

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: P937305

Luminaire Tested: SQ4-FB-075U-100D-B50-1D-UNV-STD-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937305
REPORT IS A COMBINATION OF REPORTS P933495 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-075U-100D-B50-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

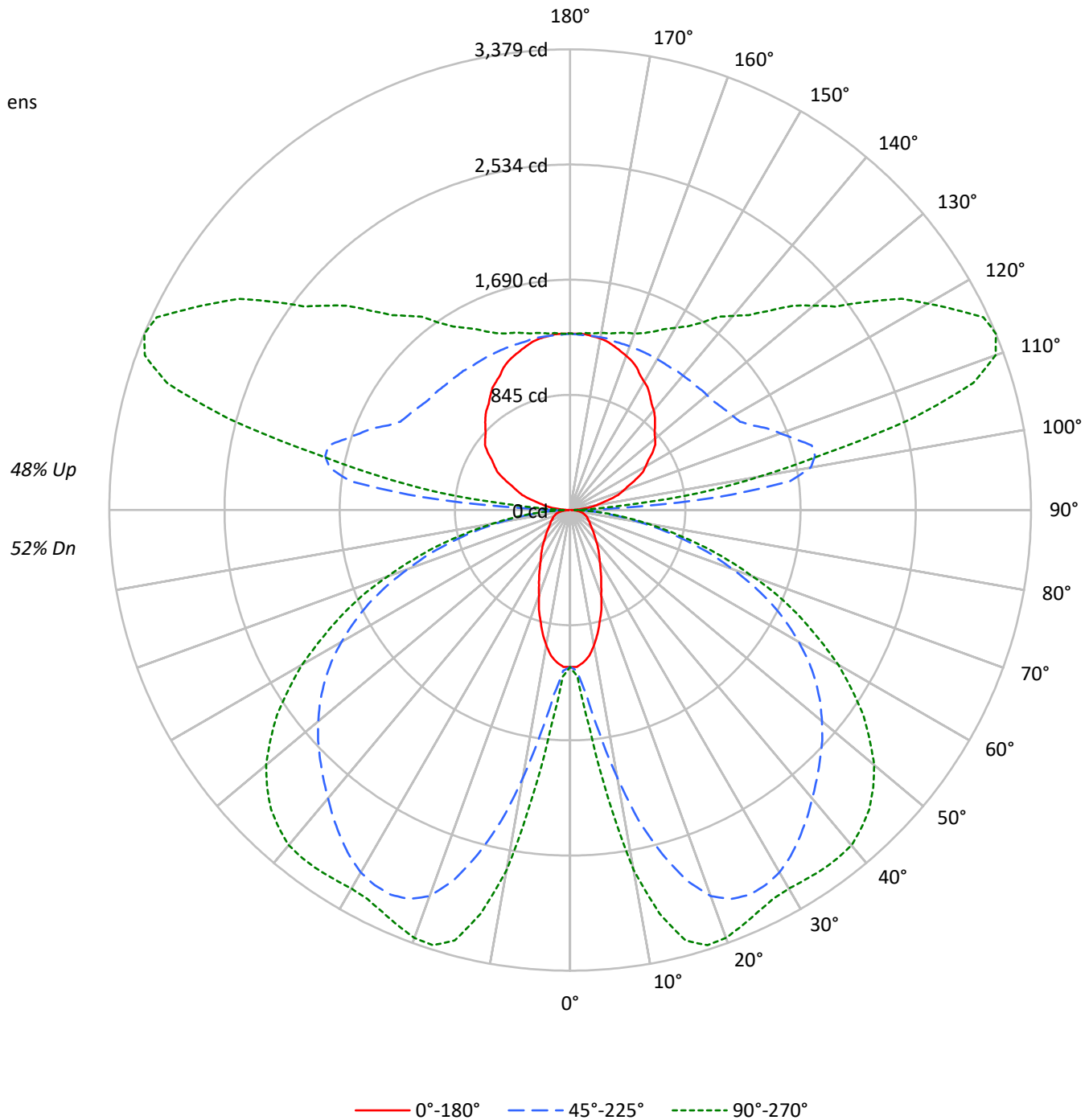
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17301.4 lumens
Efficiency: N/A
Efficacy: 112.6 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): 153.6
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				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	108	108	108	108	99	99	99	99	84	84	84	70	70	70	58	58	58	58	58	58	52
1	98	93	89	85	90	86	82	79	73	70	68	61	59	57	50	49	47	50	49	47	42
2	88	80	74	69	81	74	69	64	63	59	55	53	50	47	43	41	39	43	41	39	34
3	80	70	62	56	74	65	58	53	55	50	46	46	42	39	38	35	32	38	35	32	28
4	73	62	53	47	67	57	50	44	49	43	38	41	36	33	33	30	27	33	30	27	24
5	67	55	46	40	61	51	43	37	43	37	33	36	32	28	30	26	23	30	26	23	20
6	61	49	40	34	56	45	38	32	39	33	28	32	28	24	27	23	20	27	23	20	17
7	56	44	35	30	52	41	33	28	35	29	24	29	25	21	24	20	18	24	20	18	15
8	52	39	31	26	48	37	29	24	31	26	21	27	22	19	22	18	16	22	18	16	13
9	49	36	28	23	45	33	26	22	29	23	19	24	20	16	20	17	14	20	17	14	12
10	45	33	25	20	42	31	24	19	26	21	17	22	18	15	19	15	12	19	15	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3561	3561	3561
5°	3480	4117	4787
10°	3158	6003	7935
15°	2685	7844	9582
20°	2187	9093	9766
25°	1825	9517	9567
30°	1539	9580	9549
35°	1362	9423	9796
40°	1188	9219	10051
45°	1076	9070	10091
50°	988	8937	9924
55°	947	8741	9484
60°	971	8361	8789
65°	1012	7781	7835
70°	1080	6791	6619
75°	1202	5542	5166
80°	1322	3848	3480
85°	1199	2045	1782

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10091 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	148.9	0.9
10°-20°	660.1	3.8
20°-30°	1154.5	6.7
30°-40°	1486.2	8.6
40°-50°	1660.1	9.6
50°-60°	1590.0	9.2
60°-70°	1260.1	7.3
70°-80°	740.9	4.3
80°-90°	210.8	1.2
90°-100°	630.9	3.6
100°-110°	1658.6	9.6
110°-120°	1719.8	9.9
120°-130°	1379.5	8.0
130°-140°	1082.4	6.3
140°-150°	830.8	4.8
150°-160°	598.3	3.5
160°-170°	366.1	2.1
170°-180°	123.7	0.7
0°-30°	1963.5	11.3
0°-40°	3449.8	19.9
0°-60°	6699.8	38.7
0°-90°	8911.6	51.5
90°-120°	4009.2	23.2
90°-150°	7301.8	42.2
90°-180°	8390.0	48.5
0°-180°	17301.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1151	1151	1151	1151	1151	
5°	1122	1203	1355	1533	1588	104
15°	840	1551	2614	3169	3269	234
25°	537	1758	3113	3250	3254	247
35°	363	1681	2932	3098	3221	227
45°	248	1340	2591	2969	3102	192
55°	178	851	2199	2554	2625	162
65°	141	452	1632	1836	1862	139
75°	104	278	896	985	988	109
85°	37	85	222	244	248	39
90°	9	24	66	33	33	10
95°	83	327	1087	560	381	93
105°	299	452	1834	2784	2597	317
115°	531	644	1469	2930	3344	524
125°	738	828	1336	2258	2663	656
135°	880	968	1294	1822	2066	681
145°	1021	1086	1278	1555	1676	639
155°	1154	1186	1278	1403	1444	530
165°	1245	1261	1278	1328	1345	351
175°	1294	1294	1286	1303	1303	123
180°	1294	1294	1294	1294	1294	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1151.3	1151.3	1151.3	1151.3	1151.3	1151.3	1151.3	1151.3	1151.3	1151.3	1151.3
2.5°	1151.3	1151.3	1158.7	1162.5	1169.8	1173.6	1180.9	1188.3	1210.6	1214.3	1221.7
5°	1121.7	1136.5	1184.7	1203.2	1255.0	1325.3	1355.0	1403.1	1503.0	1532.6	1551.1
7.5°	1077.3	1110.6	1229.1	1258.7	1388.2	1573.3	1651.1	1754.7	1914.0	1991.7	2054.6
10°	1006.9	1077.3	1288.3	1358.6	1569.7	1851.0	1995.4	2139.8	2380.4	2487.7	2528.4
12.5°	929.2	1043.9	1351.2	1447.5	1751.1	2161.9	2335.9	2495.2	2769.1	2913.5	2935.7
15°	840.3	995.8	1410.4	1551.1	1943.6	2421.1	2613.6	2809.8	3065.3	3168.9	3194.8
17.5°	762.6	958.8	1466.0	1614.0	2091.6	2654.3	2850.6	3013.5	3220.7	3291.0	3309.6
20°	666.3	899.6	1503.0	1695.5	2247.1	2824.6	3013.5	3139.3	3279.9	3324.4	3331.8
22.5°	596.0	836.7	1525.2	1725.1	2350.8	2928.3	3087.4	3187.5	3283.7	3298.5	3302.2
25°	536.8	766.3	1521.5	1758.4	2439.6	2991.2	3113.4	3187.5	3242.9	3250.3	3250.3
27.5°	481.3	688.5	1506.7	1765.8	2506.3	3006.0	3102.3	3154.1	3180.0	3194.8	3194.8
30°	433.1	614.6	1469.6	1751.1	2535.9	2991.2	3068.9	3094.9	3120.8	3143.0	3154.1
32.5°	396.1	544.1	1414.2	1721.5	2539.5	2954.2	3009.7	3024.6	3061.6	3113.4	3131.9
35°	362.8	473.8	1351.2	1680.7	2517.3	2894.9	2932.0	2946.8	3020.8	3098.5	3124.5
37.5°	329.5	422.1	1269.8	1610.4	2484.1	2824.6	2850.6	2876.4	2991.2	3083.8	3113.4
40°	296.2	377.6	1173.6	1532.6	2432.2	2739.5	2761.7	2802.4	2954.2	3061.6	3091.2
42.5°	270.2	340.6	1069.9	1451.2	2365.5	2643.2	2676.6	2735.8	2909.8	3024.6	3057.8
45°	248.1	303.6	958.8	1340.1	2280.5	2543.3	2591.4	2672.8	2857.9	2969.0	2998.6
47.5°	225.8	277.7	844.1	1225.4	2187.9	2443.3	2506.3	2598.8	2787.6	2894.9	2920.9
50°	207.3	251.7	729.3	1103.2	2088.0	2335.9	2410.0	2506.3	2698.8	2798.7	2832.1
52.5°	192.5	229.5	622.0	981.1	1973.2	2224.9	2310.1	2410.0	2591.4	2687.7	2709.9
55°	177.7	211.0	529.4	851.4	1854.7	2106.5	2199.0	2295.2	2473.0	2554.4	2569.2
57.5°	170.3	196.2	451.7	729.3	1728.8	1973.2	2076.8	2165.7	2332.3	2395.1	2410.0
60°	159.2	185.1	392.4	625.6	1591.8	1847.3	1936.2	2025.0	2165.7	2217.5	2228.6
62.5°	148.0	177.7	348.0	525.7	1451.2	1699.2	1788.0	1869.5	1988.0	2025.0	2039.8
65°	140.7	170.3	314.7	451.7	1306.9	1543.7	1632.5	1703.0	1799.2	1836.2	1843.6
67.5°	133.3	162.9	288.8	388.7	1162.5	1388.2	1454.9	1521.5	1595.6	1632.5	1636.3
70°	122.2	155.5	266.6	344.3	1014.3	1210.6	1266.1	1336.5	1395.7	1414.2	1425.3
72.5°	114.8	144.4	251.7	310.9	862.5	1040.3	1092.1	1132.8	1184.7	1203.2	1203.2
75°	103.7	129.5	237.0	277.7	707.0	851.4	895.9	936.6	977.3	984.7	973.6
77.5°	92.6	114.8	203.6	233.2	551.6	673.8	710.8	733.0	766.3	773.7	777.5
80°	77.7	99.9	159.2	181.4	399.8	496.0	522.0	540.5	570.1	570.1	577.5
82.5°	59.2	77.7	114.8	129.5	270.2	340.6	362.8	373.9	392.4	392.4	392.4
85°	37.0	48.1	74.1	85.2	162.9	207.3	222.1	225.8	240.6	244.3	244.3
87.5°	18.5	25.9	48.1	51.8	85.2	107.3	107.3	114.8	114.8	111.1	107.3
90°	8.7	15.6	22.5	24.3	38.2	56.8	66.0	58.7	44.0	33.0	33.0
92.5°	34.7	93.8	152.9	167.7	235.6	326.3	371.7	325.8	234.0	165.0	158.5
95°	83.4	191.5	299.6	326.6	579.9	917.7	1086.6	969.7	735.7	560.2	540.3
97.5°	144.2	239.6	334.9	358.7	781.2	1344.4	1626.0	1552.0	1404.2	1293.3	1255.5
100°	191.1	277.6	364.1	385.6	854.4	1479.4	1791.9	1797.3	1808.1	1816.3	1771.1
102.5°	231.1	311.8	392.4	412.5	888.0	1521.9	1838.9	1933.0	2121.4	2262.7	2224.1
105°	298.8	367.2	435.4	452.5	912.9	1526.7	1833.6	2044.8	2467.2	2783.9	2763.1
107.5°	368.3	432.0	495.7	511.6	917.6	1458.8	1729.4	2024.0	2613.1	3054.8	3059.9
110°	415.2	472.7	530.2	544.6	910.6	1398.6	1642.5	1971.9	2630.4	3124.3	3145.9



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	461.2	516.0	570.9	584.6	910.9	1346.0	1563.5	1900.5	2574.6	3080.1	3113.2
115°	530.7	581.2	631.9	644.5	919.2	1285.7	1468.8	1793.5	2442.8	2929.8	2975.8
117.5°	599.3	645.3	691.2	702.6	936.3	1247.8	1403.6	1696.6	2282.6	2722.1	2773.2
120°	639.3	682.6	725.7	736.6	950.3	1235.1	1377.6	1645.2	2180.7	2582.3	2631.9
122.5°	678.4	722.0	765.6	776.5	970.2	1228.5	1357.6	1598.6	2080.9	2442.5	2491.4
125°	738.3	778.1	817.9	827.8	997.1	1223.0	1335.9	1540.7	1950.3	2257.5	2302.6
127.5°	787.0	827.2	867.3	877.3	1024.1	1219.8	1317.7	1493.6	1845.2	2109.0	2147.0
130°	813.0	856.3	899.4	910.3	1043.7	1221.7	1310.7	1467.2	1780.3	2015.1	2050.2
132.5°	839.9	883.2	926.3	937.2	1059.6	1223.0	1304.6	1444.7	1725.0	1935.2	1966.7
135°	879.9	919.2	958.7	968.5	1077.1	1221.9	1294.2	1411.6	1646.3	1822.3	1849.4
137.5°	920.7	959.7	998.7	1008.4	1103.1	1229.3	1292.5	1391.7	1590.1	1738.9	1761.2
140°	954.5	990.4	1026.4	1035.3	1119.0	1230.6	1286.4	1372.1	1543.5	1672.0	1692.8
142.5°	980.6	1013.9	1047.0	1055.3	1132.4	1235.0	1286.4	1361.7	1512.2	1625.2	1643.0
145°	1020.6	1049.5	1078.5	1085.8	1149.8	1235.0	1277.7	1339.3	1462.5	1554.8	1568.4
147.5°	1060.6	1088.8	1117.0	1124.0	1175.3	1243.5	1277.7	1326.2	1423.0	1495.7	1506.9
150°	1086.6	1112.1	1137.6	1144.0	1188.5	1248.0	1277.7	1318.6	1400.4	1461.8	1470.9
152.5°	1113.5	1132.8	1152.1	1156.9	1197.2	1250.9	1277.7	1312.6	1382.5	1434.9	1441.7
155°	1153.5	1167.8	1182.1	1185.6	1216.3	1257.3	1277.7	1305.5	1361.1	1402.8	1407.4
157.5°	1183.0	1196.9	1210.8	1214.3	1235.4	1263.6	1277.7	1299.3	1342.5	1374.9	1378.1
160°	1203.0	1213.8	1224.7	1227.4	1244.2	1266.5	1277.7	1296.2	1333.3	1361.1	1363.0
162.5°	1223.0	1231.1	1239.1	1241.2	1253.3	1269.6	1277.7	1293.3	1324.6	1348.0	1349.8
165°	1244.7	1252.0	1259.3	1261.2	1266.7	1274.1	1277.7	1288.9	1311.2	1328.1	1329.9
167.5°	1264.6	1268.1	1271.6	1272.5	1277.2	1283.3	1286.4	1293.7	1308.3	1319.4	1320.1
170°	1277.7	1281.2	1284.7	1285.6	1285.8	1286.2	1286.4	1293.7	1308.3	1319.4	1319.4
172.5°	1284.6	1285.4	1286.2	1286.4	1286.4	1286.4	1286.4	1292.2	1303.8	1312.5	1311.8
175°	1294.2	1294.2	1294.2	1294.2	1291.6	1288.2	1286.4	1290.0	1297.4	1302.9	1302.9
177.5°	1294.2	1294.2	1294.2	1294.2	1292.2	1289.5	1288.2	1291.1	1296.9	1301.2	1300.4
180°	1294.2	1294.2	1294.2	1294.2	1294.2	1294.2	1294.2	1294.2	1294.2	1294.2	1294.2



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1151.3	<i>1151.3</i>
2.5°	1229.1	<i>1221.7</i>
5°	1580.8	<i>1588.2</i>
7.5°	2128.7	<i>2124.9</i>
10°	2647.0	<i>2680.2</i>
12.5°	3024.6	<i>3032.0</i>
15°	3254.1	<i>3268.9</i>
17.5°	3342.9	<i>3346.6</i>
20°	3346.6	<i>3339.2</i>
22.5°	3305.9	<i>3298.5</i>
25°	3257.8	<i>3254.1</i>
27.5°	3213.3	<i>3217.1</i>
30°	3194.8	<i>3206.0</i>
32.5°	3194.8	<i>3213.3</i>
35°	3202.2	<i>3220.7</i>
37.5°	3198.5	<i>3220.7</i>
40°	3183.7	<i>3209.6</i>
42.5°	3143.0	<i>3161.5</i>
45°	3080.1	<i>3102.3</i>
47.5°	2998.6	<i>3013.5</i>
50°	2894.9	<i>2909.8</i>
52.5°	2765.4	<i>2769.1</i>
55°	2609.9	<i>2624.7</i>
57.5°	2443.3	<i>2447.0</i>
60°	2258.2	<i>2269.3</i>
62.5°	2062.0	<i>2062.0</i>
65°	1854.7	<i>1862.1</i>
67.5°	1640.0	<i>1658.5</i>
70°	1421.5	<i>1425.3</i>
72.5°	1206.8	<i>1206.8</i>
75°	984.7	<i>988.5</i>
77.5°	773.7	<i>773.7</i>
80°	573.8	<i>577.5</i>
82.5°	396.1	<i>403.5</i>
85°	248.1	<i>248.1</i>
87.5°	114.8	<i>103.7</i>
90°	33.0	<i>33.0</i>
92.5°	132.3	<i>106.0</i>
95°	460.8	<i>381.4</i>
97.5°	1104.2	<i>952.9</i>
100°	1590.9	<i>1410.6</i>
102.5°	2069.7	<i>1915.3</i>
105°	2680.1	<i>2597.1</i>
107.5°	3080.0	<i>3100.0</i>
110°	3232.4	<i>3318.9</i>



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	3246.0	3378.8
115°	3159.9	3344.1
117.5°	2977.4	3181.7
120°	2830.4	3028.8
122.5°	2687.1	2882.9
125°	2482.9	2663.1
127.5°	2299.1	2451.2
130°	2190.8	2331.4
132.5°	2092.5	2218.4
135°	1957.9	2066.4
137.5°	1849.9	1938.7
140°	1775.8	1858.8
142.5°	1714.5	1785.8
145°	1622.4	1676.3
147.5°	1551.7	1596.5
150°	1507.2	1543.5
152.5°	1469.2	1496.5
155°	1425.5	1443.6
157.5°	1390.9	1403.6
160°	1370.3	1377.6
162.5°	1356.7	1363.7
165°	1337.2	1344.6
167.5°	1323.3	1326.4
170°	1319.4	1319.4
172.5°	1309.1	1306.4
175°	1302.9	1302.9
177.5°	1297.3	1294.2
180°	1294.2	1294.2



TEST NUMBER: P937305
 CATALOG NUMBER: SQ4-FB-075U-100D-B50-1D-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	5.56	6.48	6.50	7.43	8.68	18.75	19.67	19.69	20.63	21.87
	3H	6.27	7.09	7.22	8.06	9.33	20.60	21.42	21.55	22.39	23.66
	4H	6.57	7.35	7.53	8.32	9.60	21.25	22.03	22.21	23.00	24.28
	6H	6.82	7.54	7.80	8.52	9.81	21.69	22.41	22.66	23.39	24.68
	8H	6.89	7.58	7.87	8.57	9.86	21.81	22.50	22.79	23.50	24.78
	12H	6.91	7.56	7.90	8.55	9.87	21.89	22.54	22.87	23.53	24.84
4H	2H	12.79	13.57	13.76	14.54	15.82	19.03	19.81	20.00	20.78	22.06
	3H	14.36	15.01	15.34	16.02	17.31	21.09	21.74	22.07	22.74	24.03
	4H	14.46	15.06	15.45	16.05	17.37	21.86	22.46	22.85	23.45	24.77
	6H	14.47	14.99	15.47	16.01	17.32	22.41	22.92	23.41	23.94	25.26
	8H	14.45	14.93	15.45	15.95	17.27	22.57	23.06	23.57	24.07	25.40
	12H	14.41	14.85	15.43	15.87	17.21	22.67	23.11	23.69	24.14	25.47
8H	4H	15.91	16.39	16.91	17.41	18.73	21.93	22.41	22.93	23.42	24.75
	6H	16.16	16.56	17.18	17.61	18.94	22.56	22.96	23.59	24.02	25.34
	8H	16.17	16.53	17.21	17.57	18.91	22.79	23.14	23.82	24.18	25.52
	12H	16.15	16.46	17.18	17.49	18.88	22.94	23.25	23.97	24.28	25.67
12H	4H	16.06	16.50	17.08	17.52	18.86	21.88	22.32	22.90	23.34	24.68
	6H	16.42	16.77	17.45	17.81	19.16	22.55	22.90	23.58	23.94	25.28
	8H	16.49	16.80	17.53	17.83	19.22	22.78	23.09	23.82	24.13	25.51