

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: P853803

Luminaire Tested: SQ2-FA-125U-075D-930-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P853803  
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-075D-930-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 750 LUMENS PER FOOT  
UPLIGHT 1250 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

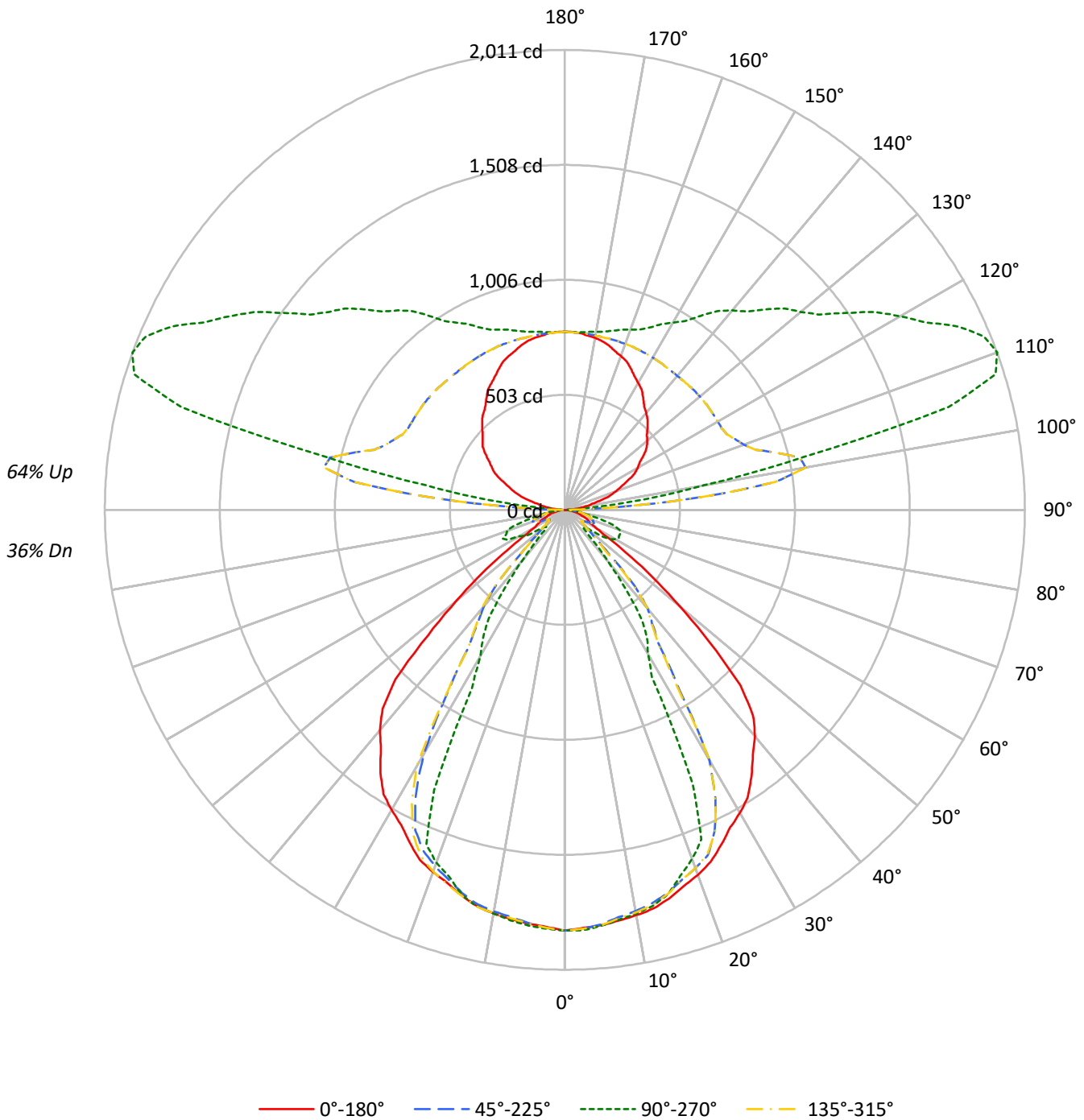
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7489.6 lumens  
Efficiency: N/A  
Efficacy: 106.1 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: Semi-Indirect  
  
Input Watts (W): 70.6  
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	104	104	104	104	94	94	94	94	75	75	75	59	59	59	43	43	43	36
1	95	91	88	85	86	83	80	77	67	65	63	53	51	50	39	39	38	32
2	88	81	75	71	79	74	69	65	60	57	54	47	45	43	36	34	33	28
3	81	72	65	60	73	66	60	56	54	50	47	43	40	38	33	31	30	25
4	74	64	57	52	67	59	53	48	49	44	41	39	36	33	30	28	26	23
5	69	58	51	45	62	53	47	42	44	39	36	36	32	30	28	26	24	20
6	64	52	45	40	58	48	42	37	40	35	32	33	29	27	26	23	22	19
7	59	48	40	35	54	44	38	33	37	32	29	30	27	24	24	21	20	17
8	55	44	36	32	50	40	34	30	34	29	26	28	24	22	22	20	18	16
9	51	40	33	28	47	37	31	27	31	27	23	26	22	20	21	18	17	15
10	48	37	30	26	44	34	28	24	29	24	21	24	21	18	19	17	15	14

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

	0°	90°	180°	270°
0°	29705	29705	29705	29705
5°	29548	29593	29436	29571
10°	29503	29390	29390	29390
15°	29407	29107	29175	29107
20°	29180	27940	28965	28203
25°	28796	23580	28598	24075
30°	28532	13528	28221	13711
35°	28032	11623	27675	11458
40°	27255	6112	26494	6053
45°	24775	2630	23889	2630
50°	16345	3172	15508	2961
55°	9140	5858	8670	5312
60°	4928	8244	4837	7392
65°	4348	10017	4558	11396
70°	4060	11986	3866	12642
75°	3805	10299	3893	10649
80°	3226	7355	3226	7736
85°	2834	4113	2575	4891

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 24775 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	173.1	2.3
10°-20°	491.2	6.6
20°-30°	669.7	8.9
30°-40°	562.8	7.5
40°-50°	319.7	4.3
50°-60°	169.6	2.3
60°-70°	156.2	2.1
70°-80°	114.6	1.5
80°-90°	30.8	0.4
90°-100°	297.7	4.0
100°-110°	969.3	12.9
110°-120°	958.8	12.8
120°-130°	783.5	10.5
130°-140°	640.4	8.6
140°-150°	498.8	6.7
150°-160°	359.5	4.8
160°-170°	219.7	2.9
170°-180°	74.1	1.0
0°-30°	1334.0	17.8
0°-40°	1896.8	25.3
0°-60°	2386.1	31.9
0°-90°	2687.7	35.9
90°-120°	2225.8	29.7
90°-150°	4148.5	55.4
90°-180°	4802.0	64.1
0°-180°	7489.6	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1840	1840	1840	1840	1840	
5°	1823	1826	1816	1824	1823	173
15°	1759	1741	1745	1741	1759	496
25°	1616	1324	1605	1351	1616	745
35°	1422	590	1404	581	1422	888
45°	1085	115	1046	115	1085	793
55°	325	208	308	189	325	313
65°	114	262	119	298	114	114
75°	61	165	62	171	61	63
85°	15	22	14	26	15	17
90°	0	6	0	6	0	3
95°	40	120	40	120	40	47
105°	165	1737	165	1737	165	176
115°	304	1896	304	1896	304	301
125°	423	1500	423	1500	423	377
135°	511	1239	511	1239	511	395
145°	597	1036	597	1036	597	374
155°	682	879	682	879	682	314
165°	744	811	744	811	744	209
175°	775	779	775	779	775	74
180°	778	778	778	778	778	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	1839.8	1839.8	1839.8	1839.8	1839.8	1839.8	1839.8	1839.8	1839.8	1839.8	1839.8
2.5°	1829.8	1856.9	1833.1	1830.0	1839.8	1837.6	1834.2	1847.1	1825.4	1847.1	1829.8
5°	1823.1	1854.3	1819.0	1809.6	1825.9	1815.1	1824.5	1843.3	1816.2	1840.6	1813.4
7.5°	1811.8	1839.4	1797.0	1791.0	1807.0	1797.5	1801.5	1827.6	1804.8	1820.8	1796.2
10°	1799.5	1824.0	1781.5	1777.7	1792.6	1783.1	1787.1	1814.3	1792.6	1807.5	1782.9
12.5°	1786.2	1805.2	1762.6	1761.0	1773.7	1767.5	1769.3	1792.2	1774.8	1789.8	1766.2
15°	1759.3	1776.9	1734.3	1727.7	1741.3	1735.8	1738.5	1759.0	1745.4	1754.9	1734.3
17.5°	1726.0	1740.1	1697.7	1677.7	1678.3	1685.1	1697.7	1722.4	1710.2	1722.7	1693.5
20°	1698.3	1714.5	1667.7	1628.8	1626.1	1632.9	1667.7	1692.6	1685.8	1699.3	1658.0
22.5°	1666.1	1676.9	1634.4	1568.7	1559.5	1566.3	1630.0	1659.4	1656.9	1666.1	1614.7
25°	1616.4	1627.3	1549.8	1455.2	1323.6	1447.1	1552.6	1605.3	1605.3	1613.4	1545.6
27.5°	1565.9	1566.2	1426.0	934.6	824.4	900.9	1424.1	1538.4	1551.5	1547.4	1414.1
30°	1530.4	1520.9	1264.0	755.5	725.6	744.6	1265.4	1492.0	1513.7	1498.8	1232.1
32.5°	1489.3	1462.4	933.2	694.6	670.1	687.0	902.4	1436.9	1474.9	1442.6	969.0
35°	1422.2	1351.6	711.8	614.1	589.7	611.4	706.2	1328.1	1404.1	1317.3	735.4
37.5°	1349.7	1074.3	626.6	489.1	436.5	478.6	623.5	1062.8	1320.3	1038.1	626.0
40°	1293.1	844.1	563.3	357.8	290.0	337.5	559.1	805.3	1257.0	866.3	549.4
42.5°	1217.6	741.5	452.3	227.3	177.9	208.0	433.7	724.3	1179.3	750.7	437.3
45°	1085.0	637.3	267.8	124.7	115.2	120.6	247.0	625.6	1046.2	612.0	273.3
47.5°	859.4	486.1	172.0	106.0	116.3	106.0	166.8	470.6	811.7	469.8	171.8
50°	650.7	379.4	133.2	107.3	126.3	107.3	129.0	366.4	617.4	400.4	131.8
52.5°	482.0	317.0	108.8	117.6	151.8	119.8	105.7	308.6	457.6	323.0	103.0
55°	324.7	248.7	87.4	155.2	208.1	159.3	87.4	241.5	308.0	238.8	84.6
57.5°	205.9	185.0	88.5	199.5	237.5	203.3	89.9	178.3	197.6	179.1	77.7
60°	152.6	145.8	98.5	211.9	255.3	214.6	99.9	140.4	149.8	139.0	83.2
62.5°	126.0	114.9	118.5	229.5	265.3	223.5	121.0	109.5	131.0	104.9	92.1
65°	113.8	74.4	140.1	232.4	262.2	232.4	141.5	70.5	119.3	75.9	124.9
67.5°	102.7	55.2	135.4	230.8	263.9	231.3	132.1	52.7	98.5	51.3	127.6
70°	86.0	49.4	127.6	234.9	253.9	226.8	127.6	47.9	81.9	46.6	149.8
72.5°	71.6	46.9	118.8	216.9	225.0	208.8	119.9	46.6	71.9	42.0	141.0
75°	61.0	46.1	113.8	173.2	165.1	165.1	111.0	44.8	62.4	42.1	109.6
77.5°	45.8	40.9	94.3	113.1	106.8	106.8	92.7	39.5	43.6	37.1	89.1
80°	34.7	37.4	77.7	83.2	79.1	79.1	74.9	36.0	34.7	34.7	73.5
82.5°	26.9	31.8	59.9	61.0	58.0	56.9	58.3	31.5	26.9	29.1	56.9
85°	15.3	22.0	31.9	26.3	22.2	20.8	30.5	20.7	13.9	20.7	30.5
87.5°	5.5	10.5	5.8	5.6	5.6	5.6	5.8	10.5	5.5	9.4	6.9
90°	0.0	2.8	6.7	5.7	5.7	5.7	6.7	2.8	0.0	2.8	6.7
92.5°	13.8	49.5	158.3	52.2	40.2	52.2	158.3	49.5	13.8	49.5	158.3
95°	40.2	122.6	545.7	194.5	119.7	194.5	545.7	122.6	40.2	122.6	545.7
97.5°	75.6	159.5	926.1	564.0	344.2	564.0	926.1	159.5	75.6	159.5	926.1
100°	98.6	181.0	1069.3	953.5	618.4	953.5	1069.3	181.0	98.6	181.0	1069.3
102.5°	124.6	204.0	1051.7	1410.7	1072.6	1410.7	1051.7	204.0	124.6	204.0	1051.7
105°	164.7	237.7	960.2	1833.9	1736.6	1833.9	960.2	237.7	164.7	237.7	960.2
107.5°	207.9	276.6	873.3	1870.6	1973.8	1870.6	873.3	276.6	207.9	276.6	873.3
110°	239.3	302.0	831.9	1825.0	2011.3	1825.0	831.9	302.0	239.3	302.0	831.9



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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°	265.4	327.3	805.9	1742.8	1983.0	1742.8	805.9	327.3	265.4	327.3	805.9
115°	304.4	363.4	782.1	1611.9	1896.4	1611.9	782.1	363.4	304.4	363.4	782.1
117.5°	344.6	397.8	772.9	1492.0	1775.2	1492.0	772.9	397.8	344.6	397.8	772.9
120°	367.6	420.0	770.6	1418.3	1692.5	1418.3	770.6	420.0	367.6	420.0	770.6
122.5°	389.8	441.5	771.4	1354.3	1609.8	1354.3	771.4	441.5	389.8	441.5	771.4
125°	423.1	471.8	771.6	1272.6	1500.1	1272.6	771.6	471.8	423.1	471.8	771.6
127.5°	451.7	501.5	771.4	1211.5	1401.1	1211.5	771.4	501.5	451.7	501.5	771.4
130°	470.0	520.6	770.6	1176.5	1346.0	1176.5	770.6	520.6	470.0	520.6	770.6
132.5°	486.1	538.9	769.9	1144.1	1303.1	1144.1	769.9	538.9	486.1	538.9	769.9
135°	511.2	564.6	767.8	1098.3	1238.8	1098.3	767.8	564.6	511.2	564.6	767.8
137.5°	535.7	589.4	765.7	1051.8	1176.5	1051.8	765.7	589.4	535.7	589.4	765.7
140°	553.3	604.8	764.9	1020.3	1138.2	1020.3	764.9	604.8	553.3	604.8	764.9
142.5°	570.2	619.4	764.9	990.1	1095.3	990.1	764.9	619.4	570.2	619.4	764.9
145°	597.4	641.4	765.8	945.9	1035.8	945.9	765.8	641.4	597.4	641.4	765.8
147.5°	623.8	662.0	767.2	908.3	977.8	908.3	767.2	662.0	623.8	662.0	767.2
150°	641.4	675.1	768.7	885.9	944.9	885.9	768.7	675.1	641.4	675.1	768.7
152.5°	659.0	686.7	769.5	868.8	915.8	868.8	769.5	686.7	659.0	686.7	769.5
155°	681.6	704.1	770.6	847.0	878.8	847.0	770.6	704.1	681.6	704.1	770.6
157.5°	703.0	719.1	771.8	830.9	853.1	830.9	771.8	719.1	703.0	719.1	771.8
160°	716.1	729.2	772.5	820.8	838.6	820.8	772.5	729.2	716.1	729.2	772.5
162.5°	727.6	737.7	772.5	812.3	825.6	812.3	772.5	737.7	727.6	737.7	772.5
165°	743.8	750.4	772.5	801.5	810.8	801.5	772.5	750.4	743.8	750.4	772.5
167.5°	755.3	759.4	772.7	793.3	798.2	793.3	772.7	759.4	755.3	759.4	772.7
170°	763.0	764.8	773.5	787.9	789.8	787.9	773.5	764.8	763.0	764.8	773.5
172.5°	768.3	769.5	775.0	784.8	784.4	784.8	775.0	769.5	768.3	769.5	775.0
175°	775.4	775.4	775.4	781.1	779.2	781.1	775.4	775.4	775.4	775.4	775.4
177.5°	778.3	777.5	776.8	780.5	777.5	780.5	776.8	777.5	778.3	777.5	776.8
180°	778.3	778.3	778.3	778.3	778.3	778.3	778.3	778.3	778.3	778.3	778.3



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**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1839.8	1839.8	1839.8	1839.8	1839.8	1839.8
2.5°	1825.5	1833.1	1833.1	1828.7	1850.4	1829.8
5°	1806.9	1824.5	1816.4	1816.2	1843.5	1823.1
7.5°	1793.8	1810.4	1802.8	1801.2	1828.0	1811.8
10°	1780.4	1792.6	1787.2	1791.2	1815.8	1799.5
12.5°	1761.6	1776.0	1770.5	1776.8	1799.3	1786.2
15°	1729.1	1741.3	1744.0	1746.8	1772.9	1759.3
17.5°	1675.4	1681.3	1694.9	1714.1	1741.2	1726.0
20°	1633.2	1641.4	1649.5	1683.0	1714.5	1698.3
22.5°	1585.3	1582.5	1601.5	1640.8	1680.2	1666.1
25°	1455.9	1351.4	1466.7	1567.8	1620.5	1616.4
27.5°	1013.7	879.7	998.2	1447.1	1557.8	1565.9
30°	797.8	735.4	796.4	1291.7	1511.4	1530.4
32.5°	708.3	665.4	702.6	983.2	1453.0	1489.3
35°	611.2	581.3	611.2	735.4	1338.0	1422.2
37.5°	489.2	428.2	488.1	635.5	1081.7	1349.7
40°	364.5	287.2	353.7	568.9	864.4	1293.1
42.5°	242.9	185.1	229.9	447.9	747.7	1217.6
45°	131.4	115.2	126.0	270.6	610.2	1085.0
47.5°	103.1	109.1	103.1	170.7	466.8	859.4
50°	98.9	117.9	98.9	131.8	386.2	650.7
52.5°	107.8	127.9	106.8	104.1	315.1	482.0
55°	122.2	188.7	123.6	84.6	231.1	324.7
57.5°	174.0	212.3	175.9	80.2	178.0	205.9
60°	178.7	228.9	177.4	84.6	137.7	152.6
62.5°	211.4	283.3	211.1	96.8	102.4	126.0
65°	271.2	298.3	273.9	123.5	73.1	113.8
67.5°	257.4	276.7	254.7	132.4	50.3	102.7
70°	252.9	267.8	250.1	151.2	46.7	86.0
72.5°	235.9	237.8	231.0	140.1	42.0	71.6
75°	182.9	170.7	176.1	120.7	42.1	61.0
77.5°	113.7	108.8	109.6	92.1	37.1	45.8
80°	86.0	83.2	81.9	77.7	34.7	34.7
82.5°	63.8	61.0	59.7	59.9	29.1	26.9
85°	29.1	26.4	25.0	34.7	20.7	15.3
87.5°	6.7	6.7	5.6	6.9	8.3	5.5
90°	5.7	5.7	5.7	6.7	2.8	0.0
92.5°	52.2	40.2	52.2	158.3	49.5	13.8
95°	194.5	119.7	194.5	545.7	122.6	40.2
97.5°	564.0	344.2	564.0	926.1	159.5	75.6
100°	953.5	618.4	953.5	1069.3	181.0	98.6
102.5°	1410.7	1072.6	1410.7	1051.7	204.0	124.6
105°	1833.9	1736.6	1833.9	960.2	237.7	164.7
107.5°	1870.6	1973.8	1870.6	873.3	276.6	207.9
110°	1825.0	2011.3	1825.0	831.9	302.0	239.3





TEST NUMBER: P853803

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**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	1742.8	1983.0	1742.8	805.9	327.3	265.4
115°	1611.9	1896.4	1611.9	782.1	363.4	304.4
117.5°	1492.0	1775.2	1492.0	772.9	397.8	344.6
120°	1418.3	1692.5	1418.3	770.6	420.0	367.6
122.5°	1354.3	1609.8	1354.3	771.4	441.5	389.8
125°	1272.6	1500.1	1272.6	771.6	471.8	423.1
127.5°	1211.5	1401.1	1211.5	771.4	501.5	451.7
130°	1176.5	1346.0	1176.5	770.6	520.6	470.0
132.5°	1144.1	1303.1	1144.1	769.9	538.9	486.1
135°	1098.3	1238.8	1098.3	767.8	564.6	511.2
137.5°	1051.8	1176.5	1051.8	765.7	589.4	535.7
140°	1020.3	1138.2	1020.3	764.9	604.8	553.3
142.5°	990.1	1095.3	990.1	764.9	619.4	570.2
145°	945.9	1035.8	945.9	765.8	641.4	597.4
147.5°	908.3	977.8	908.3	767.2	662.0	623.8
150°	885.9	944.9	885.9	768.7	675.1	641.4
152.5°	868.8	915.8	868.8	769.5	686.7	659.0
155°	847.0	878.8	847.0	770.6	704.1	681.6
157.5°	830.9	853.1	830.9	771.8	719.1	703.0
160°	820.8	838.6	820.8	772.5	729.2	716.1
162.5°	812.3	825.6	812.3	772.5	737.7	727.6
165°	801.5	810.8	801.5	772.5	750.4	743.8
167.5°	793.3	798.2	793.3	772.7	759.4	755.3
170°	787.9	789.8	787.9	773.5	764.8	763.0
172.5°	784.8	784.4	784.8	775.0	769.5	768.3
175°	781.1	779.2	781.1	775.4	775.4	775.4
177.5°	780.5	777.5	780.5	776.8	777.5	778.3
180°	778.3	778.3	778.3	778.3	778.3	778.3



TEST NUMBER: P853803

CATALOG NUMBER: SQ2-FA-125U-075D-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	10.19	10.87	11.28	11.95	13.41	9.05	9.73	10.13	10.80	12.27
	3H	10.88	11.49	11.98	12.58	14.06	15.19	15.80	16.29	16.88	18.37
	4H	11.29	11.86	12.39	12.95	14.44	16.46	17.04	17.57	18.12	19.61
	6H	11.64	12.17	12.75	13.25	14.75	17.06	17.59	18.18	18.68	20.18
	8H	11.75	12.25	12.87	13.36	14.85	17.18	17.69	18.30	18.79	20.28
	12H	11.82	12.30	12.94	13.39	14.91	17.22	17.70	18.34	18.79	20.31
4H	2H	10.57	11.15	11.68	12.23	13.72	9.57	10.14	10.68	11.23	12.72
	3H	11.56	12.04	12.68	13.15	14.65	15.88	16.36	17.00	17.47	18.98
	4H	12.12	12.56	13.24	13.66	15.18	17.33	17.77	18.45	18.87	20.39
	6H	12.59	12.96	13.71	14.09	15.60	18.06	18.44	19.19	19.56	21.08
	8H	12.76	13.11	13.88	14.22	15.75	18.22	18.58	19.35	19.69	21.22
	12H	12.86	13.18	14.01	14.31	15.85	18.28	18.60	19.42	19.73	21.26
8H	4H	13.21	13.56	14.34	14.68	16.21	17.44	17.80	18.57	18.91	20.44
	6H	13.81	14.10	14.96	15.26	16.79	18.32	18.61	19.47	19.77	21.29
	8H	14.05	14.30	15.20	15.44	16.99	18.57	18.82	19.72	19.96	21.51
	12H	14.22	14.44	15.37	15.57	17.16	18.69	18.91	19.84	20.04	21.63
12H	4H	13.35	13.67	14.49	14.80	16.33	17.40	17.72	18.54	18.85	20.38
	6H	14.09	14.34	15.24	15.48	17.03	18.33	18.58	19.48	19.72	21.27
	8H	14.38	14.60	15.54	15.74	17.32	18.60	18.83	19.76	19.96	21.54