

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: P854982

Luminaire Tested: SQ2-FA-075U-100D-830-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854982
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G2-2308-131-11)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-FA-075U-100D-830-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 750 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

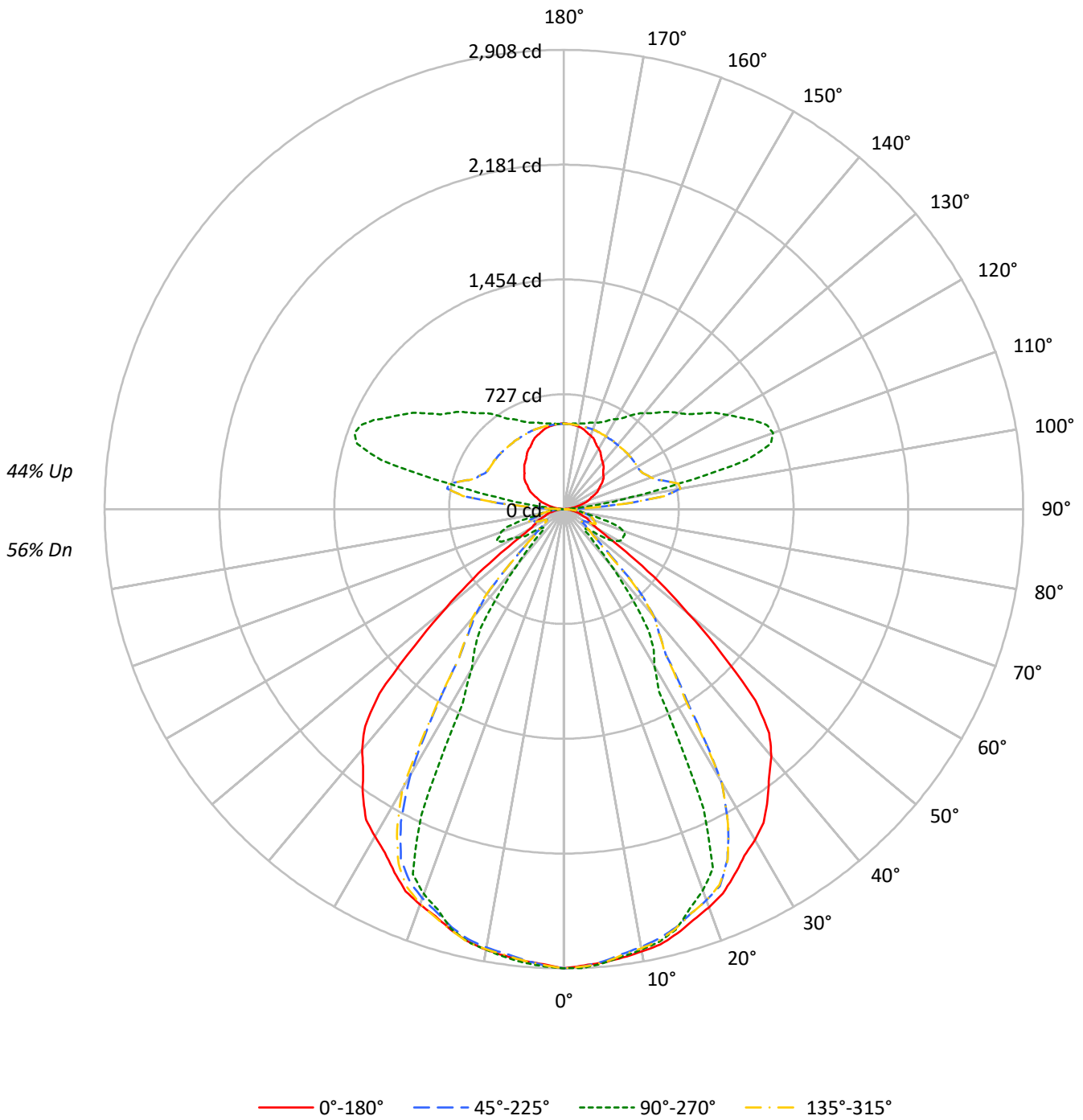
Lumens per Lamp: N/A
Luminaire Lumens: 7597.4 lumens
Efficiency: N/A
Efficacy: 124.8 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 0.95 / 0.95
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 60.9
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	50	30	10	0	
RCR																						
0	109	109	109	109	101	101	101	101	87	87	87	74	74	74	62	62	62	56				56
1	100	96	93	90	93	90	87	84	78	76	74	67	65	64	56	55	54				49	
2	92	86	80	76	86	80	75	71	70	66	63	60	58	55	51	49	48				44	
3	85	77	70	65	79	72	66	62	63	59	55	55	52	49	47	45	43				39	
4	79	69	62	57	74	65	59	54	57	52	49	50	46	43	43	41	38				35	
5	73	63	55	50	68	59	53	48	52	47	43	46	42	39	40	37	35				32	
6	68	57	50	45	64	54	47	43	48	43	39	42	38	35	37	34	32				29	
7	64	52	45	40	60	50	43	38	44	39	35	39	35	32	34	31	29				27	
8	60	48	41	36	56	46	39	35	41	36	32	36	32	29	32	29	27				25	
9	56	45	38	33	52	42	36	32	38	33	29	34	30	27	30	27	25				23	
10	53	41	35	30	49	39	33	29	35	30	27	32	28	25	28	25	23				21	

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	46950	46950	46950	46950
5°	46704	46775	46525	46738
10°	46630	46452	46452	46452
15°	46481	46004	46114	46004
20°	46118	44161	45782	44575
25°	45514	37269	45202	38051
30°	45095	21382	44607	21669
35°	44305	18370	43741	18112
40°	43079	9662	41876	9569
45°	39155	4156	37755	4156
50°	25834	5014	24513	4682
55°	14446	9258	13706	8397
60°	7792	13030	7650	11683
65°	6869	15836	7205	18013
70°	6420	18944	6104	19978
75°	6014	16282	6157	16831
80°	5095	11623	5095	12236
85°	4465	6484	4057	7725

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 39155 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	273.6	3.6
10°-20°	776.3	10.2
20°-30°	1058.5	13.9
30°-40°	889.5	11.7
40°-50°	505.2	6.6
50°-60°	268.1	3.5
60°-70°	246.8	3.2
70°-80°	181.2	2.4
80°-90°	47.9	0.6
90°-100°	204.6	2.7
100°-110°	678.4	8.9
110°-120°	673.3	8.9
120°-130°	548.4	7.2
130°-140°	445.7	5.9
140°-150°	346.1	4.6
150°-160°	249.4	3.3
160°-170°	152.7	2.0
170°-180°	51.6	0.7
0°-30°	2108.5	27.8
0°-40°	2998.0	39.5
0°-60°	3771.3	49.6
0°-90°	4247.2	55.9
90°-120°	1556.3	20.5
90°-150°	2896.5	38.1
90°-180°	3350.0	44.1
0°-180°	7597.4	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2908	2908	2908	2908	2908	
5°	2882	2886	2871	2884	2882	274
15°	2781	2752	2759	2752	2781	784
25°	2555	2092	2537	2136	2555	1178
35°	2248	932	2219	919	2248	1403
45°	1715	182	1654	182	1715	1254
55°	513	329	487	298	513	494
65°	180	414	189	472	180	181
75°	96	261	99	270	96	99
85°	24	35	22	42	24	27
90°	0	4	0	4	0	2
95°	29	88	29	88	29	33
105°	119	1198	119	1198	119	125
115°	212	1331	212	1331	212	209
125°	296	1054	296	1054	296	263
135°	354	866	354	866	354	274
145°	411	723	411	723	411	258
155°	469	612	469	612	469	216
165°	515	564	515	564	515	145
175°	539	542	539	542	539	51
180°	541	541	541	541	541	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	2907.9	2907.9	2907.9	2907.9	2907.9	2907.9	2907.9	2907.9	2907.9	2907.9	2907.9
2.5°	2892.1	2934.9	2897.4	2892.4	2907.9	2904.4	2899.1	2919.3	2885.1	2919.3	2892.1
5°	2881.6	2930.9	2875.0	2860.2	2886.0	2868.8	2883.7	2913.4	2870.6	2909.1	2866.2
7.5°	2863.6	2907.3	2840.3	2830.8	2856.1	2841.1	2847.3	2888.6	2852.6	2877.9	2839.0
10°	2844.2	2882.8	2815.8	2809.8	2833.3	2818.2	2824.6	2867.6	2833.3	2856.9	2817.9
12.5°	2823.2	2853.2	2785.9	2783.3	2803.4	2793.6	2796.4	2832.7	2805.2	2828.9	2791.7
15°	2780.7	2808.5	2741.2	2730.7	2752.2	2743.6	2747.8	2780.1	2758.8	2773.7	2741.2
17.5°	2728.0	2750.3	2683.2	2651.7	2652.6	2663.3	2683.2	2722.4	2703.0	2722.8	2676.7
20°	2684.1	2709.9	2636.0	2574.5	2570.2	2580.9	2636.0	2675.2	2664.5	2685.8	2620.6
22.5°	2633.3	2650.5	2583.3	2479.5	2464.9	2475.7	2576.3	2622.6	2618.8	2633.4	2552.2
25°	2554.8	2572.0	2449.5	2300.1	2092.0	2287.2	2453.9	2537.3	2537.3	2550.2	2443.0
27.5°	2475.0	2475.4	2253.9	1477.2	1303.1	1423.9	2250.9	2431.6	2452.1	2445.7	2235.1
30°	2418.8	2403.9	1997.7	1194.1	1146.9	1176.9	2000.0	2358.2	2392.6	2368.9	1947.3
32.5°	2353.9	2311.5	1475.0	1097.7	1059.2	1085.8	1426.3	2271.1	2331.2	2280.1	1531.6
35°	2247.8	2136.2	1125.0	970.7	932.0	966.4	1116.2	2099.2	2219.2	2082.1	1162.3
37.5°	2133.3	1698.0	990.3	773.1	689.9	756.4	985.5	1679.8	2086.8	1640.8	989.4
40°	2043.9	1334.0	890.4	565.5	458.4	533.3	883.7	1272.8	1986.8	1369.3	868.4
42.5°	1924.6	1171.9	714.9	359.2	281.2	328.8	685.5	1144.9	1864.0	1186.4	691.3
45°	1714.8	1007.3	423.2	197.1	182.0	190.6	390.3	988.7	1653.5	967.4	432.0
47.5°	1358.4	768.3	271.9	167.4	183.7	167.4	263.6	743.9	1282.8	742.5	271.5
50°	1028.5	599.7	210.5	169.5	199.6	169.5	204.0	579.2	975.9	632.8	208.4
52.5°	761.8	501.1	172.0	185.9	239.9	189.3	167.1	487.8	723.3	510.5	162.7
55°	513.2	393.1	138.2	245.3	328.9	251.8	138.2	381.8	486.9	377.5	133.8
57.5°	325.4	292.4	139.9	315.4	375.5	321.4	142.1	281.9	312.3	283.1	122.8
60°	241.3	230.5	155.7	334.9	403.5	339.2	157.8	221.8	236.9	219.7	131.6
62.5°	199.1	181.6	187.2	362.7	419.2	353.2	191.2	173.1	207.0	165.9	145.6
65°	179.8	117.6	221.5	367.3	414.5	367.3	223.6	111.4	188.6	120.0	197.4
67.5°	162.2	87.3	214.0	364.7	417.1	365.6	208.7	83.2	155.7	81.1	201.7
70°	136.0	78.0	201.7	371.3	401.3	358.4	201.7	75.8	129.3	73.6	236.9
72.5°	113.2	74.2	187.7	342.8	355.7	329.9	189.5	73.7	113.6	66.4	222.8
75°	96.4	72.9	179.8	273.8	261.0	261.0	175.5	70.8	98.7	66.5	173.2
77.5°	72.4	64.7	149.1	178.8	168.8	168.8	146.5	62.4	68.9	58.6	140.8
80°	54.8	59.1	122.8	131.4	125.0	125.0	118.4	57.0	54.8	54.8	116.2
82.5°	42.5	50.3	94.7	96.3	91.7	90.0	92.1	49.9	42.5	46.0	89.9
85°	24.1	34.8	50.4	41.5	35.0	32.9	48.3	32.7	21.9	32.7	48.3
87.5°	8.8	15.8	7.7	7.9	7.9	7.9	7.7	15.8	8.8	14.1	9.5
90°	0.0	1.1	3.4	4.5	4.5	4.5	3.4	1.1	0.0	1.1	3.4
92.5°	8.9	34.6	102.0	33.0	27.8	33.0	102.0	34.6	8.9	34.6	102.0
95°	29.2	86.0	370.9	132.3	88.5	132.3	370.9	86.0	29.2	86.0	370.9
97.5°	53.6	113.2	647.3	377.5	238.6	377.5	647.3	113.2	53.6	113.2	647.3
100°	70.6	127.5	749.5	643.7	426.8	643.7	749.5	127.5	70.6	127.5	749.5
102.5°	89.4	144.6	743.2	983.8	743.2	983.8	743.2	144.6	89.4	144.6	743.2
105°	118.7	169.1	678.8	1280.8	1197.6	1280.8	678.8	169.1	118.7	169.1	678.8
107.5°	148.8	193.7	617.3	1311.1	1374.4	1311.1	617.3	193.7	148.8	193.7	617.3
110°	165.8	210.8	585.9	1281.1	1409.3	1281.1	585.9	210.8	165.8	210.8	585.9



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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°	183.7	227.7	567.1	1228.2	1391.4	1228.2	567.1	227.7	183.7	227.7	567.1
115°	211.8	253.4	546.7	1138.1	1330.9	1138.1	546.7	253.4	211.8	253.4	546.7
117.5°	239.5	276.6	539.3	1052.1	1254.2	1052.1	539.3	276.6	239.5	276.6	539.3
120°	256.5	292.7	536.6	998.1	1194.2	998.1	536.6	292.7	256.5	292.7	536.6
122.5°	271.8	307.1	536.6	953.9	1135.1	953.9	536.6	307.1	271.8	307.1	536.6
125°	295.8	328.6	536.6	894.2	1054.2	894.2	536.6	328.6	295.8	328.6	536.6
127.5°	315.4	347.7	535.2	849.1	985.8	849.1	535.2	347.7	315.4	347.7	535.2
130°	327.1	361.1	534.3	822.9	945.6	822.9	534.3	361.1	327.1	361.1	534.3
132.5°	337.8	372.7	533.4	801.1	911.4	801.1	533.4	372.7	337.8	372.7	533.4
135°	354.0	390.2	532.1	767.4	866.0	767.4	532.1	390.2	354.0	390.2	532.1
137.5°	371.5	406.4	530.8	734.9	821.9	734.9	530.8	406.4	371.5	406.4	530.8
140°	383.2	417.1	529.9	713.2	793.1	713.2	529.9	417.1	383.2	417.1	529.9
142.5°	393.9	426.9	530.8	691.5	762.7	691.5	530.8	426.9	393.9	426.9	530.8
145°	411.1	441.9	531.1	660.2	722.6	660.2	531.1	441.9	411.1	441.9	531.1
147.5°	429.8	455.4	531.3	633.6	680.0	633.6	531.3	455.4	429.8	455.4	531.3
150°	441.4	464.4	532.1	618.1	657.6	618.1	532.1	464.4	441.4	464.4	532.1
152.5°	452.1	474.3	533.0	605.5	637.0	605.5	533.0	474.3	452.1	474.3	533.0
155°	469.4	485.8	534.3	589.7	611.7	589.7	534.3	485.8	469.4	485.8	534.3
157.5°	486.2	499.0	535.7	578.7	594.2	578.7	535.7	499.0	486.2	499.0	535.7
160°	495.1	506.1	536.6	570.5	582.5	570.5	536.6	506.1	495.1	506.1	536.6
162.5°	504.2	512.4	536.6	565.1	574.5	565.1	536.6	512.4	504.2	512.4	536.6
165°	515.3	520.8	536.6	558.0	563.5	558.0	536.6	520.8	515.3	520.8	536.6
167.5°	525.6	528.5	537.7	551.6	554.6	551.6	537.7	528.5	525.6	528.5	537.7
170°	531.1	532.1	537.7	548.9	550.1	548.9	537.7	532.1	531.1	532.1	537.7
172.5°	534.6	535.7	538.6	546.2	546.4	546.2	538.6	535.7	534.6	535.7	538.6
175°	538.9	538.9	540.0	543.3	542.3	543.3	540.0	538.9	538.9	538.9	540.0
177.5°	541.1	541.1	540.2	541.9	540.2	541.9	540.2	541.1	541.1	541.1	540.2
180°	541.1	541.1	541.1	541.1	541.1	541.1	541.1	541.1	541.1	541.1	541.1



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2907.9	2907.9	2907.9	2907.9	2907.9	2907.9
2.5°	2885.3	2897.4	2897.4	2890.3	2924.6	2892.1
5°	2855.9	2883.7	2870.8	2870.6	2913.7	2881.6
7.5°	2835.2	2861.3	2849.3	2846.8	2889.2	2863.6
10°	2813.9	2833.3	2824.7	2831.1	2870.0	2844.2
12.5°	2784.2	2806.9	2798.5	2808.3	2843.8	2823.2
15°	2732.9	2752.2	2756.4	2760.9	2802.1	2780.7
17.5°	2648.0	2657.5	2678.8	2709.1	2752.1	2728.0
20°	2581.4	2594.3	2607.1	2660.1	2709.9	2684.1
22.5°	2505.6	2501.3	2531.3	2593.4	2655.7	2633.3
25°	2301.1	2135.9	2318.2	2478.0	2561.2	2554.8
27.5°	1602.2	1390.4	1577.7	2287.3	2462.1	2475.0
30°	1260.9	1162.3	1258.7	2041.6	2388.8	2418.8
32.5°	1119.4	1051.7	1110.5	1554.0	2296.4	2353.9
35°	966.0	918.9	966.0	1162.3	2114.9	2247.8
37.5°	773.2	676.7	771.6	1004.4	1709.6	2133.3
40°	576.2	454.0	559.0	899.1	1366.3	2043.9
42.5°	383.9	292.5	363.3	707.9	1181.7	1924.6
45°	207.7	182.0	199.2	427.6	964.4	1714.8
47.5°	162.9	172.3	162.9	269.8	737.7	1358.4
50°	156.4	186.4	156.4	208.4	610.3	1028.5
52.5°	170.5	202.2	168.7	164.5	498.0	761.8
55°	193.2	298.3	195.4	133.8	365.2	513.2
57.5°	275.1	335.6	278.0	126.7	281.3	325.4
60°	282.5	361.8	280.4	133.8	217.6	241.3
62.5°	334.1	447.8	333.8	153.1	161.8	199.1
65°	428.6	471.5	432.9	195.1	115.6	179.8
67.5°	406.8	437.2	402.5	209.2	79.5	162.2
70°	399.7	423.2	395.4	239.0	73.8	136.0
72.5°	372.9	375.8	365.2	221.5	66.4	113.2
75°	289.0	269.8	278.4	190.7	66.5	96.4
77.5°	179.7	172.0	173.2	145.6	58.7	72.4
80°	135.9	131.6	129.5	122.8	54.8	54.8
82.5°	100.7	96.4	94.3	94.7	46.0	42.5
85°	45.9	41.7	39.6	54.8	32.7	24.1
87.5°	9.7	9.7	7.9	9.5	12.4	8.8
90°	4.5	4.5	4.5	3.4	1.1	0.0
92.5°	33.0	27.8	33.0	102.0	34.6	8.9
95°	132.3	88.5	132.3	370.9	86.0	29.2
97.5°	377.5	238.6	377.5	647.3	113.2	53.6
100°	643.7	426.8	643.7	749.5	127.5	70.6
102.5°	983.8	743.2	983.8	743.2	144.6	89.4
105°	1280.8	1197.6	1280.8	678.8	169.1	118.7
107.5°	1311.1	1374.4	1311.1	617.3	193.7	148.8
110°	1281.1	1409.3	1281.1	585.9	210.8	165.8



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CATALOG NUMBER: SQ2-FA-075U-100D-830-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	1228.2	1391.4	1228.2	567.1	227.7	183.7
115°	1138.1	1330.9	1138.1	546.7	253.4	211.8
117.5°	1052.1	1254.2	1052.1	539.3	276.6	239.5
120°	998.1	1194.2	998.1	536.6	292.7	256.5
122.5°	953.9	1135.1	953.9	536.6	307.1	271.8
125°	894.2	1054.2	894.2	536.6	328.6	295.8
127.5°	849.1	985.8	849.1	535.2	347.7	315.4
130°	822.9	945.6	822.9	534.3	361.1	327.1
132.5°	801.1	911.4	801.1	533.4	372.7	337.8
135°	767.4	866.0	767.4	532.1	390.2	354.0
137.5°	734.9	821.9	734.9	530.8	406.4	371.5
140°	713.2	793.1	713.2	529.9	417.1	383.2
142.5°	691.5	762.7	691.5	530.8	426.9	393.9
145°	660.2	722.6	660.2	531.1	441.9	411.1
147.5°	633.6	680.0	633.6	531.3	455.4	429.8
150°	618.1	657.6	618.1	532.1	464.4	441.4
152.5°	605.5	637.0	605.5	533.0	474.3	452.1
155°	589.7	611.7	589.7	534.3	485.8	469.4
157.5°	578.7	594.2	578.7	535.7	499.0	486.2
160°	570.5	582.5	570.5	536.6	506.1	495.1
162.5°	565.1	574.5	565.1	536.6	512.4	504.2
165°	558.0	563.5	558.0	536.6	520.8	515.3
167.5°	551.6	554.6	551.6	537.7	528.5	525.6
170°	548.9	550.1	548.9	537.7	532.1	531.1
172.5°	546.2	546.4	546.2	538.6	535.7	534.6
175°	543.3	542.3	543.3	540.0	538.9	538.9
177.5°	541.9	540.2	541.9	540.2	541.1	541.1
180°	541.1	541.1	541.1	541.1	541.1	541.1



TEST NUMBER: P854982

CATALOG NUMBER: SQ2-FA-075U-100D-830-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	13.84	14.64	14.77	15.57	16.76	12.70	13.49	13.62	14.42	15.62
	3H	14.54	15.25	15.48	16.19	17.41	18.85	19.56	19.79	20.50	21.72
	4H	14.95	15.62	15.90	16.56	17.79	20.12	20.80	21.07	21.74	22.97
	6H	15.30	15.92	16.26	16.87	18.11	20.73	21.35	21.69	22.30	23.53
	8H	15.41	16.00	16.38	16.97	18.21	20.85	21.44	21.82	22.40	23.64
	12H	15.49	16.05	16.46	17.00	18.26	20.89	21.45	21.86	22.41	23.67
4H	2H	14.23	14.91	15.19	15.85	17.08	13.23	13.90	14.18	14.84	16.07
	3H	15.23	15.79	16.19	16.76	18.00	19.55	20.11	20.51	21.08	22.32
	4H	15.79	16.30	16.76	17.27	18.53	21.00	21.51	21.97	22.48	23.74
	6H	16.26	16.70	17.25	17.69	18.96	21.73	22.17	22.72	23.17	24.43
	8H	16.43	16.84	17.42	17.83	19.10	21.90	22.31	22.89	23.30	24.57
	12H	16.54	16.91	17.55	17.92	19.20	21.96	22.33	22.96	23.33	24.61
8H	4H	16.88	17.30	17.87	18.28	19.56	21.12	21.53	22.11	22.52	23.79
	6H	17.49	17.83	18.50	18.86	20.13	22.00	22.34	23.01	23.36	24.64
	8H	17.73	18.02	18.75	19.04	20.33	22.25	22.55	23.27	23.56	24.85
	12H	17.90	18.16	18.92	19.16	20.51	22.37	22.63	23.39	23.64	24.98
12H	4H	17.03	17.40	18.03	18.40	19.68	21.08	21.45	22.08	22.45	23.73
	6H	17.77	18.06	18.79	19.08	20.37	22.01	22.31	23.03	23.32	24.61
	8H	18.06	18.33	19.09	19.33	20.67	22.29	22.55	23.31	23.55	24.90