.0	3553.3	3986.3	4051.1
135°	1812.4	1893.5	1974.6	1994.9	2218.6	2516.8	2665.9	2907.6	3391.0	3753.6	3809.5
137.5°	1896.5	1976.8	2057.2	2077.2	2272.2	2532.2	2662.2	2866.6	3275.3	3581.9	3627.6
140°	1966.3	2040.2	2114.2	2132.7	2305.0	2534.8	2649.7	2826.2	3179.3	3444.1	3486.9
142.5°	2020.0	2088.3	2156.7	2173.8	2332.4	2544.0	2649.7	2804.8	3114.9	3347.5	3384.3
145°	2102.3	2162.0	2221.5	2236.4	2368.2	2544.0	2631.8	2758.6	3012.3	3202.6	3230.4
147.5°	2184.5	2242.6	2300.6	2315.1	2420.7	2561.4	2631.8	2731.7	2931.2	3080.9	3104.0
150°	2238.3	2290.8	2343.2	2356.3	2448.1	2570.6	2631.8	2716.2	2884.7	3011.1	3029.8
152.5°	2293.7	2333.5	2373.2	2383.1	2466.0	2576.6	2631.8	2703.8	2847.7	2955.7	2969.8
155°	2376.0	2405.5	2434.8	2442.2	2505.4	2589.7	2631.8	2689.1	2803.7	2889.5	2898.9
157.5°	2436.9	2465.4	2494.0	2501.2	2544.7	2602.8	2631.8	2676.4	2765.4	2832.2	2838.8
160°	2478.0	2500.3	2522.5	2528.1	2562.7	2608.8	2631.8	2670.0	2746.3	2803.6	2807.4
162.5°	2519.1	2535.8	2552.5	2556.7	2581.7	2615.1	2631.8	2664.0	2728.5	2776.8	2780.3
165°	2563.8	2578.9	2594.1	2597.9	2609.2	2624.3	2631.8	2654.9	2701.0	2735.6	2739.4
167.5°	2605.1	2612.2	2619.3	2621.1	2630.7	2643.4	2649.7	2664.8	2695.0	2717.7	2719.3
170°	2631.8	2639.0	2646.2	2648.0	2648.6	2649.3	2649.7	2664.8	2695.0	2717.7	2717.7
172.5°	2646.2	2647.7	2649.3	2649.7	2649.7	2649.7	2649.7	2661.7	2685.6	2703.4	2702.0
175°	2665.9	2665.9	2665.9	2665.9	2660.5	2653.3	2649.7	2657.3	2672.4	2683.7	2683.7
177.5°	2665.9	2665.9	2665.9	2665.9	2661.7	2656.1	2653.3	2659.3	2671.2	2680.1	2678.5
180°	2665.9	2665.9	2665.9	2665.9	2665.9	2665.9	2665.9	2665.9	2665.9	2665.9	2665.9



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	1509.7	1509.7
2.5°	1611.7	1601.9
5°	2072.8	2082.5
7.5°	2791.2	2786.3
10°	3470.8	3514.5
12.5°	3966.0	3975.7
15°	4266.9	4286.3
17.5°	4383.5	4388.3
20°	4388.3	4378.6
22.5°	4334.9	4325.1
25°	4271.8	4266.9
27.5°	4213.6	4218.4
30°	4189.3	4203.8
32.5°	4189.3	4213.6
35°	4198.9	4223.2
37.5°	4194.1	4223.2
40°	4174.7	4208.7
42.5°	4121.3	4145.6
45°	4038.8	4067.9
47.5°	3932.0	3951.4
50°	3796.1	3815.5
52.5°	3626.2	3631.0
55°	3422.3	3441.7
57.5°	3203.8	3208.7
60°	2961.1	2975.7
62.5°	2703.8	2703.8
65°	2432.0	2441.7
67.5°	2150.5	2174.8
70°	1864.1	1868.9
72.5°	1582.5	1582.5
75°	1291.2	1296.1
77.5°	1014.5	1014.5
80°	752.4	757.3
82.5°	519.4	529.2
85°	325.2	325.2
87.5°	150.5	135.9
90°	68.0	68.0
92.5°	272.3	218.3
95°	949.2	785.4
97.5°	2274.4	1962.7
100°	3277.0	2905.6
102.5°	4263.2	3945.1
105°	5520.6	5349.6
107.5°	6344.1	6385.5
110°	6658.3	6836.4





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	6686.3	6959.8
115°	6508.9	6888.2
117.5°	6133.0	6553.7
120°	5830.0	6238.8
122.5°	5535.1	5938.2
125°	5114.2	5485.6
127.5°	4735.7	5049.0
130°	4512.7	4802.1
132.5°	4310.2	4569.5
135°	4032.9	4256.4
137.5°	3810.5	3993.3
140°	3657.8	3828.8
142.5°	3531.4	3678.5
145°	3341.8	3453.1
147.5°	3196.3	3288.4
150°	3104.6	3179.3
152.5°	3026.3	3082.7
155°	2936.2	2973.6
157.5°	2865.0	2891.2
160°	2822.5	2837.6
162.5°	2794.7	2809.0
165°	2754.5	2769.6
167.5°	2725.6	2732.0
170°	2717.7	2717.7
172.5°	2696.5	2690.9
175°	2683.7	2683.7
177.5°	2672.2	2665.9
180°	2665.9	2665.9



TEST NUMBER: P938530  
 CATALOG NUMBER: SQ4-FB-150U-125D-92765-1D-UNV-STD-W-12-6500K

**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	5.41	6.22	6.44	7.26	8.66	18.60	19.41	19.63	20.46	21.85
	3H	6.11	6.84	7.15	7.89	9.31	20.45	21.17	21.48	22.22	23.64
	4H	6.41	7.10	7.46	8.15	9.58	21.09	21.78	22.14	22.83	24.26
	6H	6.66	7.29	7.72	8.35	9.79	21.52	22.16	22.58	23.22	24.65
	8H	6.72	7.33	7.79	8.40	9.84	21.65	22.25	22.71	23.32	24.76
	12H	6.74	7.32	7.81	8.38	9.84	21.71	22.29	22.79	23.36	24.82
4H	2H	12.63	13.32	13.69	14.37	15.80	18.87	19.56	19.93	20.61	22.04
	3H	14.19	14.77	15.26	15.85	17.29	20.92	21.50	21.98	22.57	24.01
	4H	14.28	14.81	15.36	15.88	17.35	21.69	22.22	22.76	23.29	24.75
	6H	14.29	14.75	15.37	15.84	17.30	22.23	22.68	23.31	23.78	25.23
	8H	14.27	14.69	15.35	15.78	17.25	22.39	22.82	23.47	23.90	25.37
	12H	14.22	14.61	15.32	15.71	17.18	22.48	22.87	23.58	23.97	25.45
8H	4H	15.73	16.15	16.81	17.24	18.71	21.74	22.17	22.82	23.25	24.73
	6H	15.97	16.32	17.07	17.45	18.92	22.37	22.73	23.48	23.85	25.32
	8H	15.98	16.29	17.10	17.40	18.89	22.59	22.90	23.71	24.01	25.50
	12H	15.95	16.22	17.07	17.33	18.85	22.74	23.01	23.86	24.12	25.64
12H	4H	15.87	16.26	16.97	17.36	18.83	21.69	22.08	22.79	23.18	24.65
	6H	16.23	16.54	17.34	17.65	19.13	22.36	22.67	23.47	23.78	25.26
	8H	16.29	16.57	17.41	17.67	19.20	22.59	22.86	23.70	23.96	25.49