

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: P938477

Luminaire Tested: SQ4-FB-150U-100D-B2750-1D-UNV-STD-W-12-2700K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938477
REPORT IS A COMBINATION OF REPORTS P933623 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-100D-B2750-1D-UNV-STD-W-12-2700K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

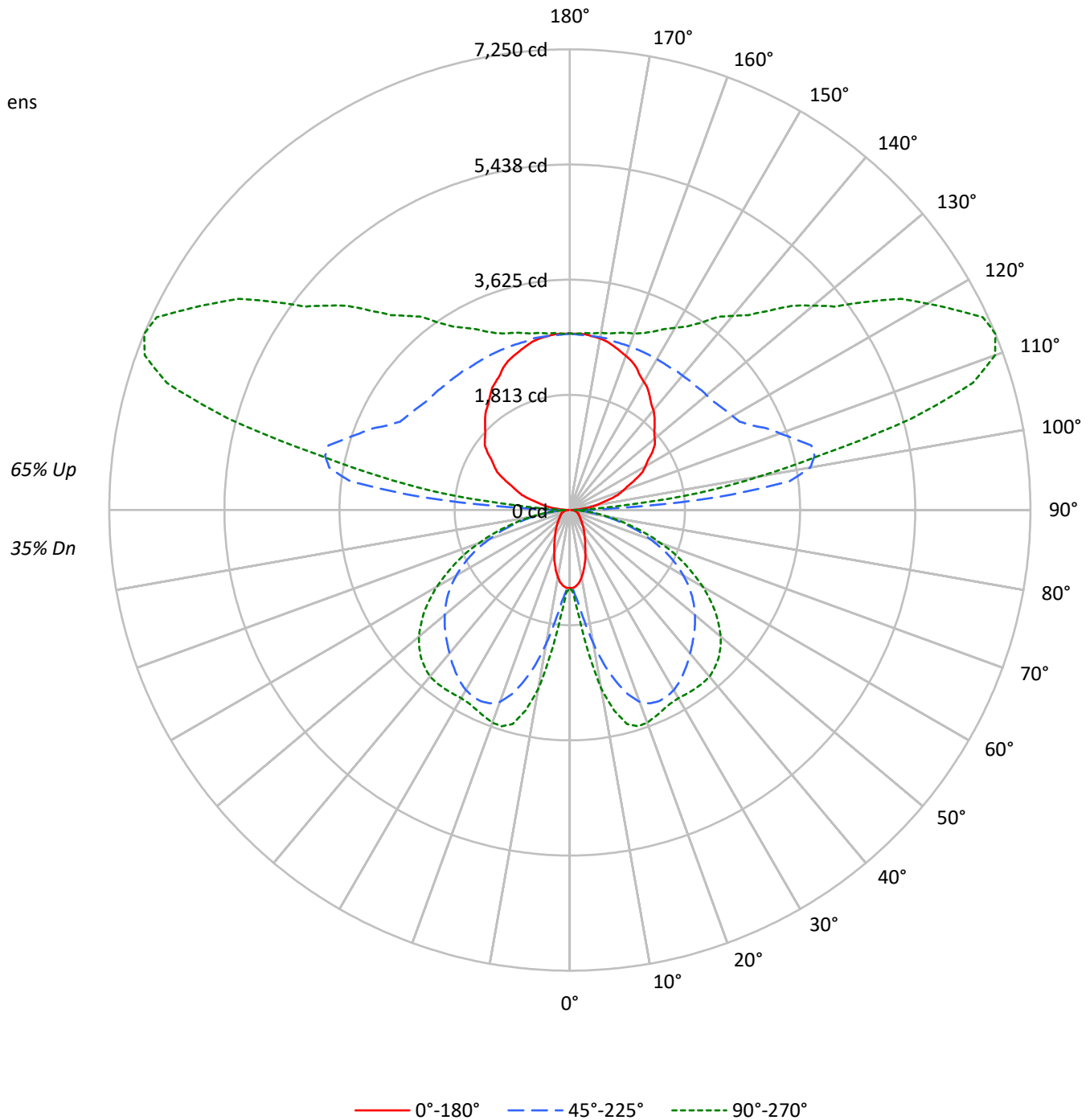
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 27509.5 lumens
Efficiency: N/A
Efficacy: 126.7 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): 217.2
Input Voltage (V): NR
Input Current (A_{in}): 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	103	103	103	103	93	93	93	93	75	75	75	58	58	58	42	42	42	35			35
1	94	90	86	82	85	81	78	75	65	63	60	50	49	47	36	35	35	28			28
2	85	78	72	66	77	70	65	61	56	53	49	43	41	39	32	30	29	23			23
3	77	68	61	55	69	61	55	50	49	45	41	38	35	32	28	26	24	19			19
4	71	60	52	46	63	54	47	42	43	38	34	34	30	27	24	22	20	16			16
5	64	53	45	39	58	48	41	36	39	33	29	30	26	23	22	19	17	14			14
6	59	47	39	33	53	43	36	30	34	29	25	27	23	20	19	17	15	12			12
7	54	42	34	29	49	38	31	26	31	26	22	24	20	17	18	15	13	10			10
8	50	38	30	25	45	35	28	23	28	23	19	22	18	15	16	13	11	9			9
9	47	35	27	22	42	31	25	20	26	20	17	20	16	14	15	12	10	8			8
10	43	31	24	20	39	29	22	18	23	18	15	18	15	12	13	11	9	7			7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3798	3798	3798
5°	3711	4390	5104
10°	3368	6401	8462
15°	2863	8365	10218
20°	2332	9696	10414
25°	1946	10149	10202
30°	1641	10216	10183
35°	1452	10049	10446
40°	1266	9831	10719
45°	1147	9672	10760
50°	1053	9530	10582
55°	1010	9321	10113
60°	1035	8916	9373
65°	1079	8298	8355
70°	1152	7242	7058
75°	1282	5910	5508
80°	1410	4104	3711
85°	1277	2180	1900

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10760 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.8	0.6
10°-20°	703.9	2.6
20°-30°	1231.2	4.5
30°-40°	1584.9	5.8
40°-50°	1770.3	6.4
50°-60°	1695.5	6.2
60°-70°	1343.7	4.9
70°-80°	790.1	2.9
80°-90°	230.1	0.8
90°-100°	1353.6	4.9
100°-110°	3558.6	12.9
110°-120°	3689.9	13.4
120°-130°	2959.7	10.8
130°-140°	2322.3	8.4
140°-150°	1782.5	6.5
150°-160°	1283.7	4.7
160°-170°	785.4	2.9
170°-180°	265.4	1.0
0°-30°	2093.9	7.6
0°-40°	3678.8	13.4
0°-60°	7144.5	26.0
0°-90°	9508.5	34.6
90°-120°	8602.0	31.3
90°-150°	15666.6	56.9
90°-180°	18001.0	65.4
0°-180°	27509.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1228	1228	1228	1228	1228	
5°	1196	1283	1445	1634	1694	110
15°	896	1654	2787	3379	3486	249
25°	572	1875	3320	3466	3470	264
35°	387	1792	3127	3304	3434	242
45°	264	1429	2763	3166	3308	205
55°	190	908	2345	2724	2799	173
65°	150	482	1741	1958	1986	149
75°	111	296	955	1050	1054	116
85°	39	91	237	261	264	42
90°	19	52	142	71	71	18
95°	179	701	2331	1202	818	199
105°	641	971	3934	5973	5572	680
115°	1139	1383	3151	6286	7175	1125
125°	1584	1776	2866	4844	5714	1406
135°	1888	2078	2777	3910	4434	1461
145°	2190	2330	2741	3336	3597	1372
155°	2475	2544	2741	3010	3097	1137
165°	2671	2706	2741	2850	2885	754
175°	2777	2777	2760	2796	2796	264
180°	2777	2777	2777	2777	2777	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1227.8	1227.8	1227.8	1227.8	1227.8	1227.8	1227.8	1227.8	1227.8	1227.8	1227.8
2.5°	1227.8	1227.8	1235.6	1239.6	1247.5	1251.5	1259.3	1267.2	1290.9	1294.9	1302.8
5°	1196.2	1211.9	1263.3	1283.0	1338.3	1413.3	1444.9	1496.2	1602.8	1634.3	1654.1
7.5°	1148.8	1184.3	1310.6	1342.2	1480.4	1677.8	1760.7	1871.2	2041.0	2123.9	2191.0
10°	1073.8	1148.8	1373.8	1448.8	1673.9	1973.9	2127.9	2281.8	2538.4	2652.8	2696.3
12.5°	990.9	1113.2	1440.9	1543.6	1867.3	2305.4	2491.0	2660.8	2952.9	3106.9	3130.5
15°	896.1	1061.9	1504.1	1654.1	2072.6	2581.8	2787.1	2996.4	3268.8	3379.2	3406.9
17.5°	813.2	1022.5	1563.3	1721.2	2230.4	2830.5	3039.8	3213.5	3434.5	3509.5	3529.3
20°	710.5	959.3	1602.8	1808.0	2396.3	3012.1	3213.5	3347.7	3497.7	3545.1	3552.9
22.5°	635.5	892.2	1626.5	1839.6	2506.8	3122.7	3292.4	3399.0	3501.6	3517.5	3521.4
25°	572.4	817.2	1622.5	1875.2	2601.6	3189.8	3320.1	3399.0	3458.2	3466.1	3466.1
27.5°	513.2	734.3	1606.7	1883.0	2672.7	3205.5	3308.2	3363.5	3391.1	3406.9	3406.9
30°	461.8	655.4	1567.2	1867.3	2704.2	3189.8	3272.7	3300.3	3327.9	3351.6	3363.5
32.5°	422.4	580.3	1508.0	1835.7	2708.1	3150.3	3209.5	3225.3	3264.8	3320.1	3339.8
35°	386.8	505.3	1440.9	1792.3	2684.4	3087.1	3126.6	3142.4	3221.4	3304.2	3331.9
37.5°	351.4	450.1	1354.1	1717.3	2649.0	3012.1	3039.8	3067.4	3189.8	3288.5	3320.1
40°	315.8	402.7	1251.5	1634.3	2593.7	2921.4	2945.0	2988.4	3150.3	3264.8	3296.4
42.5°	288.1	363.2	1140.9	1547.5	2522.6	2818.7	2854.2	2917.4	3102.9	3225.3	3260.8
45°	264.5	323.7	1022.5	1429.1	2431.8	2712.1	2763.4	2850.3	3047.7	3166.1	3197.7
47.5°	240.8	296.1	900.1	1306.8	2333.1	2605.5	2672.7	2771.3	2972.7	3087.1	3114.8
50°	221.1	268.4	777.7	1176.5	2226.6	2491.0	2570.0	2672.7	2877.9	2984.5	3020.1
52.5°	205.3	244.7	663.2	1046.2	2104.1	2372.6	2463.4	2570.0	2763.4	2866.1	2889.8
55°	189.5	225.0	564.5	908.0	1977.9	2246.3	2345.0	2447.6	2637.1	2724.0	2739.7
57.5°	181.6	209.3	481.7	777.7	1843.6	2104.1	2214.7	2309.4	2487.1	2554.1	2570.0
60°	169.7	197.4	418.4	667.1	1697.5	1969.9	2064.7	2159.4	2309.4	2364.7	2376.6
62.5°	157.9	189.5	371.1	560.5	1547.5	1812.0	1906.7	1993.6	2120.0	2159.4	2175.2
65°	150.0	181.6	335.6	481.7	1393.6	1646.2	1740.9	1816.0	1918.6	1958.0	1966.0
67.5°	142.1	173.7	308.0	414.5	1239.6	1480.4	1551.5	1622.5	1701.5	1740.9	1744.9
70°	130.3	165.8	284.3	367.1	1081.7	1290.9	1350.2	1425.2	1488.3	1508.0	1519.9
72.5°	122.4	154.0	268.4	331.6	919.8	1109.3	1164.6	1208.0	1263.3	1283.0	1283.0
75°	110.6	138.1	252.7	296.1	754.0	908.0	955.4	998.8	1042.2	1050.1	1038.2
77.5°	98.7	122.4	217.1	248.7	588.2	718.5	758.0	781.7	817.2	825.1	829.1
80°	82.9	106.6	169.7	193.4	426.4	529.0	556.7	576.4	608.0	608.0	615.8
82.5°	63.1	82.9	122.4	138.1	288.1	363.2	386.8	398.7	418.4	418.4	418.4
85°	39.4	51.3	79.0	90.8	173.7	221.1	236.8	240.8	256.6	260.6	260.6
87.5°	19.7	27.6	51.3	55.3	90.8	114.4	114.4	122.4	122.4	118.4	114.4
90°	18.6	33.6	48.5	52.2	82.0	121.7	141.6	125.9	94.4	70.8	70.8
92.5°	74.5	201.2	328.0	359.7	505.7	700.3	797.6	699.0	501.9	354.1	340.0
95°	178.9	410.8	642.7	700.7	1244.3	1969.1	2331.4	2080.4	1578.6	1202.1	1159.4
97.5°	309.4	513.9	718.5	769.7	1676.1	2884.5	3488.7	3330.1	3012.9	2775.0	2693.8
100°	410.0	595.5	781.1	827.5	1833.2	3174.2	3844.7	3856.2	3879.4	3896.8	3800.1
102.5°	495.7	668.8	841.9	885.2	1905.2	3265.3	3945.4	4147.4	4551.6	4854.8	4771.9
105°	641.1	787.7	934.3	971.0	1958.7	3275.6	3934.1	4387.2	5293.3	5972.9	5928.4
107.5°	790.2	926.9	1063.5	1097.7	1968.6	3129.8	3710.5	4342.5	5606.4	6554.4	6565.1
110°	890.8	1014.2	1137.6	1168.5	1953.8	3000.6	3524.1	4230.7	5643.7	6703.5	6749.9



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	989.6	1107.3	1224.9	1254.3	1954.4	2887.8	3354.5	4077.6	5523.8	6608.5	6679.7
115°	1138.7	1247.2	1355.8	1382.8	1972.4	2758.4	3151.4	3848.0	5241.2	6286.1	6384.9
117.5°	1285.9	1384.4	1483.0	1507.6	2008.9	2677.3	3011.6	3640.3	4897.6	5840.6	5950.2
120°	1371.6	1464.4	1557.1	1580.4	2038.8	2650.1	2955.7	3530.1	4678.9	5540.5	5647.0
122.5°	1455.5	1549.1	1642.7	1666.1	2081.7	2635.8	2912.9	3430.1	4464.7	5240.6	5345.5
125°	1584.1	1669.4	1754.8	1776.1	2139.5	2624.1	2866.3	3305.7	4184.5	4843.5	4940.3
127.5°	1688.4	1774.6	1860.7	1882.2	2197.2	2617.2	2827.1	3204.4	3959.0	4524.9	4606.5
130°	1744.4	1837.1	1929.8	1953.1	2239.4	2621.3	2812.2	3148.1	3819.9	4323.6	4399.0
132.5°	1802.2	1894.9	1987.6	2010.8	2273.6	2624.0	2799.2	3099.9	3701.2	4152.2	4219.8
135°	1887.8	1972.3	2056.8	2078.0	2310.9	2621.6	2776.8	3028.6	3532.2	3909.9	3968.1
137.5°	1975.5	2059.1	2142.8	2163.7	2366.8	2637.6	2773.1	2985.9	3411.7	3731.0	3778.6
140°	2048.2	2125.2	2202.3	2221.5	2401.0	2640.3	2760.0	2943.9	3311.7	3587.5	3632.0
142.5°	2104.0	2175.3	2246.5	2264.3	2429.5	2649.9	2760.0	2921.6	3244.6	3486.9	3525.2
145°	2189.8	2252.0	2314.0	2329.5	2466.8	2649.9	2741.4	2873.5	3137.7	3335.9	3364.9
147.5°	2275.5	2335.9	2396.4	2411.5	2521.5	2668.1	2741.4	2845.4	3053.2	3209.2	3233.2
150°	2331.4	2386.1	2440.8	2454.4	2550.1	2677.6	2741.4	2829.2	3004.8	3136.5	3155.9
152.5°	2389.2	2430.6	2472.0	2482.3	2568.7	2683.8	2741.4	2816.4	2966.3	3078.7	3093.5
155°	2475.0	2505.6	2536.2	2543.9	2609.7	2697.5	2741.4	2801.1	2920.4	3009.8	3019.6
157.5°	2538.3	2568.1	2597.9	2605.3	2650.7	2711.1	2741.4	2787.8	2880.5	2950.2	2957.0
160°	2581.1	2604.3	2627.5	2633.3	2669.4	2717.4	2741.4	2781.1	2860.6	2920.3	2924.3
162.5°	2624.0	2641.4	2658.7	2663.1	2689.2	2724.0	2741.4	2775.0	2842.1	2892.4	2896.1
165°	2670.6	2686.3	2702.0	2706.0	2717.8	2733.5	2741.4	2765.4	2813.4	2849.5	2853.4
167.5°	2713.5	2721.0	2728.3	2730.2	2740.2	2753.4	2760.0	2775.8	2807.2	2830.8	2832.5
170°	2741.4	2748.9	2756.3	2758.2	2758.8	2759.6	2760.0	2775.8	2807.2	2830.8	2830.8
172.5°	2756.3	2757.9	2759.6	2760.0	2760.0	2760.0	2760.0	2772.5	2797.4	2816.0	2814.5
175°	2776.8	2776.8	2776.8	2776.8	2771.3	2763.8	2760.0	2767.9	2783.6	2795.5	2795.5
177.5°	2776.8	2776.8	2776.8	2776.8	2772.5	2766.7	2763.8	2770.0	2782.4	2791.7	2790.0
180°	2776.8	2776.8	2776.8	2776.8	2776.8	2776.8	2776.8	2776.8	2776.8	2776.8	2776.8



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1227.8	1227.8
2.5°	1310.6	1302.8
5°	1685.7	1693.6
7.5°	2270.0	2266.0
10°	2822.7	2858.1
12.5°	3225.3	3233.2
15°	3470.1	3485.9
17.5°	3564.8	3568.8
20°	3568.8	3560.9
22.5°	3525.3	3517.5
25°	3474.0	3470.1
27.5°	3426.6	3430.6
30°	3406.9	3418.8
32.5°	3406.9	3426.6
35°	3414.8	3434.5
37.5°	3410.8	3434.5
40°	3395.1	3422.7
42.5°	3351.6	3371.4
45°	3284.5	3308.2
47.5°	3197.7	3213.5
50°	3087.1	3102.9
52.5°	2949.0	2952.9
55°	2783.1	2799.0
57.5°	2605.5	2609.4
60°	2408.1	2420.0
62.5°	2198.9	2198.9
65°	1977.9	1985.7
67.5°	1748.9	1768.6
70°	1515.9	1519.9
72.5°	1286.9	1286.9
75°	1050.1	1054.1
77.5°	825.1	825.1
80°	611.9	615.8
82.5°	422.4	430.3
85°	264.5	264.5
87.5°	122.4	110.6
90°	70.8	70.8
92.5°	283.7	227.4
95°	988.7	818.1
97.5°	2369.1	2044.4
100°	3413.4	3026.5
102.5°	4440.7	4109.3
105°	5750.4	5572.3
107.5°	6608.3	6651.3
110°	6935.4	7121.0



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	6964.6	7249.6
115°	6779.9	7175.0
117.5°	6388.3	6826.5
120°	6072.7	6498.5
122.5°	5765.5	6185.5
125°	5327.1	5714.0
127.5°	4932.9	5259.2
130°	4700.5	5002.0
132.5°	4489.7	4759.7
135°	4200.8	4433.6
137.5°	3969.2	4159.6
140°	3810.1	3988.2
142.5°	3678.4	3831.6
145°	3480.9	3596.9
147.5°	3329.3	3425.3
150°	3233.8	3311.7
152.5°	3152.2	3211.0
155°	3058.4	3097.4
157.5°	2984.3	3011.6
160°	2940.0	2955.7
162.5°	2911.0	2925.9
165°	2869.2	2884.9
167.5°	2839.1	2845.8
170°	2830.8	2830.8
172.5°	2808.7	2802.9
175°	2795.5	2795.5
177.5°	2783.4	2776.8
180°	2776.8	2776.8



TEST NUMBER: P938477
 CATALOG NUMBER: SQ4-FB-150U-100D-B2750-1D-UNV-STD-W-12-2700K

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	4.04	4.80	5.11	5.88	7.35	17.23	17.99	18.30	19.07	20.54
	3H	4.74	5.42	5.82	6.51	8.00	19.07	19.75	20.15	20.84	22.33
	4H	5.03	5.68	6.12	6.77	8.26	19.71	20.36	20.80	21.45	22.95
	6H	5.27	5.87	6.38	6.96	8.47	20.14	20.74	21.24	21.83	23.34
	8H	5.34	5.91	6.45	7.02	8.52	20.26	20.83	21.37	21.94	23.44
	12H	5.35	5.89	6.46	7.00	8.52	20.33	20.87	21.44	21.97	23.50
4H	2H	11.25	11.90	12.35	12.99	14.48	17.49	18.14	18.59	19.23	20.73
	3H	12.81	13.35	13.91	14.46	15.97	19.53	20.08	20.64	21.19	22.70
	4H	12.90	13.40	14.01	14.50	16.03	20.30	20.80	21.41	21.90	23.43
	6H	12.90	13.33	14.02	14.46	15.98	20.84	21.27	21.96	22.39	23.92
	8H	12.88	13.28	13.99	14.40	15.94	21.00	21.40	22.12	22.52	24.06
	12H	12.83	13.19	13.96	14.32	15.87	21.09	21.45	22.23	22.59	24.13
8H	4H	14.34	14.74	15.46	15.86	17.40	20.35	20.75	21.47	21.87	23.41
	6H	14.57	14.91	15.71	16.07	17.60	20.98	21.31	22.12	22.47	24.01
	8H	14.59	14.88	15.74	16.02	17.58	21.20	21.49	22.35	22.63	24.19
	12H	14.55	14.81	15.71	15.95	17.54	21.34	21.60	22.50	22.74	24.33
12H	4H	14.48	14.84	15.61	15.97	17.52	20.30	20.66	21.43	21.79	23.34
	6H	14.83	15.12	15.98	16.26	17.82	20.96	21.25	22.11	22.39	23.95
	8H	14.90	15.15	16.05	16.29	17.88	21.19	21.44	22.34	22.58	24.17