

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: P853809

Luminaire Tested: SQ2-FA-125U-125D-930-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P853809  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G2-2308-131-11)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-FA-125U-125D-930-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 1250 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

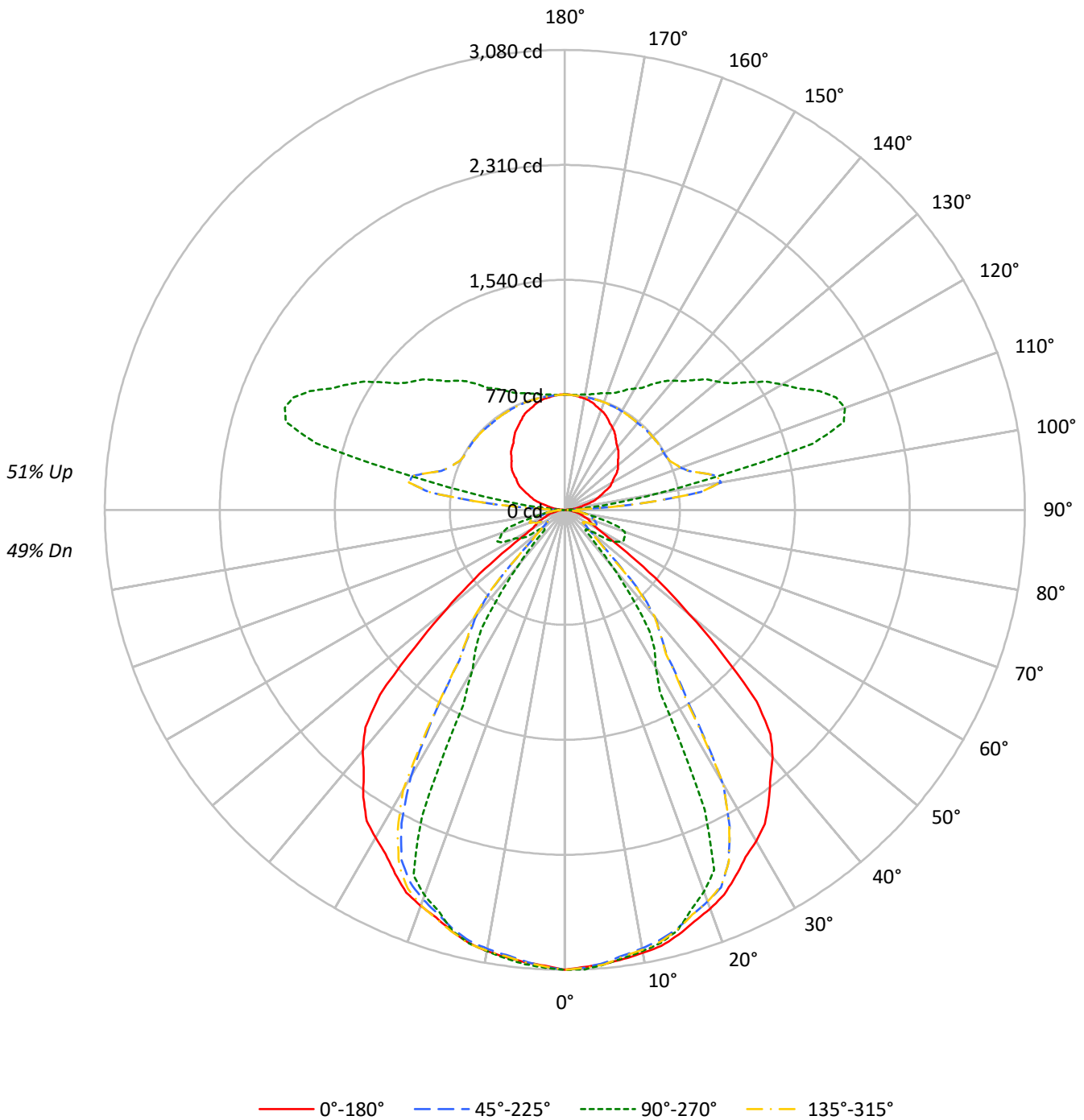
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9262.6 lumens  
Efficiency: N/A  
Efficacy: 99.5 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 0.95 / 0.95  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: General Diffuse  
  
Input Watts (W): 93.1  
Input Voltage (V): 120  
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				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	0
RCR																		
0	107	107	107	107	98	98	98	98	83	83	83	68	68	68	55	55	55	49
1	98	95	91	88	91	87	84	82	74	72	70	61	60	59	50	49	48	43
2	91	84	78	74	83	78	73	69	66	63	60	55	53	51	46	44	43	38
3	84	75	69	63	77	70	64	59	60	55	52	50	47	45	42	40	38	34
4	77	68	60	55	71	63	57	52	54	49	46	46	43	40	38	36	34	31
5	72	61	54	48	66	57	51	46	49	44	41	42	38	36	35	33	31	28
6	67	56	48	43	62	52	45	41	45	40	36	39	35	32	33	30	28	25
7	62	51	43	38	57	48	41	36	42	36	33	36	32	29	31	28	26	23
8	58	47	39	34	54	44	37	33	38	33	30	33	29	27	28	26	24	21
9	54	43	36	31	50	40	34	30	36	31	27	31	27	24	27	24	22	20
10	51	40	33	29	47	37	31	27	33	28	25	29	25	23	25	22	20	18

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

	0°	90°	180°	270°
0°	49729	49729	49729	49729
5°	49469	49543	49279	49506
10°	49393	49201	49201	49201
15°	49232	48727	48844	48727
20°	48850	46775	48491	47215
25°	48209	39476	47878	40305
30°	47765	22648	47247	22952
35°	46929	19458	46333	19184
40°	45627	10233	44356	10134
45°	41475	4402	39991	4402
50°	27364	5310	25962	4958
55°	15299	9807	14517	8892
60°	8251	13801	8102	12377
65°	7278	16772	7633	19079
70°	6798	20068	6467	21163
75°	6376	17243	6519	17823
80°	5402	12311	5402	12961
85°	4742	6891	4298	8170

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 41475 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	289.9	3.1
10°-20°	822.3	8.9
20°-30°	1121.2	12.1
30°-40°	942.2	10.2
40°-50°	535.1	5.8
50°-60°	283.9	3.1
60°-70°	261.4	2.8
70°-80°	191.9	2.1
80°-90°	51.0	0.6
90°-100°	295.3	3.2
100°-110°	961.5	10.4
110°-120°	951.1	10.3
120°-130°	777.3	8.4
130°-140°	635.3	6.9
140°-150°	494.8	5.3
150°-160°	356.7	3.9
160°-170°	218.0	2.4
170°-180°	73.6	0.8
0°-30°	2233.3	24.1
0°-40°	3175.5	34.3
0°-60°	3994.6	43.1
0°-90°	4499.0	48.6
90°-120°	2208.0	23.8
90°-150°	4115.4	44.4
90°-180°	4764.0	51.4
0°-180°	9262.6	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	3080	3080	3080	3080	3080	
5°	3052	3057	3040	3054	3052	290
15°	2945	2915	2922	2915	2945	830
25°	2706	2216	2688	2262	2706	1248
35°	2381	987	2351	973	2381	1486
45°	1816	193	1751	193	1816	1328
55°	544	348	516	316	544	524
65°	190	439	200	499	190	191
75°	102	276	104	286	102	105
85°	26	37	23	44	26	28
90°	0	6	0	6	0	3
95°	40	119	40	119	40	46
105°	163	1723	163	1723	163	174
115°	302	1881	302	1881	302	299
125°	420	1488	420	1488	420	374
135°	507	1229	507	1229	507	392
145°	593	1028	593	1028	593	371
155°	676	872	676	872	676	311
165°	738	804	738	804	738	208
175°	769	773	769	773	769	73
180°	772	772	772	772	772	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	3080.0	3080.0	3080.0	3080.0	3080.0	3080.0	3080.0	3080.0	3080.0	3080.0	3080.0
2.5°	3063.3	3108.7	3068.9	3063.7	3080.0	3076.4	3070.7	3092.2	3055.9	3092.2	3063.3
5°	3052.2	3104.4	3045.2	3029.5	3056.8	3038.6	3054.5	3086.0	3040.5	3081.4	3035.9
7.5°	3033.1	3079.4	3008.5	2998.4	3025.2	3009.3	3015.9	3059.6	3021.5	3048.3	3007.1
10°	3012.7	3053.5	2982.5	2976.1	3001.0	2985.2	2991.8	3037.4	3001.0	3026.0	2984.8
12.5°	2990.4	3022.2	2950.9	2948.1	2969.5	2959.0	2962.0	3000.4	2971.3	2996.3	2956.9
15°	2945.3	2974.8	2903.5	2892.4	2915.1	2906.0	2910.5	2944.8	2922.1	2938.0	2903.5
17.5°	2889.6	2913.2	2842.2	2808.7	2809.7	2821.0	2842.2	2883.5	2863.1	2884.0	2835.2
20°	2843.1	2870.4	2792.0	2726.9	2722.3	2733.7	2792.0	2833.5	2822.2	2844.9	2775.7
22.5°	2789.2	2807.4	2736.3	2626.3	2610.8	2622.2	2728.8	2778.0	2773.9	2789.3	2703.3
25°	2706.1	2724.2	2594.6	2436.2	2215.9	2422.6	2599.2	2687.5	2687.5	2701.1	2587.6
27.5°	2621.5	2622.0	2387.4	1564.6	1380.2	1508.3	2384.1	2575.5	2597.3	2590.5	2367.4
30°	2562.0	2546.1	2116.1	1264.8	1214.8	1246.6	2118.4	2497.8	2534.2	2509.2	2062.6
32.5°	2493.3	2448.3	1562.3	1162.8	1121.9	1150.1	1510.7	2405.5	2469.1	2415.1	1622.2
35°	2380.9	2262.8	1191.6	1028.1	987.2	1023.5	1182.3	2223.5	2350.7	2205.3	1231.1
37.5°	2259.6	1798.6	1049.0	818.9	730.8	801.2	1043.9	1779.3	2210.4	1738.0	1048.0
40°	2164.8	1413.1	943.1	599.0	485.5	565.0	936.1	1348.1	2104.5	1450.4	919.8
42.5°	2038.5	1241.3	757.2	380.5	297.8	348.2	726.1	1212.6	1974.4	1256.7	732.1
45°	1816.4	1066.9	448.3	208.7	192.8	201.9	413.5	1047.3	1751.4	1024.6	457.6
47.5°	1438.7	813.7	288.0	177.4	194.7	177.4	279.2	787.9	1358.8	786.5	287.6
50°	1089.4	635.2	223.0	179.6	211.4	179.6	216.0	613.5	1033.6	670.3	220.7
52.5°	806.9	530.8	182.1	196.9	254.1	200.5	177.0	516.7	766.1	540.8	172.4
55°	543.5	416.3	146.3	259.8	348.4	266.7	146.3	404.4	515.7	399.8	141.7
57.5°	344.7	309.7	148.2	334.1	397.7	340.4	150.5	298.5	330.8	299.9	130.1
60°	255.5	244.2	164.9	354.7	427.4	359.3	167.2	235.0	250.9	232.7	139.4
62.5°	210.9	192.3	198.4	384.2	444.1	374.2	202.5	183.4	219.3	175.7	154.2
65°	190.5	124.6	234.6	389.0	439.0	389.0	236.9	118.0	199.8	127.1	209.1
67.5°	171.9	92.4	226.7	386.4	441.8	387.3	221.1	88.2	164.9	85.9	213.7
70°	144.0	82.7	213.7	393.3	425.1	379.6	213.7	80.3	137.0	78.0	250.9
72.5°	119.9	78.5	198.8	363.1	376.8	349.5	200.7	78.1	120.3	70.4	236.0
75°	102.2	77.2	190.5	290.0	276.4	276.4	185.8	75.0	104.5	70.5	183.5
77.5°	76.7	68.5	157.9	189.3	178.9	178.9	155.2	66.1	72.9	62.0	149.1
80°	58.1	62.6	130.1	139.2	132.4	132.4	125.4	60.3	58.1	58.1	123.1
82.5°	45.1	53.2	100.3	102.1	97.1	95.3	97.6	52.8	45.1	48.7	95.2
85°	25.6	36.9	53.4	44.0	37.2	34.9	51.1	34.6	23.2	34.6	51.1
87.5°	9.3	17.1	8.8	8.6	8.6	8.6	8.8	17.1	9.3	15.3	10.6
90°	0.0	2.8	6.6	5.7	5.7	5.7	6.6	2.8	0.0	2.8	6.6
92.5°	13.7	49.1	157.1	51.8	39.9	51.8	157.1	49.1	13.7	49.1	157.1
95°	39.9	121.6	541.3	193.0	118.7	193.0	541.3	121.6	39.9	121.6	541.3
97.5°	75.0	158.2	918.7	559.5	341.5	559.5	918.7	158.2	75.0	158.2	918.7
100°	97.8	179.5	1060.8	945.9	613.5	945.9	1060.8	179.5	97.8	179.5	1060.8
102.5°	123.6	202.4	1043.3	1399.4	1064.0	1399.4	1043.3	202.4	123.6	202.4	1043.3
105°	163.3	235.8	952.5	1819.3	1722.7	1819.3	952.5	235.8	163.3	235.8	952.5
107.5°	206.3	274.4	866.3	1855.7	1958.1	1855.7	866.3	274.4	206.3	274.4	866.3
110°	237.4	299.6	825.3	1810.5	1995.3	1810.5	825.3	299.6	237.4	299.6	825.3



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
112.5°	263.3	324.7	799.4	1728.9	1967.2	1728.9	799.4	324.7	263.3	324.7	799.4
115°	302.0	360.5	775.9	1599.0	1881.3	1599.0	775.9	360.5	302.0	360.5	775.9
117.5°	341.9	394.6	766.8	1480.1	1761.1	1480.1	766.8	394.6	341.9	394.6	766.8
120°	364.7	416.7	764.5	1407.0	1679.1	1407.0	764.5	416.7	364.7	416.7	764.5
122.5°	386.7	438.0	765.3	1343.5	1597.0	1343.5	765.3	438.0	386.7	438.0	765.3
125°	419.8	468.0	765.4	1262.5	1488.2	1262.5	765.4	468.0	419.8	468.0	765.4
127.5°	448.1	497.5	765.3	1201.8	1390.0	1201.8	765.3	497.5	448.1	497.5	765.3
130°	466.3	516.4	764.5	1167.2	1335.3	1167.2	764.5	516.4	466.3	516.4	764.5
132.5°	482.3	534.6	763.7	1135.0	1292.7	1135.0	763.7	534.6	482.3	534.6	763.7
135°	507.1	560.1	761.7	1089.6	1228.9	1089.6	761.7	560.1	507.1	560.1	761.7
137.5°	531.4	584.7	759.6	1043.5	1167.2	1043.5	759.6	584.7	531.4	584.7	759.6
140°	548.9	600.0	758.8	1012.2	1129.2	1012.2	758.8	600.0	548.9	600.0	758.8
142.5°	565.6	614.5	758.8	982.3	1086.6	982.3	758.8	614.5	565.6	614.5	758.8
145°	592.6	636.2	759.8	938.4	1027.6	938.4	759.8	636.2	592.6	636.2	759.8
147.5°	618.8	656.7	761.1	901.1	970.0	901.1	761.1	656.7	618.8	656.7	761.1
150°	636.3	669.7	762.6	878.8	937.3	878.8	762.6	669.7	636.3	669.7	762.6
152.5°	653.8	681.3	763.4	861.9	908.5	861.9	763.4	681.3	653.8	681.3	763.4
155°	676.2	698.5	764.5	840.2	871.8	840.2	764.5	698.5	676.2	698.5	764.5
157.5°	697.5	713.4	765.6	824.3	846.4	824.3	765.6	713.4	697.5	713.4	765.6
160°	710.4	723.4	766.4	814.3	831.9	814.3	766.4	723.4	710.4	723.4	766.4
162.5°	721.8	731.8	766.4	805.8	819.0	805.8	766.4	731.8	721.8	731.8	766.4
165°	737.9	744.4	766.4	795.1	804.4	795.1	766.4	744.4	737.9	744.4	766.4
167.5°	749.3	753.4	766.6	787.0	791.9	787.0	766.6	753.4	749.3	753.4	766.6
170°	756.9	758.8	767.3	781.6	783.5	781.6	767.3	758.8	756.9	758.8	767.3
172.5°	762.2	763.3	768.9	778.5	778.2	778.5	768.9	763.3	762.2	763.3	768.9
175°	769.2	769.2	769.2	774.9	773.0	774.9	769.2	769.2	769.2	769.2	769.2
177.5°	772.1	771.4	770.6	774.3	771.3	774.3	770.6	771.4	772.1	771.4	770.6
180°	772.1	772.1	772.1	772.1	772.1	772.1	772.1	772.1	772.1	772.1	772.1



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**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	3080.0	3080.0	3080.0	3080.0	3080.0	3080.0
2.5°	3056.2	3068.9	3068.9	3061.4	3097.8	3063.3
5°	3024.9	3054.5	3040.8	3040.5	3086.2	3052.2
7.5°	3003.1	3030.8	3018.1	3015.5	3060.4	3033.1
10°	2980.6	3001.0	2992.0	2998.7	3039.9	3012.7
12.5°	2949.1	2973.2	2964.1	2974.6	3012.2	2990.4
15°	2894.7	2915.1	2919.6	2924.4	2968.0	2945.3
17.5°	2804.8	2814.8	2837.5	2869.6	2915.0	2889.6
20°	2734.2	2747.9	2761.5	2817.5	2870.4	2843.1
22.5°	2653.9	2649.4	2681.2	2746.9	2812.8	2789.2
25°	2437.3	2262.4	2455.5	2624.8	2712.9	2706.1
27.5°	1697.0	1472.7	1671.2	2422.7	2607.9	2621.5
30°	1335.6	1231.1	1333.3	2162.5	2530.2	2562.0
32.5°	1185.8	1114.0	1176.2	1645.9	2432.4	2493.3
35°	1023.2	973.3	1023.2	1231.1	2240.1	2380.9
37.5°	819.0	716.8	817.2	1063.8	1810.8	2259.6
40°	610.3	480.8	592.1	952.3	1447.2	2164.8
42.5°	406.6	309.9	384.8	749.8	1251.7	2038.5
45°	220.0	192.8	211.0	452.9	1021.5	1816.4
47.5°	172.6	182.6	172.6	285.7	781.5	1438.7
50°	165.6	197.4	165.6	220.7	646.5	1089.4
52.5°	180.5	214.2	178.7	174.2	527.6	806.9
55°	204.6	315.9	206.9	141.7	386.8	543.5
57.5°	291.3	355.4	294.5	134.3	297.9	344.7
60°	299.2	383.3	297.0	141.7	230.5	255.5
62.5°	353.9	474.3	353.5	162.1	171.4	210.9
65°	454.0	499.4	458.5	206.7	122.3	190.5
67.5°	430.9	463.2	426.4	221.6	84.2	171.9
70°	423.3	448.3	418.8	253.2	78.1	144.0
72.5°	394.9	398.1	386.8	234.6	70.3	119.9
75°	306.1	285.7	294.8	202.1	70.4	102.2
77.5°	190.3	182.1	183.5	154.2	62.1	76.7
80°	143.9	139.4	137.1	130.1	58.1	58.1
82.5°	106.7	102.2	99.9	100.3	48.7	45.1
85°	48.7	44.1	41.9	58.1	34.6	25.6
87.5°	10.4	10.4	8.6	10.6	13.5	9.3
90°	5.7	5.7	5.7	6.6	2.8	0.0
92.5°	51.8	39.9	51.8	157.1	49.1	13.7
95°	193.0	118.7	193.0	541.3	121.6	39.9
97.5°	559.5	341.5	559.5	918.7	158.2	75.0
100°	945.9	613.5	945.9	1060.8	179.5	97.8
102.5°	1399.4	1064.0	1399.4	1043.3	202.4	123.6
105°	1819.3	1722.7	1819.3	952.5	235.8	163.3
107.5°	1855.7	1958.1	1855.7	866.3	274.4	206.3
110°	1810.5	1995.3	1810.5	825.3	299.6	237.4





TEST NUMBER: P853809

CATALOG NUMBER: SQ2-FA-125U-125D-930-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	1728.9	1967.2	1728.9	799.4	324.7	263.3
115°	1599.0	1881.3	1599.0	775.9	360.5	302.0
117.5°	1480.1	1761.1	1480.1	766.8	394.6	341.9
120°	1407.0	1679.1	1407.0	764.5	416.7	364.7
122.5°	1343.5	1597.0	1343.5	765.3	438.0	386.7
125°	1262.5	1488.2	1262.5	765.4	468.0	419.8
127.5°	1201.8	1390.0	1201.8	765.3	497.5	448.1
130°	1167.2	1335.3	1167.2	764.5	516.4	466.3
132.5°	1135.0	1292.7	1135.0	763.7	534.6	482.3
135°	1089.6	1228.9	1089.6	761.7	560.1	507.1
137.5°	1043.5	1167.2	1043.5	759.6	584.7	531.4
140°	1012.2	1129.2	1012.2	758.8	600.0	548.9
142.5°	982.3	1086.6	982.3	758.8	614.5	565.6
145°	938.4	1027.6	938.4	759.8	636.2	592.6
147.5°	901.1	970.0	901.1	761.1	656.7	618.8
150°	878.8	937.3	878.8	762.6	669.7	636.3
152.5°	861.9	908.5	861.9	763.4	681.3	653.8
155°	840.2	871.8	840.2	764.5	698.5	676.2
157.5°	824.3	846.4	824.3	765.6	713.4	697.5
160°	814.3	831.9	814.3	766.4	723.4	710.4
162.5°	805.8	819.0	805.8	766.4	731.8	721.8
165°	795.1	804.4	795.1	766.4	744.4	737.9
167.5°	787.0	791.9	787.0	766.6	753.4	749.3
170°	781.6	783.5	781.6	767.3	758.8	756.9
172.5°	778.5	778.2	778.5	768.9	763.3	762.2
175°	774.9	773.0	774.9	769.2	769.2	769.2
177.5°	774.3	771.3	774.3	770.6	771.4	772.1
180°	772.1	772.1	772.1	772.1	772.1	772.1

TEST NUMBER: P853809

CATALOG NUMBER: SQ2-FA-125U-125D-930-UNV-STD-W-4

**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	13.35	14.10	14.34	15.09	16.39	12.21	12.96	13.20	13.95	15.25
	3H	14.05	14.72	15.05	15.72	17.04	18.36	19.03	19.36	20.02	21.35
	4H	14.45	15.09	15.47	16.09	17.42	19.63	20.26	20.64	21.26	22.59
	6H	14.81	15.39	15.83	16.40	17.74	20.23	20.82	21.25	21.82	23.16
	8H	14.92	15.48	15.95	16.50	17.83	20.35	20.91	21.38	21.93	23.27
	12H	14.99	15.52	16.02	16.53	17.89	20.39	20.92	21.42	21.93	23.29
4H	2H	13.74	14.37	14.76	15.37	16.70	12.73	13.37	13.75	14.37	15.70
	3H	14.73	15.26	15.76	16.29	17.63	19.05	19.58	20.08	20.61	21.95
	4H	15.29	15.78	16.32	16.80	18.16	20.50	20.99	21.53	22.01	23.37
	6H	15.76	16.18	16.81	17.22	18.59	21.24	21.65	22.28	22.70	24.06
	8H	15.93	16.32	16.98	17.36	18.73	21.40	21.79	22.44	22.83	24.20
	12H	16.05	16.39	17.10	17.45	18.83	21.46	21.81	22.52	22.86	24.24
8H	4H	16.39	16.78	17.43	17.81	19.19	20.62	21.01	21.66	22.05	23.42
	6H	16.99	17.31	18.06	18.39	19.76	21.50	21.82	22.56	22.90	24.27
	8H	17.23	17.51	18.30	18.57	19.97	21.75	22.03	22.82	23.09	24.49
	12H	17.40	17.64	18.47	18.70	20.14	21.87	22.11	22.94	23.17	24.61
12H	4H	16.53	16.88	17.59	17.93	19.31	20.58	20.93	21.64	21.98	23.36
	6H	17.27	17.55	18.34	18.61	20.01	21.51	21.79	22.58	22.85	24.24
	8H	17.56	17.81	18.64	18.87	20.30	21.79	22.03	22.86	23.09	24.52