

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: P938397

Luminaire Tested: SQ4-FB-150U-075D-B35-1D-UNV-STD-W-12

Issue Date: 12/17/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P938397  
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-B35-1D-UNV-STD-W-12  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

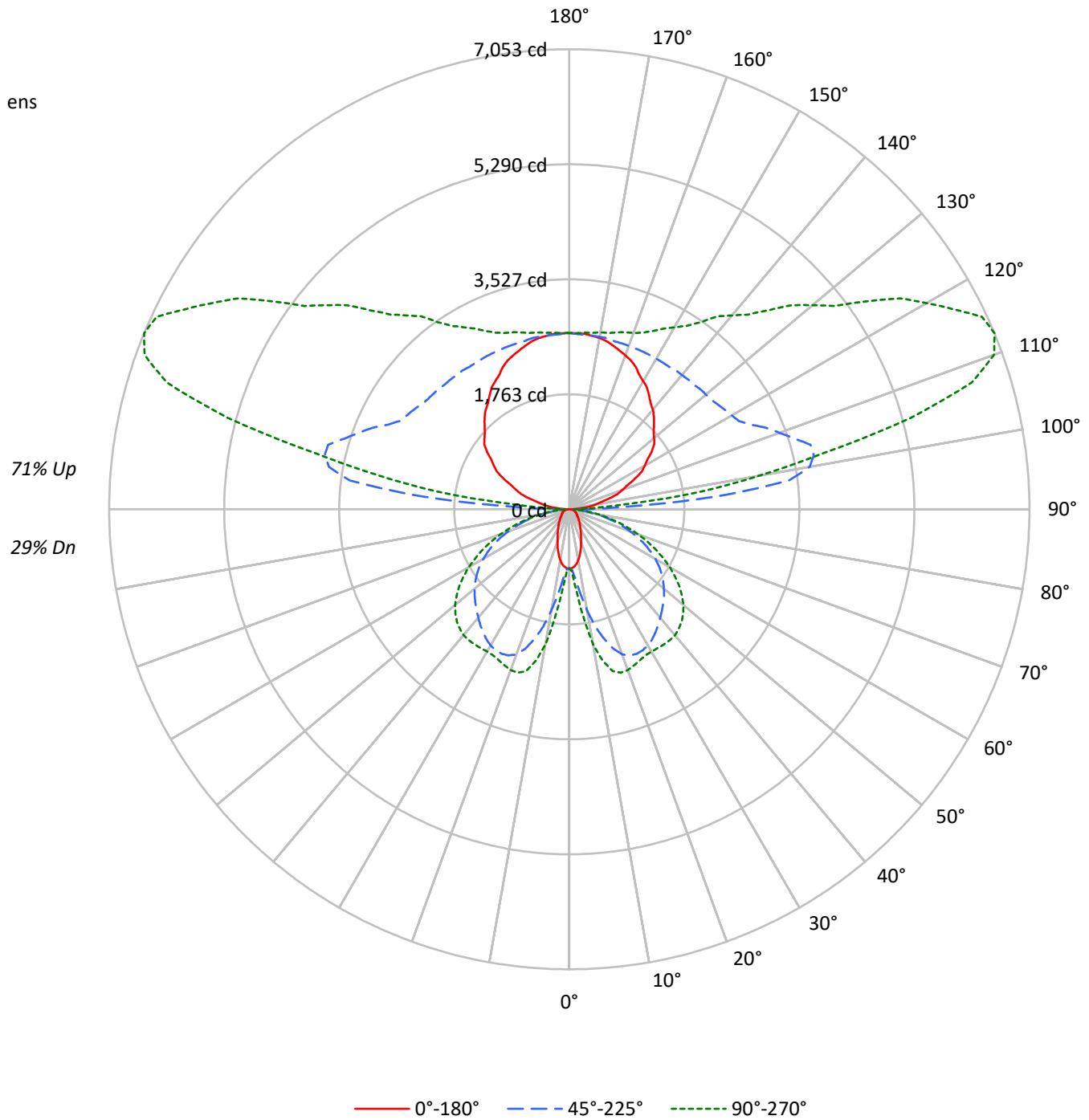
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 24517.6 lumens  
Efficiency: N/A  
Efficacy: 128.5 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): 190.8  
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

TEST NUMBER: P938397  
CATALOG NUMBER: SQ4-FB-150U-075D-B35-1D-UNV-STD-W-12

### Luminous Intensity Polar Plot





TEST NUMBER: P938397

CATALOG NUMBER: SQ4-FB-150U-075D-B35-1D-UNV-STD-W-12

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

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

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

	0°	45°	90°
0°	2796	2796	2796
5°	2733	3233	3759
10°	2480	4714	6232
15°	2108	6160	7525
20°	1717	7140	7669
25°	1433	7474	7513
30°	1209	7523	7499
35°	1070	7400	7693
40°	933	7240	7893
45°	845	7123	7924
50°	776	7018	7793
55°	743	6864	7448
60°	762	6566	6902
65°	795	6111	6153
70°	848	5332	5198
75°	943	4352	4056
80°	1038	3022	2733
85°	943	1606	1399

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7924 cd/sqm



TEST NUMBER: P938397

CATALOG NUMBER: SQ4-FB-150U-075D-B35-1D-UNV-STD-W-12

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	117.0	0.5
10°-20°	518.3	2.1
20°-30°	906.6	3.7
30°-40°	1167.1	4.8
40°-50°	1303.6	5.3
50°-60°	1248.6	5.1
60°-70°	989.5	4.0
70°-80°	581.8	2.4
80°-90°	171.9	0.7
90°-100°	1316.9	5.4
100°-110°	3462.1	14.1
110°-120°	3589.9	14.6
120°-130°	2879.5	11.7
130°-140°	2259.4	9.2
140°-150°	1734.2	7.1
150°-160°	1248.9	5.1
160°-170°	764.1	3.1
170°-180°	258.2	1.1
0°-30°	1541.9	6.3
0°-40°	2709.0	11.0
0°-60°	5261.2	21.5
0°-90°	7004.5	28.6
90°-120°	8368.8	34.1
90°-150°	15241.9	62.2
90°-180°	17513.0	71.4
0°-180°	24517.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	904	904	904	904	904	
5°	881	945	1064	1204	1247	81
15°	660	1218	2052	2488	2567	184
25°	422	1381	2445	2552	2555	194
35°	285	1320	2302	2433	2529	178
45°	195	1052	2035	2332	2436	151
55°	140	669	1727	2006	2061	127
65°	110	355	1282	1442	1462	110
75°	81	218	704	773	776	85
85°	29	67	174	192	195	31
90°	18	51	138	69	69	17
95°	174	682	2268	1170	796	193
105°	624	945	3828	5811	5421	661
115°	1108	1345	3066	6116	6980	1094
125°	1541	1728	2789	4712	5559	1368
135°	1837	2022	2702	3804	4313	1421
145°	2130	2266	2667	3246	3499	1335
155°	2408	2475	2667	2928	3013	1106
165°	2598	2633	2667	2772	2807	733
175°	2702	2702	2685	2720	2720	256
180°	2702	2702	2702	2702	2702	



TEST NUMBER: P938397

CATALOG NUMBER: SQ4-FB-150U-075D-B35-1D-UNV-STD-W-12

**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	904.1	904.1	904.1	904.1	904.1	904.1	904.1	904.1	904.1	904.1	904.1
2.5°	904.1	904.1	909.9	912.8	918.6	921.5	927.3	933.1	950.6	953.5	959.3
5°	880.8	892.4	930.2	944.8	985.5	1040.7	1064.0	1101.8	1180.3	1203.6	1218.1
7.5°	845.9	872.1	965.1	988.4	1090.1	1235.6	1296.6	1378.0	1503.0	1564.1	1613.5
10°	790.7	845.9	1011.6	1066.9	1232.7	1453.6	1567.0	1680.3	1869.3	1953.6	1985.6
12.5°	729.7	819.8	1061.1	1136.7	1375.1	1697.8	1834.4	1959.4	2174.5	2287.9	2305.3
15°	659.9	782.0	1107.7	1218.1	1526.3	1901.3	2052.4	2206.5	2407.1	2488.5	2508.8
17.5°	598.8	752.9	1151.3	1267.5	1642.6	2084.4	2238.5	2366.4	2529.2	2584.4	2599.0
20°	523.3	706.4	1180.3	1331.5	1764.6	2218.1	2366.4	2465.2	2575.7	2610.6	2616.4
22.5°	468.0	657.0	1197.8	1354.8	1846.0	2299.5	2424.5	2503.0	2578.6	2590.2	2593.1
25°	421.5	601.7	1194.9	1380.9	1915.8	2349.0	2444.9	2503.0	2546.6	2552.4	2552.4
27.5°	377.9	540.7	1183.2	1386.7	1968.1	2360.6	2436.2	2476.9	2497.2	2508.8	2508.8
30°	340.1	482.6	1154.2	1375.1	1991.4	2349.0	2410.0	2430.3	2450.7	2468.1	2476.9
32.5°	311.0	427.3	1110.6	1351.9	1994.3	2319.9	2363.5	2375.1	2404.2	2444.9	2459.4
35°	284.9	372.1	1061.1	1319.9	1976.9	2273.4	2302.4	2314.1	2372.2	2433.3	2453.6
37.5°	258.7	331.4	997.1	1264.6	1950.7	2218.1	2238.5	2258.8	2349.0	2421.6	2444.9
40°	232.6	296.5	921.5	1203.6	1910.0	2151.3	2168.7	2200.7	2319.9	2404.2	2427.4
42.5°	212.2	267.4	840.1	1139.6	1857.7	2075.7	2101.9	2148.4	2285.0	2375.1	2401.3
45°	194.8	238.4	752.9	1052.3	1790.8	1997.2	2035.0	2099.0	2244.3	2331.5	2354.8
47.5°	177.3	218.0	662.8	962.2	1718.1	1918.7	1968.1	2040.8	2189.1	2273.4	2293.7
50°	162.8	197.7	572.7	866.3	1639.6	1834.4	1892.6	1968.1	2119.3	2197.8	2224.0
52.5°	151.2	180.2	488.4	770.4	1549.5	1747.2	1814.1	1892.6	2035.0	2110.6	2128.0
55°	139.5	165.7	415.7	668.6	1456.5	1654.2	1726.9	1802.4	1942.0	2005.9	2017.6
57.5°	133.7	154.1	354.7	572.7	1357.7	1549.5	1630.9	1700.7	1831.5	1880.9	1892.6
60°	125.0	145.4	308.1	491.3	1250.1	1450.7	1520.5	1590.2	1700.7	1741.4	1750.1
62.5°	116.3	139.5	273.3	412.8	1139.6	1334.4	1404.2	1468.1	1561.2	1590.2	1601.9
65°	110.5	133.7	247.1	354.7	1026.2	1212.3	1282.1	1337.3	1412.9	1442.0	1447.8
67.5°	104.7	127.9	226.7	305.2	912.8	1090.1	1142.5	1194.9	1253.0	1282.1	1285.0
70°	95.9	122.1	209.3	270.4	796.5	950.6	994.2	1049.4	1095.9	1110.6	1119.3
72.5°	90.1	113.4	197.7	244.2	677.3	816.9	857.6	889.5	930.2	944.8	944.8
75°	81.4	101.7	186.0	218.0	555.2	668.6	703.5	735.5	767.4	773.3	764.5
77.5°	72.7	90.1	159.9	183.1	433.1	529.1	558.1	575.6	601.7	607.6	610.5
80°	61.0	78.5	125.0	142.4	314.0	389.5	409.9	424.4	447.7	447.7	453.5
82.5°	46.5	61.0	90.1	101.7	212.2	267.4	284.9	293.6	308.1	308.1	308.1
85°	29.1	37.8	58.1	66.9	127.9	162.8	174.4	177.3	189.0	191.9	191.9
87.5°	14.5	20.3	37.8	40.7	66.9	84.3	84.3	90.1	90.1	87.2	84.3
90°	18.1	32.7	47.2	50.8	79.7	118.4	137.8	122.5	91.9	68.9	68.9
92.5°	72.5	195.7	319.1	349.9	492.0	681.3	776.0	680.0	488.3	344.5	330.8
95°	174.0	399.6	625.3	681.7	1210.6	1915.7	2268.2	2024.0	1535.8	1169.5	1128.0
97.5°	301.0	500.0	699.0	748.8	1630.6	2806.3	3394.1	3239.9	2931.2	2699.7	2620.8
100°	398.8	579.4	759.9	805.0	1783.5	3088.1	3740.4	3751.7	3774.3	3791.2	3697.1
102.5°	482.3	650.7	819.1	861.2	1853.6	3176.8	3838.4	4035.0	4428.2	4723.2	4642.6
105°	623.7	766.4	909.0	944.7	1905.6	3186.8	3827.5	4268.3	5149.8	5811.0	5767.7
107.5°	768.8	901.8	1034.7	1067.9	1915.2	3045.0	3609.9	4224.7	5454.4	6376.7	6387.2
110°	866.7	986.7	1106.8	1136.8	1900.8	2919.3	3428.6	4116.0	5490.7	6521.8	6566.9



TEST NUMBER: P938397

CATALOG NUMBER: SQ4-FB-150U-075D-B35-1D-UNV-STD-W-12

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	962.8	1077.2	1191.7	1220.3	1901.4	2809.5	3263.6	3967.1	5374.1	6429.3	6498.6
115°	1107.9	1213.4	1319.0	1345.4	1918.9	2683.6	3066.0	3743.7	5099.1	6115.6	6211.8
117.5°	1251.1	1346.9	1442.8	1466.8	1954.5	2604.8	2930.0	3541.6	4764.9	5682.3	5788.9
120°	1334.4	1424.7	1514.9	1537.5	1983.5	2578.2	2875.6	3434.4	4552.1	5390.4	5493.9
122.5°	1416.0	1507.1	1598.2	1620.9	2025.3	2564.4	2833.9	3337.1	4343.6	5098.5	5200.6
125°	1541.2	1624.1	1707.2	1727.9	2081.5	2552.9	2788.6	3216.1	4071.1	4712.2	4806.3
127.5°	1642.6	1726.5	1810.3	1831.2	2137.6	2546.2	2750.5	3117.6	3851.7	4402.3	4481.6
130°	1697.1	1787.3	1877.5	1900.1	2178.7	2550.2	2736.0	3062.7	3716.3	4206.4	4279.8
132.5°	1753.3	1843.5	1933.7	1956.3	2211.9	2552.8	2723.3	3015.8	3600.9	4039.7	4105.4
135°	1836.6	1918.8	2001.1	2021.6	2248.3	2550.5	2701.6	2946.5	3436.5	3803.9	3860.5
137.5°	1921.9	2003.3	2084.7	2105.1	2302.6	2566.1	2697.9	2905.0	3319.2	3629.9	3676.2
140°	1992.7	2067.6	2142.6	2161.3	2335.9	2568.7	2685.2	2864.1	3221.9	3490.2	3533.6
142.5°	2047.0	2116.3	2185.6	2202.9	2363.7	2578.0	2685.2	2842.4	3156.6	3392.4	3429.7
145°	2130.4	2190.9	2251.3	2266.4	2399.9	2578.0	2667.1	2795.6	3052.6	3245.5	3273.7
147.5°	2213.8	2272.6	2331.4	2346.1	2453.1	2595.8	2667.1	2768.2	2970.5	3122.2	3145.6
150°	2268.2	2321.4	2374.6	2387.9	2480.9	2605.1	2667.1	2752.5	2923.4	3051.5	3070.4
152.5°	2324.4	2364.7	2405.0	2415.0	2499.1	2611.1	2667.1	2740.0	2885.9	2995.3	3009.6
155°	2407.9	2437.7	2467.5	2474.9	2539.0	2624.3	2667.1	2725.1	2841.2	2928.2	2937.7
157.5°	2469.5	2498.5	2527.4	2534.7	2578.8	2637.6	2667.1	2712.2	2802.4	2870.2	2876.9
160°	2511.2	2533.7	2556.3	2561.9	2597.0	2643.7	2667.1	2705.7	2783.1	2841.1	2845.0
162.5°	2552.8	2569.8	2586.6	2590.9	2616.3	2650.1	2667.1	2699.7	2765.0	2814.0	2817.6
165°	2598.2	2613.5	2628.8	2632.7	2644.1	2659.4	2667.1	2690.4	2737.1	2772.2	2776.1
167.5°	2639.9	2647.2	2654.4	2656.2	2665.9	2678.8	2685.2	2700.5	2731.1	2754.1	2755.7
170°	2667.1	2674.3	2681.6	2683.5	2684.0	2684.8	2685.2	2700.5	2731.1	2754.1	2754.1
172.5°	2681.6	2683.2	2684.8	2685.2	2685.2	2685.2	2685.2	2697.3	2721.5	2739.7	2738.2
175°	2701.6	2701.6	2701.6	2701.6	2696.1	2688.9	2685.2	2692.9	2708.2	2719.7	2719.7
177.5°	2701.6	2701.6	2701.6	2701.6	2697.3	2691.7	2688.9	2694.9	2707.0	2716.0	2714.4
180°	2701.6	2701.6	2701.6	2701.6	2701.6	2701.6	2701.6	2701.6	2701.6	2701.6	2701.6



TEST NUMBER: P938397

CATALOG NUMBER: SQ4-FB-150U-075D-B35-1D-UNV-STD-W-12

**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	904.1	904.1
2.5°	965.1	959.3
5°	1241.4	1247.2
7.5°	1671.6	1668.7
10°	2078.6	2104.8
12.5°	2375.1	2380.9
15°	2555.3	2567.0
17.5°	2625.1	2628.0
20°	2628.0	2622.2
22.5°	2596.0	2590.2
25°	2558.3	2555.3
27.5°	2523.4	2526.3
30°	2508.8	2517.6
32.5°	2508.8	2523.4
35°	2514.7	2529.2
37.5°	2511.7	2529.2
40°	2500.1	2520.5
42.5°	2468.1	2482.7
45°	2418.7	2436.2
47.5°	2354.8	2366.4
50°	2273.4	2285.0
52.5°	2171.6	2174.5
55°	2049.5	2061.2
57.5°	1918.7	1921.6
60°	1773.4	1782.1
62.5°	1619.3	1619.3
65°	1456.5	1462.3
67.5°	1287.9	1302.4
70°	1116.4	1119.3
72.5°	947.7	947.7
75°	773.3	776.2
77.5°	607.6	607.6
80°	450.6	453.5
82.5°	311.0	316.9
85°	194.8	194.8
87.5°	90.1	81.4
90°	68.9	68.9
92.5°	276.0	221.2
95°	961.9	795.9
97.5°	2304.9	1989.0
100°	3320.9	2944.5
102.5°	4320.3	3997.9
105°	5594.5	5421.3
107.5°	6429.1	6471.0
110°	6747.4	6928.0





TEST NUMBER: P938397

CATALOG NUMBER: SQ4-FB-150U-075D-B35-1D-UNV-STD-W-12

**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	6775.8	7053.1
115°	6596.1	6980.5
117.5°	6215.2	6641.4
120°	5908.1	6322.3
122.5°	5609.3	6017.8
125°	5182.7	5559.1
127.5°	4799.2	5116.6
130°	4573.1	4866.4
132.5°	4368.0	4630.7
135°	4087.0	4313.4
137.5°	3861.6	4046.8
140°	3706.8	3880.1
142.5°	3578.7	3727.7
145°	3386.6	3499.3
147.5°	3239.1	3332.5
150°	3146.1	3221.9
152.5°	3066.8	3124.0
155°	2975.5	3013.4
157.5°	2903.4	2930.0
160°	2860.3	2875.6
162.5°	2832.1	2846.6
165°	2791.4	2806.7
167.5°	2762.1	2768.6
170°	2754.1	2754.1
172.5°	2732.6	2727.0
175°	2719.7	2719.7
177.5°	2708.0	2701.6
180°	2701.6	2701.6



TEST NUMBER: P938397  
 CATALOG NUMBER: SQ4-FB-150U-075D-B35-1D-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	2.19	2.91	3.31	4.02	5.57	15.39	16.10	16.50	17.22	18.76
	3H	2.89	3.53	4.01	4.65	6.21	17.22	17.86	18.34	18.98	20.55
	4H	3.18	3.79	4.31	4.91	6.48	17.86	18.47	19.00	19.59	21.16
	6H	3.42	3.98	4.56	5.11	6.69	18.29	18.85	19.43	19.98	21.55
	8H	3.48	4.02	4.63	5.16	6.73	18.41	18.94	19.55	20.08	21.65
	12H	3.50	4.01	4.65	5.14	6.73	18.47	18.98	19.62	20.12	21.71
4H	2H	9.40	10.01	10.54	11.13	12.70	15.64	16.25	16.78	17.37	18.94
	3H	10.95	11.46	12.10	12.61	14.19	17.68	18.19	18.83	19.34	20.92
	4H	11.04	11.51	12.19	12.65	14.25	18.44	18.91	19.59	20.05	21.65
	6H	11.04	11.45	12.20	12.61	14.19	18.98	19.38	20.13	20.54	22.13
	8H	11.01	11.39	12.17	12.54	14.15	19.14	19.51	20.29	20.67	22.27
	12H	10.96	11.31	12.14	12.47	14.08	19.23	19.57	20.40	20.73	22.34
8H	4H	12.48	12.85	13.63	14.00	15.61	18.49	18.87	19.65	20.02	21.62
	6H	12.71	13.02	13.89	14.22	15.82	19.12	19.43	20.29	20.62	22.22
	8H	12.73	13.00	13.91	14.17	15.79	19.34	19.61	20.52	20.78	22.40
	12H	12.69	12.93	13.87	14.10	15.75	19.48	19.72	20.66	20.89	22.54
12H	4H	12.61	12.95	13.79	14.12	15.73	18.43	18.78	19.61	19.94	21.55
	6H	12.97	13.24	14.15	14.41	16.04	19.10	19.37	20.28	20.54	22.17
	8H	13.03	13.27	14.22	14.44	16.10	19.32	19.56	20.51	20.73	22.39