

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: P938030

Luminaire Tested: SQ4-FB-125U-100D-92765-1D-UNV-STD-W-12-6500K

Issue Date: 12/17/2024

**Test Information**

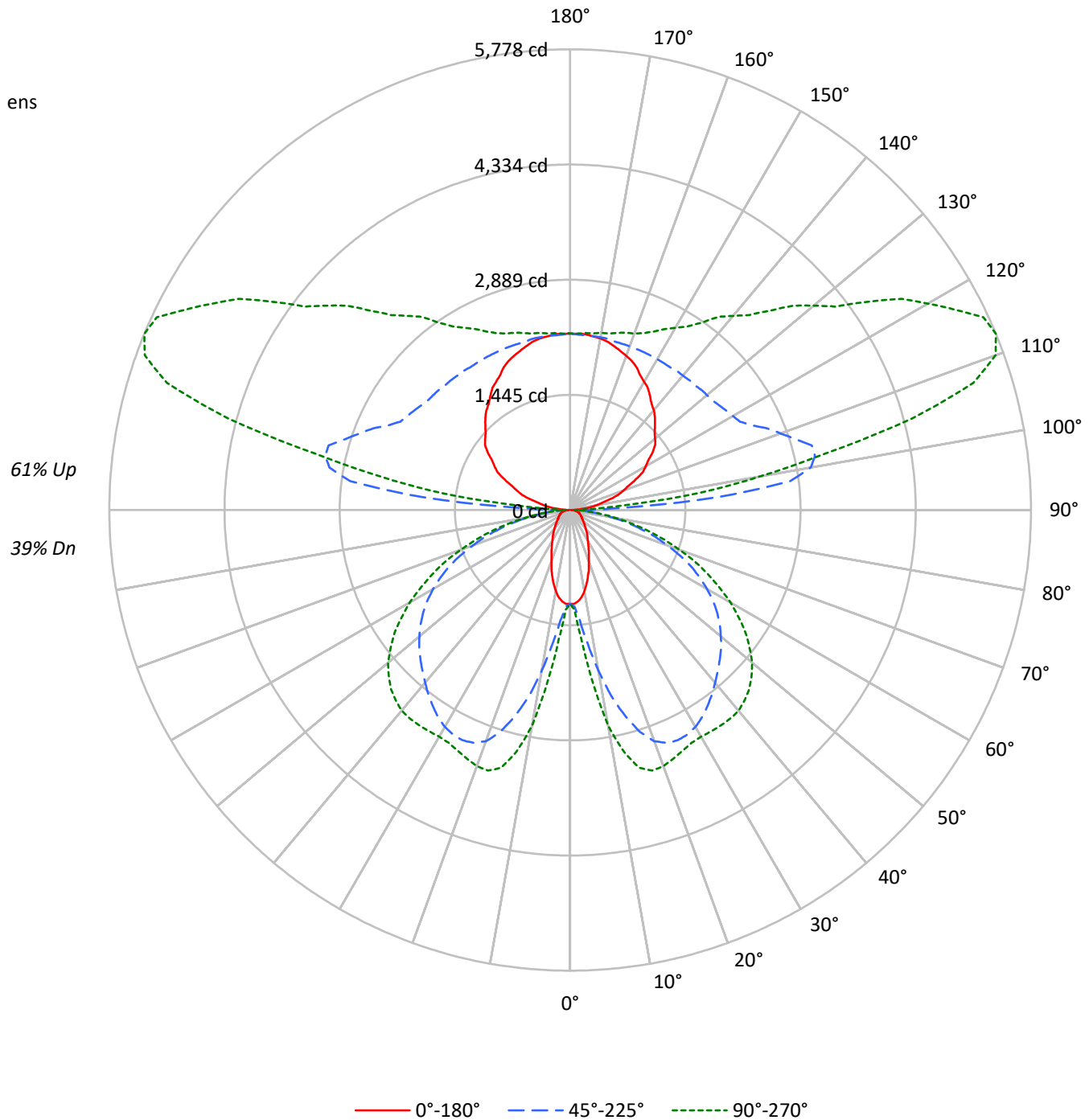
Test Method: LM-79-2019  
Report Number: P938030  
REPORT IS A COMBINATION OF REPORTS P933591 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-125U-100D-92765-1D-UNV-STD-W-12-6500K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 23472.6 lumens  
Efficiency: N/A  
Efficacy: 121.5 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: 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

TEST NUMBER: P938030  
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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°	3646	3646	3646
5°	3563	4215	4900
10°	3233	6145	8124
15°	2749	8031	9810
20°	2238	9309	9998
25°	1868	9743	9795
30°	1576	9808	9776
35°	1394	9647	10029
40°	1216	9438	10290
45°	1102	9286	10330
50°	1012	9150	10159
55°	970	8949	9709
60°	993	8560	8998
65°	1035	7966	8021
70°	1106	6952	6776
75°	1230	5674	5288
80°	1354	3940	3563
85°	1228	2094	1824

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 10330 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	152.5	0.6
10°-20°	675.7	2.9
20°-30°	1182.0	5.0
30°-40°	1521.5	6.5
40°-50°	1699.5	7.2
50°-60°	1627.7	6.9
60°-70°	1290.0	5.5
70°-80°	758.6	3.2
80°-90°	219.2	0.9
90°-100°	1078.7	4.6
100°-110°	2836.0	12.1
110°-120°	2940.6	12.5
120°-130°	2358.8	10.0
130°-140°	1850.8	7.9
140°-150°	1420.5	6.1
150°-160°	1023.0	4.4
160°-170°	626.0	2.7
170°-180°	211.5	0.9
0°-30°	2010.2	8.6
0°-40°	3531.7	15.0
0°-60°	6859.0	29.2
0°-90°	9126.7	38.9
90°-120°	6855.4	29.2
90°-150°	12485.5	53.2
90°-180°	14346.0	61.1
0°-180°	23472.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1179	1179	1179	1179	1179	
5°	1148	1232	1387	1569	1626	106
15°	860	1588	2676	3244	3347	239
25°	550	1800	3187	3328	3331	253
35°	371	1721	3002	3172	3297	232
45°	254	1372	2653	3040	3176	196
55°	182	872	2251	2615	2687	166
65°	144	462	1671	1880	1906	143
75°	106	284	917	1008	1012	111
85°	38	87	227	250	254	40
90°	15	42	113	56	56	15
95°	143	558	1858	958	652	158
105°	511	774	3135	4760	4441	542
115°	907	1102	2512	5010	5718	896
125°	1262	1416	2284	3860	4554	1121
135°	1505	1656	2213	3116	3533	1164
145°	1745	1856	2185	2658	2866	1093
155°	1972	2027	2185	2399	2468	906
165°	2128	2156	2185	2271	2299	601
175°	2213	2213	2200	2228	2228	210
180°	2213	2213	2213	2213	2213	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1178.7	1178.7	1178.7	1178.7	1178.7	1178.7	1178.7	1178.7	1178.7	1178.7	1178.7
2.5°	1178.7	1178.7	1186.3	1190.1	1197.6	1201.5	1209.0	1216.6	1239.3	1243.1	1250.7
5°	1148.4	1163.5	1212.8	1231.8	1284.8	1356.8	1387.1	1436.4	1538.7	1569.0	1587.9
7.5°	1102.9	1137.0	1258.3	1288.6	1421.2	1610.7	1690.4	1796.4	1959.4	2039.0	2103.4
10°	1030.9	1102.9	1318.9	1390.9	1607.0	1895.0	2042.8	2190.6	2437.0	2546.8	2588.5
12.5°	951.3	1068.7	1383.3	1481.9	1792.7	2213.3	2391.4	2554.5	2834.9	2982.7	3005.4
15°	860.3	1019.5	1443.9	1587.9	1989.7	2478.6	2675.7	2876.6	3138.1	3244.2	3270.8
17.5°	780.7	981.6	1500.8	1652.4	2141.3	2717.4	2918.3	3085.1	3297.2	3369.2	3388.3
20°	682.1	921.0	1538.7	1735.8	2300.5	2891.7	3085.1	3213.9	3357.9	3403.4	3410.9
22.5°	610.1	856.6	1561.5	1766.1	2406.6	2997.9	3160.8	3263.2	3361.7	3376.9	3380.6
25°	549.5	784.6	1557.6	1800.2	2497.6	3062.3	3187.4	3263.2	3320.0	3327.6	3327.6
27.5°	492.7	704.9	1542.5	1807.8	2565.8	3077.4	3176.0	3229.1	3255.6	3270.8	3270.8
30°	443.4	629.2	1504.6	1792.7	2596.2	3062.3	3141.9	3168.4	3194.9	3217.7	3229.1
32.5°	405.5	557.1	1447.8	1762.4	2599.9	3024.4	3081.2	3096.4	3134.3	3187.4	3206.3
35°	371.4	485.1	1383.3	1720.7	2577.1	2963.7	3001.7	3016.8	3092.6	3172.2	3198.8
37.5°	337.3	432.1	1299.9	1648.7	2543.1	2891.7	2918.3	2944.8	3062.3	3157.1	3187.4
40°	303.2	386.6	1201.5	1569.0	2490.0	2804.6	2827.3	2869.0	3024.4	3134.3	3164.6
42.5°	276.6	348.7	1095.3	1485.6	2421.8	2706.0	2740.2	2800.8	2978.9	3096.4	3130.5
45°	254.0	310.8	981.6	1371.9	2334.6	2603.7	2653.0	2736.3	2925.9	3039.5	3069.9
47.5°	231.2	284.3	864.1	1254.5	2239.9	2501.4	2565.8	2660.5	2853.9	2963.7	2990.3
50°	212.3	257.7	746.6	1129.5	2137.6	2391.4	2467.3	2565.8	2762.9	2865.2	2899.4
52.5°	197.1	234.9	636.7	1004.4	2020.1	2277.7	2365.0	2467.3	2653.0	2751.5	2774.3
55°	182.0	216.0	542.0	871.7	1898.8	2156.5	2251.3	2349.7	2531.7	2615.1	2630.2
57.5°	174.3	200.9	462.4	746.6	1769.9	2020.1	2126.2	2217.1	2387.7	2452.1	2467.3
60°	162.9	189.5	401.7	640.5	1629.6	1891.2	1982.2	2073.1	2217.1	2270.2	2281.6
62.5°	151.6	182.0	356.3	538.1	1485.6	1739.6	1830.5	1913.9	2035.3	2073.1	2088.2
65°	144.0	174.3	322.1	462.4	1337.9	1580.4	1671.3	1743.4	1841.9	1879.8	1887.4
67.5°	136.4	166.8	295.7	398.0	1190.1	1421.2	1489.5	1557.6	1633.5	1671.3	1675.2
70°	125.1	159.2	272.9	352.5	1038.4	1239.3	1296.2	1368.2	1428.8	1447.8	1459.2
72.5°	117.5	147.8	257.7	318.3	883.0	1065.0	1118.1	1159.8	1212.8	1231.8	1231.8
75°	106.1	132.6	242.6	284.3	723.8	871.7	917.2	958.9	1000.6	1008.1	996.7
77.5°	94.8	117.5	208.5	238.8	564.7	689.8	727.7	750.4	784.6	792.1	795.9
80°	79.6	102.3	162.9	185.7	409.3	507.8	534.4	553.3	583.7	583.7	591.2
82.5°	60.6	79.6	117.5	132.6	276.6	348.7	371.4	382.8	401.7	401.7	401.7
85°	37.9	49.2	75.8	87.2	166.8	212.3	227.4	231.2	246.3	250.1	250.1
87.5°	18.9	26.5	49.2	53.1	87.2	109.9	109.9	117.5	117.5	113.7	109.9
90°	14.8	26.7	38.6	41.6	65.3	97.0	112.8	100.3	75.3	56.4	56.4
92.5°	59.4	160.4	261.4	286.7	403.0	558.1	635.7	557.1	400.0	282.2	271.0
95°	142.6	327.4	512.2	558.4	991.6	1569.2	1858.0	1657.9	1258.0	958.0	924.0
97.5°	246.5	409.5	572.7	613.4	1335.7	2298.8	2780.3	2653.9	2401.1	2211.5	2146.7
100°	326.7	474.7	622.5	659.5	1461.0	2529.7	3064.0	3073.3	3091.8	3105.6	3028.6
102.5°	395.1	533.1	671.0	705.5	1518.4	2602.3	3144.2	3305.3	3627.4	3869.0	3803.1
105°	510.9	627.7	744.6	773.8	1561.0	2610.5	3135.3	3496.3	4218.5	4760.1	4724.6
107.5°	629.7	738.7	847.6	874.8	1568.9	2494.4	2957.1	3460.7	4468.0	5223.5	5232.1
110°	710.0	808.3	906.7	931.2	1557.0	2391.3	2808.5	3371.6	4497.7	5342.3	5379.4



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	788.7	882.4	976.1	999.5	1557.4	2301.5	2673.4	3249.7	4402.2	5266.6	5323.4
115°	907.4	993.9	1080.4	1102.0	1571.9	2198.3	2511.5	3066.7	4176.9	5009.7	5088.4
117.5°	1024.8	1103.4	1182.0	1201.6	1601.0	2133.7	2400.1	2901.2	3903.2	4654.7	4742.0
120°	1093.1	1167.0	1241.0	1259.5	1624.9	2112.0	2355.6	2813.4	3729.0	4415.6	4500.4
122.5°	1160.0	1234.5	1309.1	1327.8	1659.0	2100.7	2321.4	2733.7	3558.1	4176.5	4260.1
125°	1262.5	1330.4	1398.4	1415.5	1705.1	2091.2	2284.2	2634.4	3334.8	3860.1	3937.1
127.5°	1345.7	1414.3	1483.0	1500.1	1751.1	2085.7	2253.1	2553.7	3155.1	3606.1	3671.1
130°	1390.2	1464.1	1538.0	1556.5	1784.7	2089.1	2241.2	2508.9	3044.2	3445.7	3505.8
132.5°	1436.2	1510.1	1584.1	1602.6	1812.0	2091.2	2230.8	2470.4	2949.7	3309.1	3362.9
135°	1504.6	1571.9	1639.2	1656.0	1841.7	2089.3	2213.0	2413.7	2815.0	3116.0	3162.4
137.5°	1574.4	1641.0	1707.7	1724.3	1886.2	2102.1	2210.0	2379.7	2718.9	2973.4	3011.3
140°	1632.2	1693.6	1755.0	1770.4	1913.4	2104.2	2199.6	2346.1	2639.2	2859.0	2894.5
142.5°	1676.8	1733.6	1790.4	1804.5	1936.2	2111.8	2199.6	2328.3	2585.8	2778.9	2809.4
145°	1745.1	1794.7	1844.2	1856.5	1965.9	2111.8	2184.8	2290.1	2500.6	2658.5	2681.6
147.5°	1813.4	1861.6	1909.8	1921.9	2009.5	2126.4	2184.8	2267.6	2433.3	2557.5	2576.7
150°	1858.0	1901.6	1945.2	1956.1	2032.3	2133.9	2184.8	2254.8	2394.7	2499.6	2515.1
152.5°	1904.1	1937.1	1970.1	1978.4	2047.2	2138.9	2184.8	2244.6	2364.0	2453.6	2465.4
155°	1972.3	1996.8	2021.2	2027.3	2079.8	2149.8	2184.8	2232.3	2327.4	2398.6	2406.4
157.5°	2022.9	2046.6	2070.4	2076.4	2112.5	2160.7	2184.8	2221.7	2295.6	2351.1	2356.5
160°	2057.1	2075.5	2094.1	2098.7	2127.3	2165.7	2184.8	2216.5	2279.9	2327.4	2330.5
162.5°	2091.2	2105.1	2118.9	2122.4	2143.2	2170.9	2184.8	2211.6	2265.0	2305.1	2308.1
165°	2128.3	2140.8	2153.3	2156.5	2166.0	2178.5	2184.8	2203.9	2242.2	2270.9	2274.0
167.5°	2162.5	2168.5	2174.4	2175.8	2183.8	2194.4	2199.6	2212.2	2237.2	2256.0	2257.4
170°	2184.8	2190.7	2196.7	2198.1	2198.6	2199.2	2199.6	2212.2	2237.2	2256.0	2256.0
172.5°	2196.7	2198.0	2199.3	2199.6	2199.6	2199.6	2199.6	2209.6	2229.4	2244.2	2243.0
175°	2213.0	2213.0	2213.0	2213.0	2208.5	2202.6	2199.6	2205.9	2218.5	2227.8	2227.8
177.5°	2213.0	2213.0	2213.0	2213.0	2209.6	2204.9	2202.6	2207.6	2217.4	2224.9	2223.5
180°	2213.0	2213.0	2213.0	2213.0	2213.0	2213.0	2213.0	2213.0	2213.0	2213.0	2213.0



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	1178.7	1178.7
2.5°	1258.3	1250.7
5°	1618.4	1625.9
7.5°	2179.3	2175.4
10°	2709.9	2743.9
12.5°	3096.4	3104.0
15°	3331.4	3346.6
17.5°	3422.3	3426.1
20°	3426.1	3418.6
22.5°	3384.4	3376.9
25°	3335.2	3331.4
27.5°	3289.7	3293.5
30°	3270.8	3282.1
32.5°	3270.8	3289.7
35°	3278.3	3297.2
37.5°	3274.5	3297.2
40°	3259.4	3285.9
42.5°	3217.7	3236.6
45°	3153.2	3176.0
47.5°	3069.9	3085.1
50°	2963.7	2978.9
52.5°	2831.1	2834.9
55°	2671.9	2687.1
57.5°	2501.4	2505.1
60°	2311.9	2323.3
62.5°	2111.0	2111.0
65°	1898.8	1906.4
67.5°	1679.0	1697.9
70°	1455.3	1459.2
72.5°	1235.5	1235.5
75°	1008.1	1011.9
77.5°	792.1	792.1
80°	587.5	591.2
82.5°	405.5	413.1
85°	254.0	254.0
87.5°	117.5	106.1
90°	56.4	56.4
92.5°	226.0	181.2
95°	788.0	652.0
97.5°	1888.0	1629.3
100°	2720.3	2412.0
102.5°	3539.0	3275.0
105°	4582.7	4440.8
107.5°	5266.4	5300.8
110°	5527.2	5675.0





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	5550.4	5777.5
115°	5403.3	5718.1
117.5°	5091.2	5440.4
120°	4839.7	5178.9
122.5°	4594.8	4929.5
125°	4245.4	4553.7
127.5°	3931.2	4191.3
130°	3746.1	3986.4
132.5°	3578.1	3793.2
135°	3347.8	3533.3
137.5°	3163.2	3315.0
140°	3036.5	3178.4
142.5°	2931.5	3053.6
145°	2774.0	2866.5
147.5°	2653.2	2729.8
150°	2577.2	2639.3
152.5°	2512.2	2559.1
155°	2437.4	2468.4
157.5°	2378.3	2400.1
160°	2343.1	2355.6
162.5°	2319.9	2331.8
165°	2286.5	2299.2
167.5°	2262.6	2267.9
170°	2256.0	2256.0
172.5°	2238.4	2233.8
175°	2227.8	2227.8
177.5°	2218.3	2213.0
180°	2213.0	2213.0



TEST NUMBER: P938030  
 CATALOG NUMBER: SQ4-FB-125U-100D-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	4.39	5.19	5.43	6.24	7.66	17.59	18.38	18.63	19.43	20.85
	3H	5.09	5.81	6.14	6.87	8.31	19.43	20.14	20.48	21.20	22.64
	4H	5.39	6.07	6.45	7.13	8.57	20.07	20.75	21.13	21.81	23.26
	6H	5.64	6.26	6.71	7.33	8.78	20.50	21.13	21.57	22.19	23.65
	8H	5.70	6.30	6.78	7.38	8.83	20.62	21.22	21.70	22.30	23.75
	12H	5.72	6.28	6.80	7.36	8.84	20.69	21.26	21.77	22.33	23.81
4H	2H	11.61	12.29	12.68	13.35	14.79	17.85	18.53	18.92	19.59	21.04
	3H	13.17	13.74	14.25	14.83	16.28	19.90	20.46	20.97	21.55	23.01
	4H	13.26	13.78	14.34	14.86	16.34	20.66	21.19	21.75	22.26	23.74
	6H	13.27	13.72	14.36	14.82	16.29	21.20	21.65	22.29	22.76	24.23
	8H	13.24	13.66	14.33	14.76	16.25	21.37	21.79	22.46	22.88	24.37
	12H	13.20	13.58	14.31	14.68	16.18	21.46	21.84	22.57	22.95	24.44
8H	4H	14.70	15.12	15.80	16.22	17.71	20.72	21.14	21.81	22.23	23.72
	6H	14.94	15.29	16.06	16.43	17.91	21.35	21.70	22.46	22.83	24.32
	8H	14.96	15.27	16.08	16.38	17.89	21.57	21.88	22.69	22.99	24.50
	12H	14.93	15.19	16.05	16.31	17.85	21.72	21.98	22.84	23.10	24.64
12H	4H	14.85	15.23	15.96	16.33	17.83	20.67	21.05	21.78	22.16	23.65
	6H	15.20	15.51	16.32	16.63	18.13	21.33	21.64	22.45	22.75	24.26
	8H	15.27	15.54	16.39	16.65	18.19	21.56	21.83	22.69	22.94	24.49