

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: P938517

Luminaire Tested: SQ4-FB-150U-125D-840-1D-UNV-STD-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938517
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-840-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

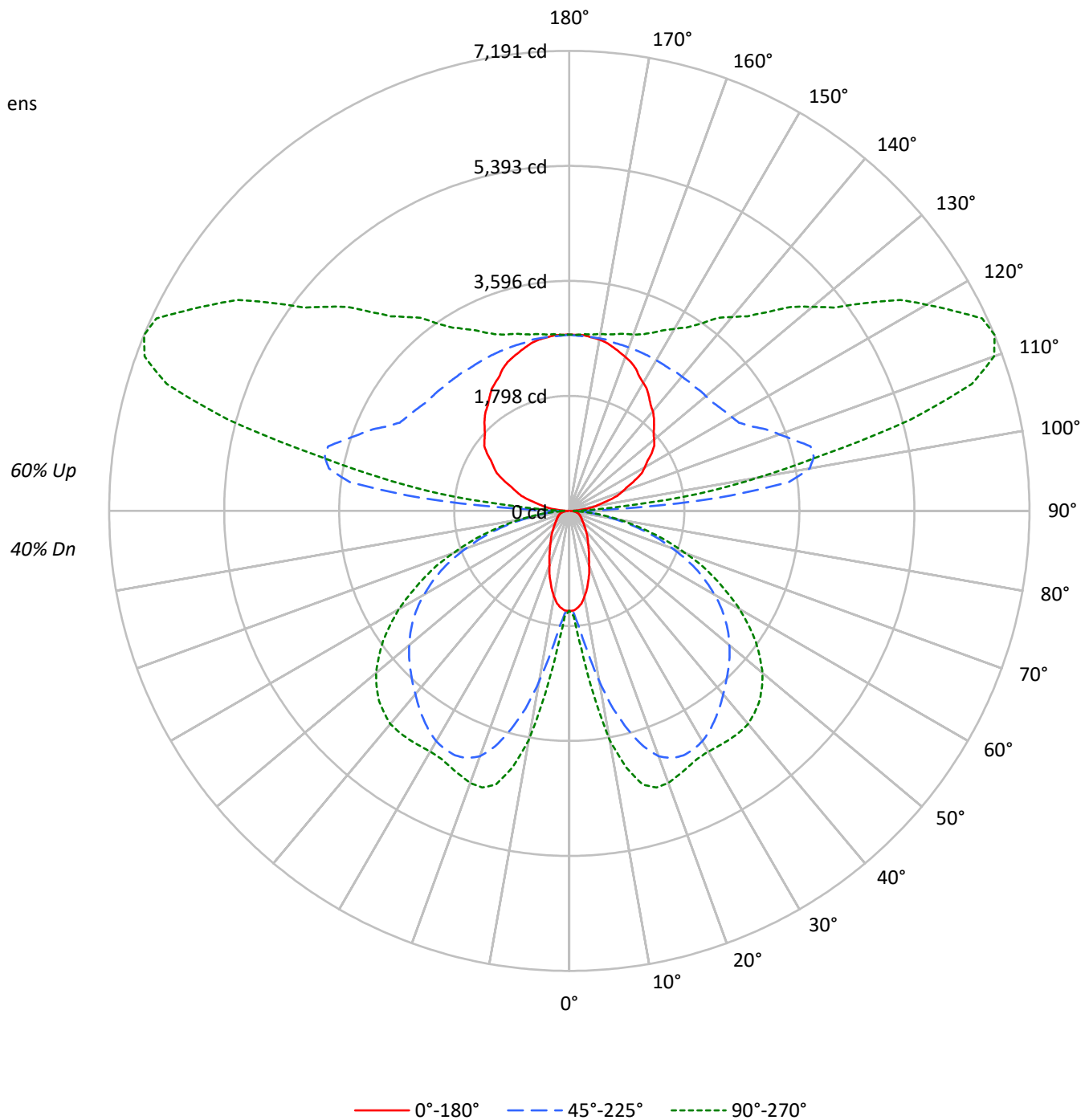
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 29934.4 lumens
Efficiency: N/A
Efficacy: 119.9 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 (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

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									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°	4825	4825	4825
5°	4715	5578	6485
10°	4279	8133	10752
15°	3638	10628	12983
20°	2963	12319	13231
25°	2473	12895	12963
30°	2086	12980	12938
35°	1845	12767	13272
40°	1609	12491	13618
45°	1458	12290	13672
50°	1338	12108	13445
55°	1283	11843	12849
60°	1315	11328	11908
65°	1370	10543	10615
70°	1463	9201	8967
75°	1627	7509	6998
80°	1791	5213	4716
85°	1627	2771	2413

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 13672 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	201.8	0.7
10°-20°	894.3	3.0
20°-30°	1564.3	5.2
30°-40°	2013.7	6.7
40°-50°	2249.2	7.5
50°-60°	2154.2	7.2
60°-70°	1707.2	5.7
70°-80°	1003.9	3.4
80°-90°	289.4	1.0
90°-100°	1342.7	4.5
100°-110°	3530.0	11.8
110°-120°	3660.2	12.2
120°-130°	2936.0	9.8
130°-140°	2303.7	7.7
140°-150°	1768.2	5.9
150°-160°	1273.4	4.3
160°-170°	779.1	2.6
170°-180°	263.2	0.9
0°-30°	2660.3	8.9
0°-40°	4674.0	15.6
0°-60°	9077.4	30.3
0°-90°	12078.0	40.3
90°-120°	8532.9	28.5
90°-150°	15540.7	51.9
90°-180°	17856.0	59.7
0°-180°	29934.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1560	1560	1560	1560	1560	
5°	1520	1630	1836	2077	2152	140
15°	1139	2102	3541	4294	4429	317
25°	727	2382	4218	4404	4409	335
35°	492	2277	3972	4198	4364	307
45°	336	1816	3511	4023	4203	260
55°	241	1154	2979	3461	3556	219
65°	191	612	2212	2488	2523	189
75°	140	376	1214	1334	1339	147
85°	50	115	301	331	336	53
90°	18	52	140	70	70	19
95°	177	695	2313	1192	812	197
105°	636	963	3902	5925	5528	674
115°	1130	1372	3126	6236	7117	1116
125°	1571	1762	2843	4805	5668	1395
135°	1873	2061	2754	3878	4398	1449
145°	2172	2311	2719	3309	3568	1361
155°	2455	2524	2719	2986	3072	1128
165°	2649	2684	2719	2827	2862	748
175°	2754	2754	2738	2773	2773	261
180°	2754	2754	2754	2754	2754	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1560.0	1560.0	1560.0	1560.0	1560.0	1560.0	1560.0	1560.0	1560.0	1560.0	1560.0
2.5°	1560.0	1560.0	1569.9	1575.0	1584.9	1590.0	1600.1	1610.0	1640.2	1645.2	1655.2
5°	1519.7	1539.8	1605.0	1630.1	1700.3	1795.7	1835.8	1901.0	2036.4	2076.6	2101.6
7.5°	1459.6	1504.7	1665.3	1705.4	1881.0	2131.7	2237.0	2377.5	2593.2	2698.5	2783.8
10°	1364.3	1459.6	1745.5	1840.7	2126.7	2507.8	2703.5	2899.1	3225.1	3370.6	3425.8
12.5°	1259.0	1414.4	1830.8	1961.2	2372.5	2929.2	3165.0	3380.6	3751.8	3947.5	3977.5
15°	1138.6	1349.2	1911.0	2101.6	2633.3	3280.4	3541.1	3807.0	4153.1	4293.6	4328.6
17.5°	1033.3	1299.1	1986.3	2186.8	2833.9	3596.3	3862.2	4082.8	4363.7	4459.0	4484.1
20°	902.8	1218.8	2036.4	2297.2	3044.6	3827.0	4082.8	4253.3	4444.0	4504.2	4514.2
22.5°	807.5	1133.5	2066.5	2337.3	3185.0	3967.5	4183.2	4318.5	4449.0	4469.0	4474.1
25°	727.3	1038.3	2061.5	2382.5	3305.4	4052.8	4218.3	4318.5	4393.8	4403.8	4403.8
27.5°	652.1	933.0	2041.4	2392.5	3395.7	4072.8	4203.2	4273.4	4308.6	4328.6	4328.6
30°	586.9	832.6	1991.2	2372.5	3435.8	4052.8	4158.1	4193.2	4228.3	4258.4	4273.4
32.5°	536.7	737.3	1916.0	2332.4	3440.8	4002.6	4077.9	4097.9	4148.0	4218.3	4243.4
35°	491.5	642.0	1830.8	2277.1	3410.8	3922.4	3972.5	3992.6	4092.9	4198.2	4233.3
37.5°	446.4	571.8	1720.4	2181.9	3365.6	3827.0	3862.2	3897.3	4052.8	4178.2	4218.3
40°	401.2	511.6	1590.0	2076.6	3295.4	3711.7	3741.8	3797.0	4002.6	4148.0	4188.1
42.5°	366.2	461.5	1449.6	1966.2	3205.1	3581.3	3626.5	3706.7	3942.4	4097.9	4143.1
45°	336.0	411.3	1299.1	1815.7	3089.7	3445.8	3511.1	3621.4	3872.2	4022.6	4062.8
47.5°	306.0	376.2	1143.6	1660.2	2964.3	3310.4	3395.7	3521.0	3776.9	3922.4	3957.4
50°	280.9	341.1	988.1	1494.7	2828.9	3165.0	3265.2	3395.7	3656.5	3791.9	3837.1
52.5°	260.8	311.0	842.7	1329.2	2673.4	3014.5	3129.9	3265.2	3511.1	3641.5	3671.5
55°	240.8	285.9	717.3	1153.6	2512.9	2853.9	2979.4	3109.8	3350.5	3460.9	3480.9
57.5°	230.7	265.9	612.0	988.1	2342.4	2673.4	2813.8	2934.3	3159.9	3245.2	3265.2
60°	215.7	250.8	531.6	847.7	2156.8	2502.9	2623.2	2743.7	2934.3	3004.4	3019.5
62.5°	200.7	240.8	471.5	712.2	1966.2	2302.2	2422.6	2532.9	2693.5	2743.7	2763.7
65°	190.6	230.7	426.3	612.0	1770.6	2091.6	2211.9	2307.3	2437.7	2487.8	2497.9
67.5°	180.6	220.7	391.2	526.7	1575.0	1881.0	1971.2	2061.5	2161.8	2211.9	2217.0
70°	165.5	210.6	361.1	466.4	1374.3	1640.2	1715.4	1810.7	1890.9	1916.0	1931.0
72.5°	155.5	195.6	341.1	421.3	1168.7	1409.5	1479.6	1534.9	1605.0	1630.1	1630.1
75°	140.4	175.6	321.0	376.2	958.0	1153.6	1213.9	1269.0	1324.1	1334.2	1319.2
77.5°	125.4	155.5	275.8	316.0	747.3	912.9	963.0	993.1	1038.3	1048.3	1053.3
80°	105.3	135.5	215.7	245.8	541.7	672.1	707.2	732.3	772.4	772.4	782.5
82.5°	80.2	105.3	155.5	175.6	366.2	461.5	491.5	506.5	531.6	531.6	531.6
85°	50.2	65.2	100.3	115.4	220.7	280.9	300.9	306.0	326.0	331.1	331.1
87.5°	25.1	35.1	65.2	70.2	115.4	145.4	145.4	155.5	155.5	150.5	145.4
90°	18.5	33.3	48.1	51.8	81.3	120.7	140.5	124.9	93.7	70.2	70.2
92.5°	73.9	199.6	325.3	356.8	501.6	694.7	791.2	693.4	497.9	351.2	337.3
95°	177.4	407.5	637.6	695.1	1234.3	1953.3	2312.7	2063.7	1565.9	1192.4	1150.1
97.5°	306.9	509.8	712.7	763.5	1662.6	2861.3	3460.7	3303.4	2988.7	2752.7	2672.1
100°	406.7	590.7	774.8	820.8	1818.5	3148.7	3813.8	3825.2	3848.3	3865.6	3769.6
102.5°	491.7	663.4	835.2	878.1	1889.9	3239.1	3913.7	4114.1	4515.1	4815.8	4733.6
105°	636.0	781.4	926.8	963.2	1943.0	3249.3	3902.5	4351.9	5250.8	5924.9	5880.8
107.5°	783.9	919.4	1055.0	1088.9	1952.8	3104.7	3680.7	4307.6	5561.4	6501.7	6512.4
110°	883.7	1006.1	1128.5	1159.1	1938.1	2976.5	3495.8	4196.7	5598.4	6649.6	6695.7



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	981.7	1098.4	1215.0	1244.2	1938.7	2864.6	3327.6	4044.9	5479.4	6555.4	6626.0
115°	1129.6	1237.2	1344.9	1371.7	1956.5	2736.3	3126.1	3817.1	5199.1	6235.6	6333.6
117.5°	1275.6	1373.3	1471.1	1495.5	1992.8	2655.8	2987.4	3611.0	4858.3	5793.7	5902.4
120°	1360.6	1452.7	1544.6	1567.7	2022.4	2628.8	2932.0	3501.8	4641.3	5496.0	5601.7
122.5°	1443.8	1536.6	1629.5	1652.7	2065.0	2614.6	2889.5	3402.6	4428.8	5198.5	5302.6
125°	1571.4	1656.0	1740.7	1761.8	2122.3	2603.0	2843.3	3279.2	4150.9	4804.6	4900.6
127.5°	1674.9	1760.3	1845.8	1867.1	2179.5	2596.2	2804.4	3178.7	3927.2	4488.6	4569.5
130°	1730.4	1822.4	1914.3	1937.4	2221.4	2600.2	2789.6	3122.8	3789.2	4288.9	4363.7
132.5°	1787.7	1879.7	1971.7	1994.7	2255.3	2602.9	2776.7	3075.0	3671.5	4118.9	4185.9
135°	1872.7	1956.4	2040.3	2061.3	2292.4	2600.5	2754.5	3004.3	3503.8	3878.5	3936.2
137.5°	1959.6	2042.6	2125.6	2146.3	2347.8	2616.4	2750.8	2961.9	3384.3	3701.0	3748.3
140°	2031.7	2108.1	2184.6	2203.6	2381.7	2619.1	2737.8	2920.2	3285.1	3558.7	3602.8
142.5°	2087.2	2157.8	2228.4	2246.1	2410.0	2628.6	2737.8	2898.1	3218.5	3458.9	3496.9
145°	2172.2	2233.9	2295.4	2310.8	2447.0	2628.6	2719.4	2850.4	3112.5	3309.1	3337.9
147.5°	2257.2	2317.2	2377.1	2392.1	2501.2	2646.7	2719.4	2822.5	3028.7	3183.4	3207.2
150°	2312.7	2367.0	2421.2	2434.7	2529.6	2656.1	2719.4	2806.5	2980.7	3111.3	3130.6
152.5°	2370.0	2411.1	2452.1	2462.4	2548.1	2662.3	2719.4	2793.8	2942.5	3054.0	3068.6
155°	2455.1	2485.5	2515.8	2523.5	2588.8	2675.8	2719.4	2778.6	2896.9	2985.6	2995.3
157.5°	2517.9	2547.5	2577.0	2584.4	2629.4	2689.3	2719.4	2765.4	2857.4	2926.5	2933.3
160°	2560.4	2583.4	2606.4	2612.2	2647.9	2695.6	2719.4	2758.8	2837.6	2896.8	2900.8
162.5°	2602.9	2620.2	2637.4	2641.7	2667.6	2702.1	2719.4	2752.7	2819.3	2869.2	2872.8
165°	2649.1	2664.7	2680.3	2684.3	2696.0	2711.6	2719.4	2743.2	2790.8	2826.6	2830.5
167.5°	2691.7	2699.1	2706.4	2708.3	2718.2	2731.3	2737.8	2753.5	2784.7	2808.1	2809.8
170°	2719.4	2726.8	2734.2	2736.1	2736.7	2737.5	2737.8	2753.5	2784.7	2808.1	2808.1
172.5°	2734.2	2735.8	2737.5	2737.8	2737.8	2737.8	2737.8	2750.2	2774.9	2793.4	2791.9
175°	2754.5	2754.5	2754.5	2754.5	2749.0	2741.6	2737.8	2745.7	2761.3	2773.0	2773.0
177.5°	2754.5	2754.5	2754.5	2754.5	2750.2	2744.5	2741.6	2747.7	2760.1	2769.3	2767.6
180°	2754.5	2754.5	2754.5	2754.5	2754.5	2754.5	2754.5	2754.5	2754.5	2754.5	2754.5



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1560.0	1560.0
2.5°	1665.3	1655.2
5°	2141.8	2151.8
7.5°	2884.1	2879.0
10°	3586.2	3631.4
12.5°	4097.9	4107.9
15°	4408.9	4428.9
17.5°	4529.3	4534.2
20°	4534.2	4524.2
22.5°	4479.1	4469.0
25°	4413.9	4408.9
27.5°	4353.7	4358.8
30°	4328.6	4343.6
32.5°	4328.6	4353.7
35°	4338.6	4363.7
37.5°	4333.7	4363.7
40°	4313.6	4348.7
42.5°	4258.4	4283.5
45°	4173.1	4203.2
47.5°	4062.8	4082.8
50°	3922.4	3942.4
52.5°	3746.8	3751.8
55°	3536.2	3556.2
57.5°	3310.4	3315.4
60°	3059.6	3074.7
62.5°	2793.8	2793.8
65°	2512.9	2523.0
67.5°	2222.0	2247.1
70°	1926.1	1931.0
72.5°	1635.1	1635.1
75°	1334.2	1339.2
77.5°	1048.3	1048.3
80°	777.5	782.5
82.5°	536.7	546.8
85°	336.0	336.0
87.5°	155.5	140.4
90°	70.2	70.2
92.5°	281.4	225.6
95°	980.8	811.5
97.5°	2350.1	2028.0
100°	3386.0	3002.2
102.5°	4405.0	4076.3
105°	5704.2	5527.6
107.5°	6555.2	6597.9
110°	6879.7	7063.8



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	6908.7	7191.4
115°	6725.4	7117.4
117.5°	6337.0	6771.7
120°	6023.9	6446.3
122.5°	5719.2	6135.8
125°	5284.3	5668.1
127.5°	4893.3	5216.9
130°	4662.8	4961.8
132.5°	4453.6	4721.5
135°	4167.1	4398.0
137.5°	3937.3	4126.2
140°	3779.5	3956.1
142.5°	3648.9	3800.8
145°	3453.0	3568.0
147.5°	3302.6	3397.8
150°	3207.8	3285.1
152.5°	3126.9	3185.2
155°	3033.9	3072.5
157.5°	2960.3	2987.4
160°	2916.4	2932.0
162.5°	2887.6	2902.4
165°	2846.1	2861.7
167.5°	2816.3	2822.9
170°	2808.1	2808.1
172.5°	2786.2	2780.4
175°	2773.0	2773.0
177.5°	2761.1	2754.5
180°	2754.5	2754.5



TEST NUMBER: P938517
 CATALOG NUMBER: SQ4-FB-150U-125D-840-1D-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	5.53	6.34	6.56	7.38	8.78	18.72	19.53	19.75	20.57	21.97
	3H	6.23	6.96	7.27	8.00	9.42	20.56	21.29	21.60	22.34	23.75
	4H	6.52	7.21	7.57	8.27	9.69	21.21	21.90	22.26	22.95	24.37
	6H	6.77	7.41	7.83	8.46	9.90	21.64	22.27	22.70	23.33	24.77
	8H	6.84	7.44	7.90	8.52	9.95	21.76	22.37	22.82	23.44	24.87
	12H	6.85	7.43	7.92	8.50	9.95	21.83	22.40	22.90	23.47	24.93
4H	2H	12.74	13.43	13.80	14.49	15.91	18.99	19.68	20.04	20.73	22.15
	3H	14.31	14.88	15.37	15.96	17.40	21.03	21.61	22.10	22.69	24.13
	4H	14.40	14.93	15.47	16.00	17.46	21.80	22.33	22.87	23.40	24.86
	6H	14.41	14.86	15.49	15.96	17.41	22.34	22.80	23.42	23.89	25.34
	8H	14.38	14.81	15.46	15.89	17.36	22.50	22.93	23.59	24.02	25.49
	12H	14.33	14.72	15.43	15.82	17.30	22.60	22.98	23.70	24.08	25.56
8H	4H	15.84	16.27	16.92	17.35	18.83	21.86	22.28	22.94	23.37	24.84
	6H	16.08	16.43	17.19	17.56	19.03	22.49	22.84	23.59	23.97	25.44
	8H	16.10	16.41	17.21	17.52	19.01	22.71	23.02	23.82	24.13	25.62
	12H	16.06	16.34	17.18	17.44	18.97	22.85	23.13	23.97	24.23	25.76
12H	4H	15.98	16.37	17.08	17.47	18.95	21.81	22.19	22.90	23.29	24.77
	6H	16.34	16.65	17.45	17.76	19.25	22.47	22.78	23.58	23.89	25.38
	8H	16.41	16.68	17.52	17.79	19.31	22.70	22.97	23.81	24.08	25.60