

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: P938313

Luminaire Tested: SQ4-FB-150U-075D-835-1D-UNV-STD-W-12

Issue Date: 12/17/2024

**Test Information**

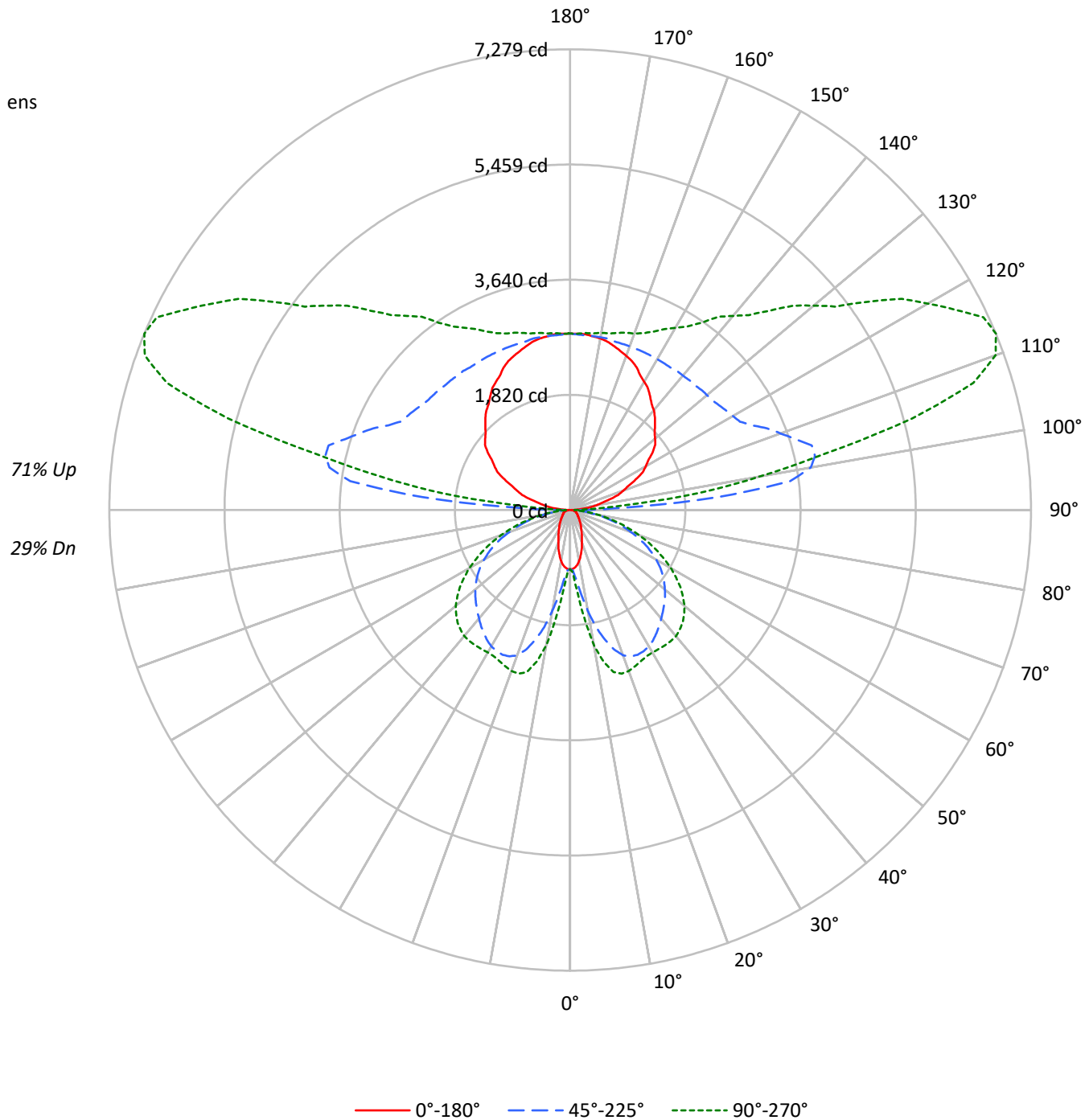
Test Method: LM-79-2019  
Report Number: P938313  
REPORT IS A COMBINATION OF REPORTS P933622 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-150U-075D-835-1D-UNV-STD-W-12  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 25302.0 lumens  
Efficiency: N/A  
Efficacy: 132.6 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): 190.8  
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	102	102	102	102	91	91	91	91	71	71	71	53	53	53	36	36	36	36	36	36	29
1	93	88	84	81	83	79	76	73	62	60	58	46	45	43	32	31	30	32	31	30	23
2	84	77	71	66	75	69	64	59	54	50	47	40	38	36	27	26	25	27	26	25	19
3	76	67	60	54	68	60	54	49	47	43	39	35	32	30	24	22	21	24	22	21	16
4	70	59	51	45	62	53	46	41	42	37	33	31	28	25	21	19	17	21	19	17	13
5	64	52	44	38	57	47	40	35	37	32	28	28	24	21	19	17	15	19	17	15	11
6	58	47	39	33	52	42	35	30	33	28	24	25	21	18	17	15	13	17	15	13	10
7	54	42	34	28	48	38	31	26	30	25	21	22	19	16	15	13	11	15	13	11	8
8	50	38	30	25	44	34	27	23	27	22	18	20	17	14	14	12	10	14	12	10	7
9	46	34	27	22	41	31	24	20	24	20	16	18	15	12	13	10	9	13	10	9	6
10	43	31	24	19	38	28	22	18	22	18	14	17	13	11	12	9	8	12	9	8	6

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

	0°	45°	90°
0°	2886	2886	2886
5°	2820	3336	3879
10°	2559	4865	6431
15°	2176	6357	7765
20°	1772	7369	7914
25°	1479	7713	7753
30°	1248	7764	7739
35°	1104	7637	7939
40°	962	7471	8146
45°	872	7351	8178
50°	800	7243	8042
55°	767	7084	7686
60°	787	6776	7123
65°	820	6306	6350
70°	875	5503	5364
75°	974	4491	4186
80°	1072	3118	2820
85°	972	1657	1444

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 8178 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	120.7	0.5
10°-20°	534.9	2.1
20°-30°	935.6	3.7
30°-40°	1204.5	4.8
40°-50°	1345.3	5.3
50°-60°	1288.5	5.1
60°-70°	1021.2	4.0
70°-80°	600.4	2.4
80°-90°	177.4	0.7
90°-100°	1359.0	5.4
100°-110°	3572.9	14.1
110°-120°	3704.7	14.6
120°-130°	2971.6	11.7
130°-140°	2331.7	9.2
140°-150°	1789.6	7.1
150°-160°	1288.8	5.1
160°-170°	788.6	3.1
170°-180°	266.4	1.1
0°-30°	1591.3	6.3
0°-40°	2795.7	11.0
0°-60°	5429.6	21.5
0°-90°	7228.6	28.6
90°-120°	8636.6	34.1
90°-150°	15729.5	62.2
90°-180°	18073.0	71.4
0°-180°	25302.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	933	933	933	933	933	
5°	909	975	1098	1242	1287	84
15°	681	1257	2118	2568	2649	190
25°	435	1425	2523	2634	2637	200
35°	294	1362	2376	2511	2610	184
45°	201	1086	2100	2406	2514	155
55°	144	690	1782	2070	2127	131
65°	114	366	1323	1488	1509	113
75°	84	225	726	798	801	88
85°	30	69	180	198	201	32
90°	19	52	142	71	71	17
95°	180	704	2341	1207	821	199
105°	644	975	3950	5997	5595	682
115°	1143	1388	3164	6311	7204	1129
125°	1590	1783	2878	4863	5737	1412
135°	1895	2086	2788	3926	4451	1467
145°	2199	2339	2752	3349	3611	1377
155°	2485	2554	2752	3022	3110	1142
165°	2681	2717	2752	2861	2896	757
175°	2788	2788	2771	2807	2807	265
180°	2788	2788	2788	2788	2788	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	933.0	933.0	933.0	933.0	933.0	933.0	933.0	933.0	933.0	933.0	933.0
2.5°	933.0	933.0	939.0	942.0	948.0	951.0	957.0	963.0	981.0	984.0	990.0
5°	909.0	921.0	960.0	975.0	1017.0	1074.0	1098.0	1137.1	1218.1	1242.1	1257.1
7.5°	873.0	900.0	996.0	1020.0	1125.0	1275.1	1338.1	1422.1	1551.1	1614.1	1665.1
10°	816.0	873.0	1044.0	1101.0	1272.1	1500.1	1617.1	1734.1	1929.1	2016.1	2049.1
12.5°	753.0	846.0	1095.0	1173.1	1419.1	1752.1	1893.1	2022.1	2244.1	2361.1	2379.1
15°	681.0	807.0	1143.1	1257.1	1575.1	1962.1	2118.1	2277.1	2484.1	2568.1	2589.1
17.5°	618.0	777.0	1188.1	1308.1	1695.1	2151.1	2310.1	2442.1	2610.1	2667.1	2682.1
20°	540.0	729.0	1218.1	1374.1	1821.1	2289.1	2442.1	2544.1	2658.1	2694.1	2700.1
22.5°	483.0	678.0	1236.1	1398.1	1905.1	2373.1	2502.1	2583.1	2661.1	2673.1	2676.1
25°	435.0	621.0	1233.1	1425.1	1977.1	2424.1	2523.1	2583.1	2628.1	2634.1	2634.1
27.5°	390.0	558.0	1221.1	1431.1	2031.1	2436.1	2514.1	2556.1	2577.1	2589.1	2589.1
30°	351.0	498.0	1191.1	1419.1	2055.1	2424.1	2487.1	2508.1	2529.1	2547.1	2556.1
32.5°	321.0	441.0	1146.1	1395.1	2058.1	2394.1	2439.1	2451.1	2481.1	2523.1	2538.1
35°	294.0	384.0	1095.0	1362.1	2040.1	2346.1	2376.1	2388.1	2448.1	2511.1	2532.1
37.5°	267.0	342.0	1029.0	1305.1	2013.1	2289.1	2310.1	2331.1	2424.1	2499.1	2523.1
40°	240.0	306.0	951.0	1242.1	1971.1	2220.1	2238.1	2271.1	2394.1	2481.1	2505.1
42.5°	219.0	276.0	867.0	1176.1	1917.1	2142.1	2169.1	2217.1	2358.1	2451.1	2478.1
45°	201.0	246.0	777.0	1086.0	1848.1	2061.1	2100.1	2166.1	2316.1	2406.1	2430.1
47.5°	183.0	225.0	684.0	993.0	1773.1	1980.1	2031.1	2106.1	2259.1	2346.1	2367.1
50°	168.0	204.0	591.0	894.0	1692.1	1893.1	1953.1	2031.1	2187.1	2268.1	2295.1
52.5°	156.0	186.0	504.0	795.0	1599.1	1803.1	1872.1	1953.1	2100.1	2178.1	2196.1
55°	144.0	171.0	429.0	690.0	1503.1	1707.1	1782.1	1860.1	2004.1	2070.1	2082.1
57.5°	138.0	159.0	366.0	591.0	1401.1	1599.1	1683.1	1755.1	1890.1	1941.1	1953.1
60°	129.0	150.0	318.0	507.0	1290.1	1497.1	1569.1	1641.1	1755.1	1797.1	1806.1
62.5°	120.0	144.0	282.0	426.0	1176.1	1377.1	1449.1	1515.1	1611.1	1641.1	1653.1
65°	114.0	138.0	255.0	366.0	1059.0	1251.1	1323.1	1380.1	1458.1	1488.1	1494.1
67.5°	108.0	132.0	234.0	315.0	942.0	1125.0	1179.1	1233.1	1293.1	1323.1	1326.1
70°	99.0	126.0	216.0	279.0	822.0	981.0	1026.0	1083.0	1131.0	1146.1	1155.1
72.5°	93.0	117.0	204.0	252.0	699.0	843.0	885.0	918.0	960.0	975.0	975.0
75°	84.0	105.0	192.0	225.0	573.0	690.0	726.0	759.0	792.0	798.0	789.0
77.5°	75.0	93.0	165.0	189.0	447.0	546.0	576.0	594.0	621.0	627.0	630.0
80°	63.0	81.0	129.0	147.0	324.0	402.0	423.0	438.0	462.0	462.0	468.0
82.5°	48.0	63.0	93.0	105.0	219.0	276.0	294.0	303.0	318.0	318.0	318.0
85°	30.0	39.0	60.0	69.0	132.0	168.0	180.0	183.0	195.0	198.0	198.0
87.5°	15.0	21.0	39.0	42.0	69.0	87.0	87.0	93.0	93.0	90.0	87.0
90°	18.7	33.7	48.7	52.4	82.3	122.2	142.2	126.4	94.8	71.1	71.1
92.5°	74.8	202.0	329.3	361.1	507.7	703.1	800.8	701.8	503.9	355.5	341.4
95°	179.6	412.4	645.3	703.5	1249.3	1977.0	2340.8	2088.8	1584.9	1206.9	1164.1
97.5°	310.6	516.0	721.4	772.8	1682.8	2896.1	3502.7	3343.5	3025.0	2786.1	2704.6
100°	411.6	597.9	784.2	830.8	1840.6	3186.9	3860.1	3871.7	3895.0	3912.5	3815.4
102.5°	497.7	671.5	845.3	888.8	1912.9	3278.4	3961.2	4164.1	4569.9	4874.3	4791.1
105°	643.7	790.9	938.1	974.9	1966.6	3288.8	3949.9	4404.8	5314.6	5996.9	5952.2
107.5°	793.4	930.6	1067.8	1102.1	1976.5	3142.4	3725.4	4359.9	5628.9	6580.7	6591.5
110°	894.4	1018.3	1142.2	1173.2	1961.6	3012.7	3538.3	4247.7	5666.4	6730.4	6777.0



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	993.6	1111.7	1229.8	1259.3	1962.2	2899.4	3368.0	4094.0	5546.0	6635.0	6706.5
115°	1143.3	1252.2	1361.2	1388.4	1980.3	2769.5	3164.1	3863.5	5262.2	6311.3	6410.5
117.5°	1291.1	1390.0	1489.0	1513.7	2017.0	2688.1	3023.7	3654.9	4917.3	5864.1	5974.1
120°	1377.1	1470.3	1563.4	1586.7	2047.0	2660.7	2967.6	3544.3	4697.7	5562.8	5669.7
122.5°	1461.3	1555.3	1649.3	1672.8	2090.1	2646.4	2924.6	3443.9	4482.6	5261.6	5367.0
125°	1590.5	1676.1	1761.8	1783.2	2148.1	2634.6	2877.8	3319.0	4201.3	4863.0	4960.1
127.5°	1695.2	1781.7	1868.2	1889.8	2206.0	2627.7	2838.5	3217.3	3974.9	4543.1	4625.0
130°	1751.4	1844.5	1937.6	1960.9	2248.4	2631.8	2823.5	3160.7	3835.2	4341.0	4416.7
132.5°	1809.4	1902.5	1995.6	2018.9	2282.7	2634.5	2810.4	3112.3	3716.1	4168.9	4236.7
135°	1895.4	1980.2	2065.1	2086.3	2320.2	2632.1	2788.0	3040.8	3546.4	3925.6	3984.0
137.5°	1983.4	2067.4	2151.4	2172.4	2376.3	2648.2	2784.2	2997.9	3425.4	3746.0	3793.8
140°	2056.4	2133.7	2211.1	2230.4	2410.6	2650.9	2771.1	2955.7	3325.0	3601.9	3646.6
142.5°	2112.5	2184.0	2255.5	2273.4	2439.3	2660.5	2771.1	2933.3	3257.6	3500.9	3539.4
145°	2198.6	2261.0	2323.3	2338.9	2476.7	2660.5	2752.4	2885.0	3150.3	3349.3	3378.4
147.5°	2284.6	2345.3	2406.0	2421.2	2531.6	2678.8	2752.4	2856.8	3065.5	3222.1	3246.2
150°	2340.8	2395.7	2450.6	2464.3	2560.3	2688.4	2752.4	2840.6	3016.9	3149.1	3168.6
152.5°	2398.8	2440.4	2481.9	2492.3	2579.0	2694.6	2752.4	2827.7	2978.2	3091.1	3105.9
155°	2484.9	2515.7	2546.4	2554.1	2620.2	2708.3	2752.4	2812.3	2932.1	3021.9	3031.7
157.5°	2548.5	2578.4	2608.3	2615.8	2661.3	2722.0	2752.4	2799.0	2892.1	2962.0	2968.9
160°	2591.5	2614.8	2638.1	2643.9	2680.1	2728.3	2752.4	2792.3	2872.1	2932.0	2936.0
162.5°	2634.5	2652.0	2669.4	2673.8	2700.0	2734.9	2752.4	2786.1	2853.5	2904.0	2907.7
165°	2681.3	2697.1	2712.9	2716.9	2728.7	2744.5	2752.4	2776.5	2824.7	2860.9	2864.9
167.5°	2724.4	2731.9	2739.3	2741.2	2751.2	2764.5	2771.1	2786.9	2818.5	2842.2	2843.9
170°	2752.4	2759.9	2767.4	2769.3	2769.9	2770.7	2771.1	2786.9	2818.5	2842.2	2842.2
172.5°	2767.4	2769.0	2770.7	2771.1	2771.1	2771.1	2771.1	2783.6	2808.6	2827.3	2825.8
175°	2788.0	2788.0	2788.0	2788.0	2782.4	2774.9	2771.1	2779.0	2794.8	2806.7	2806.7
177.5°	2788.0	2788.0	2788.0	2788.0	2783.6	2777.8	2774.9	2781.1	2793.6	2802.9	2801.2
180°	2788.0	2788.0	2788.0	2788.0	2788.0	2788.0	2788.0	2788.0	2788.0	2788.0	2788.0



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	933.0	933.0
2.5°	996.0	990.0
5°	1281.1	1287.1
7.5°	1725.1	1722.1
10°	2145.1	2172.1
12.5°	2451.1	2457.1
15°	2637.1	2649.1
17.5°	2709.1	2712.1
20°	2712.1	2706.1
22.5°	2679.1	2673.1
25°	2640.1	2637.1
27.5°	2604.1	2607.1
30°	2589.1	2598.1
32.5°	2589.1	2604.1
35°	2595.1	2610.1
37.5°	2592.1	2610.1
40°	2580.1	2601.1
42.5°	2547.1	2562.1
45°	2496.1	2514.1
47.5°	2430.1	2442.1
50°	2346.1	2358.1
52.5°	2241.1	2244.1
55°	2115.1	2127.1
57.5°	1980.1	1983.1
60°	1830.1	1839.1
62.5°	1671.1	1671.1
65°	1503.1	1509.1
67.5°	1329.1	1344.1
70°	1152.1	1155.1
72.5°	978.0	978.0
75°	798.0	801.0
77.5°	627.0	627.0
80°	465.0	468.0
82.5°	321.0	327.0
85°	201.0	201.0
87.5°	93.0	84.0
90°	71.1	71.1
92.5°	284.8	228.3
95°	992.7	821.4
97.5°	2378.6	2052.6
100°	3427.1	3038.7
102.5°	4458.5	4125.8
105°	5773.5	5594.7
107.5°	6634.8	6678.0
110°	6963.3	7149.6





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	6992.6	7278.7
115°	6807.1	7203.8
117.5°	6414.0	6853.9
120°	6097.1	6524.6
122.5°	5788.7	6210.3
125°	5348.5	5736.9
127.5°	4952.7	5280.3
130°	4719.4	5022.1
132.5°	4507.7	4778.8
135°	4217.7	4451.4
137.5°	3985.1	4176.3
140°	3825.4	4004.2
142.5°	3693.2	3847.0
145°	3494.9	3611.3
147.5°	3342.7	3439.1
150°	3246.8	3325.0
152.5°	3164.9	3223.9
155°	3070.7	3109.8
157.5°	2996.3	3023.7
160°	2951.8	2967.6
162.5°	2922.7	2937.7
165°	2880.7	2896.5
167.5°	2850.5	2857.2
170°	2842.2	2842.2
172.5°	2820.0	2814.2
175°	2806.7	2806.7
177.5°	2794.6	2788.0
180°	2788.0	2788.0



TEST NUMBER: P938313  
 CATALOG NUMBER: SQ4-FB-150U-075D-835-1D-UNV-STD-W-12

**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	2.30	3.02	3.42	4.13	5.68	15.50	16.21	16.61	17.32	18.87
	3H	3.00	3.64	4.12	4.76	6.32	17.33	17.97	18.45	19.09	20.65
	4H	3.29	3.90	4.42	5.02	6.59	17.97	18.58	19.10	19.70	21.27
	6H	3.53	4.09	4.67	5.22	6.80	18.40	18.96	19.54	20.09	21.66
	8H	3.59	4.13	4.74	5.27	6.84	18.52	19.05	19.66	20.19	21.76
	12H	3.61	4.11	4.76	5.25	6.84	18.58	19.09	19.73	20.22	21.82
4H	2H	9.51	10.12	10.65	11.24	12.81	15.75	16.36	16.89	17.48	19.05
	3H	11.06	11.57	12.21	12.72	14.30	17.79	18.30	18.94	19.45	21.03
	4H	11.15	11.62	12.30	12.76	14.36	18.55	19.02	19.70	20.16	21.76
	6H	11.15	11.55	12.31	12.72	14.30	19.09	19.49	20.24	20.65	22.24
	8H	11.12	11.50	12.28	12.65	14.26	19.25	19.62	20.40	20.78	22.38
	12H	11.07	11.42	12.25	12.58	14.19	19.34	19.68	20.51	20.84	22.45
8H	4H	12.59	12.96	13.74	14.11	15.72	18.60	18.98	19.76	20.13	21.73
	6H	12.82	13.13	14.00	14.33	15.93	19.23	19.54	20.40	20.73	22.33
	8H	12.84	13.11	14.02	14.28	15.90	19.45	19.72	20.63	20.89	22.51
	12H	12.80	13.04	13.98	14.21	15.86	19.59	19.83	20.77	21.00	22.65
12H	4H	12.72	13.06	13.90	14.23	15.84	18.54	18.89	19.72	20.05	21.66
	6H	13.08	13.35	14.26	14.52	16.15	19.21	19.48	20.39	20.65	22.27
	8H	13.14	13.38	14.33	14.55	16.21	19.43	19.67	20.62	20.84	22.50