

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: P938513

Luminaire Tested: SQ4-FB-150U-125D-835-1D-UNV-STD-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938513
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-835-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

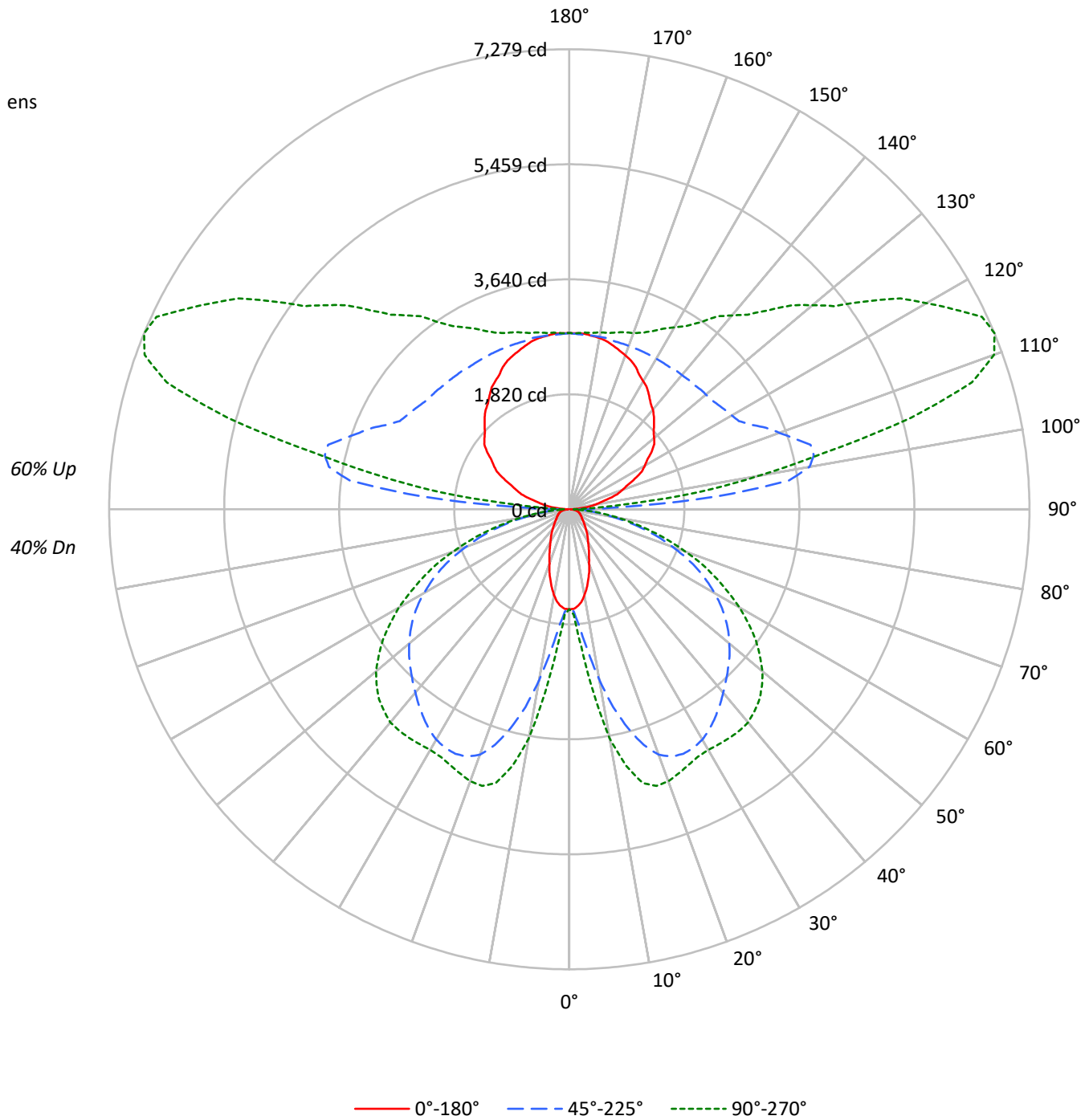
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 30298.0 lumens
Efficiency: N/A
Efficacy: 121.4 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 (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				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°	4884	4884	4884
5°	4772	5646	6564
10°	4331	8232	10882
15°	3682	10757	13140
20°	2999	12469	13392
25°	2502	13051	13120
30°	2111	13137	13095
35°	1868	12922	13434
40°	1628	12643	13784
45°	1475	12439	13838
50°	1355	12256	13609
55°	1299	11987	13005
60°	1331	11466	12053
65°	1387	10671	10744
70°	1481	9312	9077
75°	1647	7600	7083
80°	1813	5277	4773
85°	1646	2805	2443

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 13838 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	204.2	0.7
10°-20°	905.2	3.0
20°-30°	1583.3	5.2
30°-40°	2038.1	6.7
40°-50°	2276.5	7.5
50°-60°	2180.4	7.2
60°-70°	1728.0	5.7
70°-80°	1016.1	3.4
80°-90°	292.9	1.0
90°-100°	1359.0	4.5
100°-110°	3572.9	11.8
110°-120°	3704.7	12.2
120°-130°	2971.6	9.8
130°-140°	2331.7	7.7
140°-150°	1789.6	5.9
150°-160°	1288.8	4.3
160°-170°	788.6	2.6
170°-180°	266.4	0.9
0°-30°	2692.7	8.9
0°-40°	4730.8	15.6
0°-60°	9187.7	30.3
0°-90°	12224.6	40.3
90°-120°	8636.6	28.5
90°-150°	15729.5	51.9
90°-180°	18073.0	59.7
0°-180°	30298.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1579	1579	1579	1579	1579	
5°	1538	1650	1858	2102	2178	142
15°	1152	2127	3584	4346	4483	321
25°	736	2411	4270	4457	4462	339
35°	498	2305	4021	4249	4417	311
45°	340	1838	3554	4072	4254	263
55°	244	1168	3016	3503	3599	222
65°	193	619	2239	2518	2554	191
75°	142	381	1229	1350	1356	149
85°	51	117	305	335	340	54
90°	19	52	142	71	71	19
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°	1578.9	1578.9	1578.9	1578.9	1578.9	1578.9	1578.9	1578.9	1578.9	1578.9	1578.9
2.5°	1578.9	1578.9	1589.0	1594.1	1604.2	1609.3	1619.5	1629.6	1660.1	1665.2	1675.3
5°	1538.2	1558.5	1624.5	1649.9	1721.0	1817.5	1858.1	1924.1	2061.1	2101.8	2127.1
7.5°	1477.3	1523.0	1685.5	1726.1	1903.8	2157.6	2264.2	2406.4	2624.7	2731.3	2817.6
10°	1380.9	1477.3	1766.7	1863.1	2152.5	2538.3	2736.3	2934.3	3264.3	3411.5	3467.4
12.5°	1274.3	1431.6	1853.0	1985.0	2401.3	2964.8	3203.4	3421.7	3797.4	3995.4	4025.8
15°	1152.4	1365.6	1934.2	2127.1	2665.3	3320.2	3584.1	3853.2	4203.5	4345.7	4381.2
17.5°	1045.8	1314.9	2010.4	2213.4	2868.3	3640.0	3909.1	4132.4	4416.7	4513.2	4538.6
20°	913.8	1233.6	2061.1	2325.1	3081.6	3873.5	4132.4	4305.0	4498.0	4558.9	4569.0
22.5°	817.3	1147.3	2091.6	2365.7	3223.7	4015.7	4234.0	4371.0	4503.0	4523.3	4528.4
25°	736.1	1050.9	2086.5	2411.4	3345.5	4102.0	4269.5	4371.0	4447.2	4457.3	4457.3
27.5°	660.0	944.3	2066.2	2421.6	3436.9	4122.3	4254.3	4325.3	4360.9	4381.2	4381.2
30°	594.0	842.7	2015.4	2401.3	3477.5	4102.0	4208.6	4244.1	4279.7	4310.1	4325.3
32.5°	543.2	746.3	1939.3	2360.7	3482.6	4051.2	4127.4	4147.7	4198.4	4269.5	4294.9
35°	497.5	649.8	1853.0	2304.8	3452.2	3970.0	4020.7	4041.1	4142.6	4249.2	4284.7
37.5°	451.8	578.7	1741.3	2208.4	3406.5	3873.5	3909.1	3944.6	4102.0	4228.9	4269.5
40°	406.1	517.8	1609.3	2101.8	3335.4	3756.8	3787.2	3843.1	4051.2	4198.4	4239.0
42.5°	370.6	467.1	1467.2	1990.1	3244.0	3624.8	3670.5	3751.7	3990.3	4147.7	4193.4
45°	340.1	416.3	1314.9	1837.8	3127.2	3487.7	3553.7	3665.4	3919.2	4071.5	4112.1
47.5°	309.7	380.8	1157.5	1680.4	3000.3	3350.6	3436.9	3563.8	3822.8	3970.0	4005.5
50°	284.3	345.2	1000.1	1512.9	2863.3	3203.4	3304.9	3436.9	3700.9	3838.0	3883.7
52.5°	264.0	314.8	852.9	1345.3	2705.9	3051.1	3167.9	3304.9	3553.7	3685.7	3716.1
55°	243.7	289.4	726.0	1167.6	2543.4	2888.6	3015.6	3147.6	3391.2	3502.9	3523.2
57.5°	233.5	269.1	619.4	1000.1	2370.8	2705.9	2848.0	2969.9	3198.3	3284.6	3304.9
60°	218.3	253.8	538.1	858.0	2183.0	2533.3	2655.1	2777.0	2969.9	3040.9	3056.2
62.5°	203.1	243.7	477.2	720.9	1990.1	2330.2	2452.0	2563.7	2726.2	2777.0	2797.3
65°	192.9	233.5	431.5	619.4	1792.1	2117.0	2238.8	2335.3	2467.3	2518.0	2528.2
67.5°	182.8	223.4	396.0	533.1	1594.1	1903.8	1995.1	2086.5	2188.1	2238.8	2243.9
70°	167.5	213.2	365.5	472.1	1391.0	1660.1	1736.2	1832.7	1913.9	1939.3	1954.5
72.5°	157.4	198.0	345.2	426.4	1182.9	1426.6	1497.6	1553.5	1624.5	1649.9	1649.9
75°	142.1	177.7	324.9	380.8	969.6	1167.6	1228.6	1284.4	1340.2	1350.4	1335.2
77.5°	126.9	157.4	279.2	319.8	756.4	924.0	974.7	1005.2	1050.9	1061.0	1066.1
80°	106.6	137.1	218.3	248.8	548.3	680.3	715.8	741.2	781.8	781.8	792.0
82.5°	81.2	106.6	157.4	177.7	370.6	467.1	497.5	512.7	538.1	538.1	538.1
85°	50.8	66.0	101.5	116.8	223.4	284.3	304.6	309.7	330.0	335.1	335.1
87.5°	25.4	35.5	66.0	71.1	116.8	147.2	147.2	157.4	157.4	152.3	147.2
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°	1578.9	1578.9
2.5°	1685.5	1675.3
5°	2167.8	2177.9
7.5°	2919.1	2914.0
10°	3629.8	3675.5
12.5°	4147.7	4157.8
15°	4462.4	4482.7
17.5°	4584.3	4589.3
20°	4589.3	4579.2
22.5°	4533.5	4523.3
25°	4467.5	4462.4
27.5°	4406.6	4411.7
30°	4381.2	4396.4
32.5°	4381.2	4406.6
35°	4391.3	4416.7
37.5°	4386.3	4416.7
40°	4366.0	4401.5
42.5°	4310.1	4335.5
45°	4223.8	4254.3
47.5°	4112.1	4132.4
50°	3970.0	3990.3
52.5°	3792.3	3797.4
55°	3579.1	3599.4
57.5°	3350.6	3355.7
60°	3096.8	3112.0
62.5°	2827.7	2827.7
65°	2543.4	2553.6
67.5°	2249.0	2274.4
70°	1949.5	1954.5
72.5°	1655.0	1655.0
75°	1350.4	1355.5
77.5°	1061.0	1061.0
80°	786.9	792.0
82.5°	543.2	553.4
85°	340.1	340.1
87.5°	157.4	142.1
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: P938513
 CATALOG NUMBER: SQ4-FB-150U-125D-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	5.57	6.38	6.60	7.42	8.82	18.76	19.57	19.79	20.61	22.01
	3H	6.27	7.00	7.31	8.05	9.47	20.60	21.33	21.64	22.38	23.80
	4H	6.57	7.26	7.62	8.31	9.73	21.25	21.94	22.30	22.99	24.42
	6H	6.81	7.45	7.87	8.50	9.94	21.68	22.32	22.74	23.37	24.81
	8H	6.88	7.49	7.94	8.56	9.99	21.80	22.41	22.87	23.48	24.91
	12H	6.90	7.47	7.97	8.54	10.00	21.87	22.45	22.94	23.51	24.97
4H	2H	12.79	13.48	13.84	14.53	15.95	19.03	19.72	20.08	20.77	22.20
	3H	14.35	14.93	15.41	16.00	17.44	21.07	21.65	22.14	22.73	24.17
	4H	14.44	14.97	15.51	16.04	17.50	21.84	22.37	22.91	23.44	24.90
	6H	14.45	14.90	15.53	16.00	17.45	22.38	22.84	23.46	23.93	25.39
	8H	14.42	14.85	15.50	15.93	17.41	22.55	22.97	23.63	24.06	25.53
	12H	14.38	14.76	15.48	15.86	17.34	22.64	23.03	23.74	24.12	25.60
8H	4H	15.88	16.31	16.96	17.40	18.87	21.90	22.32	22.98	23.41	24.88
	6H	16.12	16.48	17.23	17.60	19.07	22.53	22.88	23.63	24.01	25.48
	8H	16.14	16.45	17.25	17.56	19.05	22.75	23.06	23.86	24.17	25.66
	12H	16.11	16.38	17.22	17.48	19.01	22.90	23.17	24.01	24.27	25.80
12H	4H	16.03	16.41	17.13	17.51	18.99	21.85	22.23	22.95	23.33	24.81
	6H	16.38	16.69	17.49	17.80	19.29	22.51	22.82	23.62	23.93	25.42
	8H	16.45	16.72	17.57	17.83	19.35	22.74	23.01	23.86	24.12	25.65