

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: P935858

Luminaire Tested: SQ4-FA-150U-050D-93050-1D-UNV-STD-W-4-3500K

Issue Date: 12/17/2024

**Test Information**

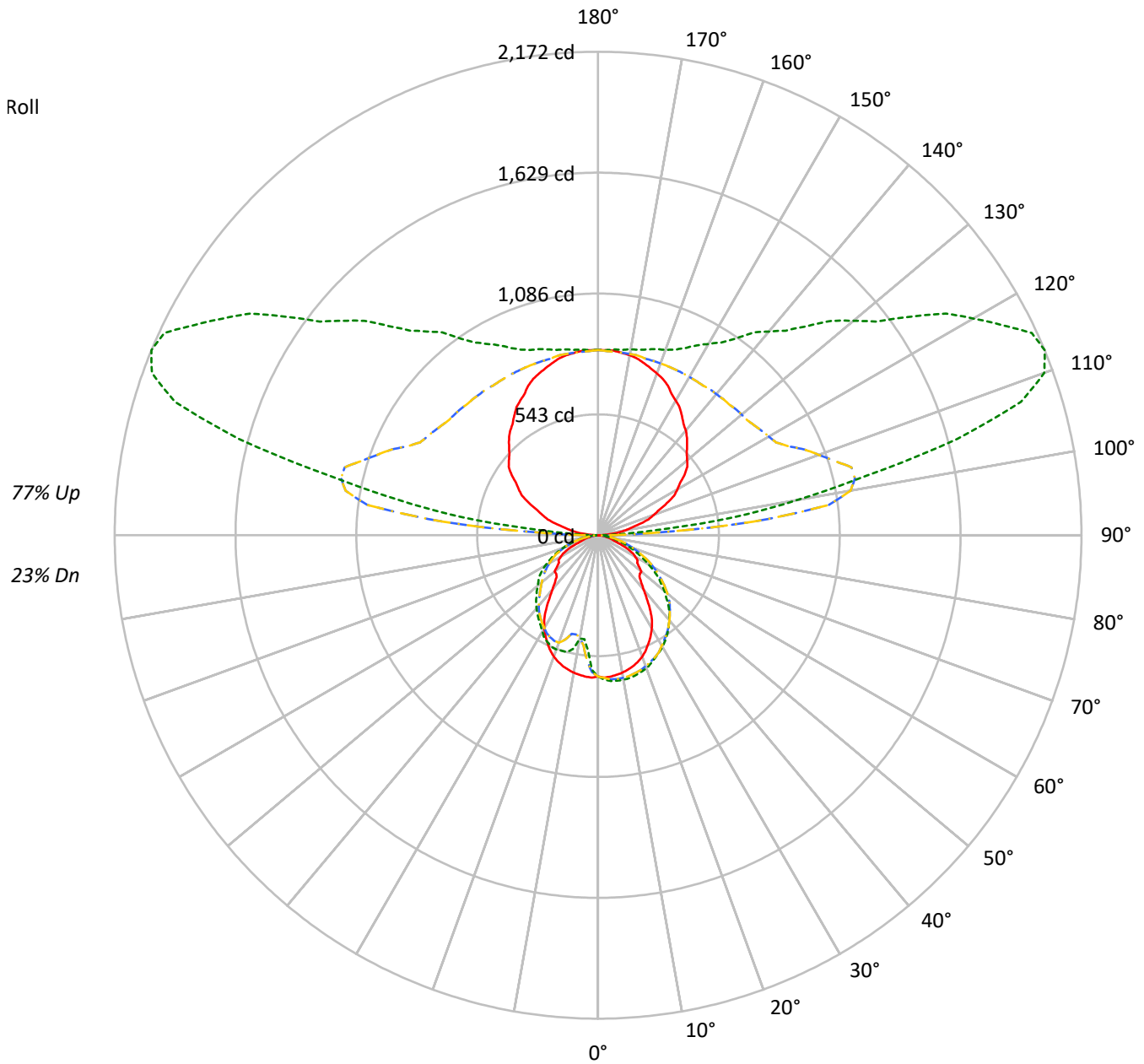
Test Method: LM-79-2019  
Report Number: P935858  
REPORT IS A COMBINATION OF REPORTS P933770 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FA-150U-050D-93050-1D-UNV-STD-W-4-3500K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Asymmetric Frosted Continuous I  
Lens  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7042.6 lumens  
Efficiency: N/A  
Efficacy: 126.7 lumens/watt  
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36  
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 4' x H: 0.1')  
CIE Type: Semi-Indirect  
  
Input Watts (W): 55.6  
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

TEST NUMBER: P935858  
CATALOG NUMBER: SQ4-FA-150U-050D-93050-1D-UNV-STD-W-4-3500K

### Luminous Intensity Polar Plot



— 0°-180°    - - 45°-225°    - - - 90°-270°    - · - 135°-315°



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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20	
RC	80				70				50				30				10	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	
RCR																		
0	101	101	101	101	90	90	90	90	69	69	69	49	49	49	32	32	32	23
1	92	88	84	81	81	78	75	72	60	58	56	43	42	41	28	27	27	20
2	84	77	71	66	74	68	63	59	52	49	46	38	36	34	25	24	23	17
3	76	67	60	55	67	60	54	49	46	42	39	34	31	29	22	20	19	14
4	70	59	52	46	62	53	47	42	41	37	33	30	27	25	19	18	16	12
5	64	53	45	39	56	47	40	36	36	32	28	27	24	21	17	16	14	10
6	59	47	39	34	52	42	35	31	33	28	24	24	21	18	16	14	12	9
7	54	42	35	29	48	38	31	27	30	25	21	22	19	16	14	12	11	8
8	50	38	31	26	44	34	28	23	27	22	19	20	17	14	13	11	10	7
9	46	35	28	23	41	31	25	21	24	20	17	18	15	13	12	10	9	6
10	43	32	25	20	38	28	22	18	22	18	15	17	14	11	11	9	8	6

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

	0°	90°	180°	270°
0°	5890	5890	5890	5890
5°	5926	5945	5926	4675
10°	5881	5856	5881	4187
15°	5810	5729	5810	4784
20°	5682	5579	5682	4794
25°	5427	5359	5427	4692
30°	5099	5177	5099	4470
35°	4539	4947	4539	4225
40°	3775	4677	3775	4039
45°	3367	4360	3367	3826
50°	3569	3981	3569	3612
55°	3347	3574	3347	3489
60°	3440	3035	3440	3195
65°	3103	2509	3103	2803
70°	2135	1999	2135	2352
75°	1850	1478	1850	1770
80°	1460	978	1460	1063
85°	795	517	795	440

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 20°  
 Vertical Angle: 45°  
 Luminance: 5170 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	57.3	0.8
10°-20°	162.7	2.3
20°-30°	251.4	3.6
30°-40°	300.2	4.3
40°-50°	301.9	4.3
50°-60°	262.7	3.7
60°-70°	186.3	2.6
70°-80°	98.5	1.4
80°-90°	27.7	0.4
90°-100°	405.6	5.8
100°-110°	1066.3	15.1
110°-120°	1105.6	15.7
120°-130°	886.8	12.6
130°-140°	695.8	9.9
140°-150°	534.1	7.6
150°-160°	384.6	5.5
160°-170°	235.3	3.3
170°-180°	79.5	1.1
0°-30°	471.4	6.7
0°-40°	771.6	11.0
0°-60°	1336.2	19.0
0°-90°	1648.8	23.4
90°-120°	2577.5	36.6
90°-150°	4694.3	66.7
90°-180°	5394.0	76.6
0°-180°	7042.6	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	635	635	635	635	635	
5°	638	658	638	517	638	60
15°	609	652	609	544	609	171
25°	536	608	536	532	536	246
35°	408	542	408	463	408	252
45°	263	447	263	392	263	211
55°	214	330	214	322	214	197
65°	149	199	149	222	149	142
75°	56	94	56	113	56	59
85°	10	24	10	20	10	13
90°	6	21	6	21	6	5
95°	54	245	54	245	54	60
105°	192	1670	192	1670	192	204
115°	341	2150	341	2150	341	337
125°	475	1712	475	1712	475	421
135°	566	1328	566	1328	566	438
145°	656	1078	656	1078	656	411
155°	742	928	742	928	742	341
165°	800	864	800	864	800	226
175°	832	838	832	838	832	79
180°	832	832	832	832	832	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	634.7	634.7	634.7	634.7	634.7	634.7	634.7	634.7	634.7	634.7	634.7
2.5°	640.1	640.1	643.6	644.9	644.9	643.1	641.3	643.1	648.5	650.3	649.6
5°	637.6	642.5	649.1	650.3	651.5	650.9	649.6	650.9	656.9	658.1	658.7
7.5°	632.9	641.8	650.3	652.1	653.8	652.1	651.5	652.7	658.7	659.8	659.8
10°	626.9	639.4	649.1	650.3	652.1	650.3	650.3	652.7	658.7	659.8	660.5
12.5°	618.5	635.9	644.9	646.1	648.5	647.8	647.3	649.6	655.7	656.9	656.9
15°	608.8	629.2	637.6	638.9	643.1	641.8	641.8	644.3	650.9	652.7	652.1
17.5°	595.7	620.9	630.5	632.3	635.3	634.7	635.3	637.6	643.6	644.9	645.5
20°	580.6	609.4	620.9	622.7	625.6	625.6	625.6	628.7	634.7	637.1	637.1
22.5°	560.2	597.4	609.4	610.7	614.3	614.3	615.4	619.6	625.0	625.6	625.6
25°	536.2	584.2	594.4	598.1	601.6	603.4	605.2	607.6	609.4	608.8	609.4
27.5°	511.0	567.4	580.6	583.0	587.9	589.7	592.1	592.6	593.2	595.0	593.9
30°	482.8	544.0	563.8	566.2	574.0	575.2	572.8	574.0	577.0	578.2	579.4
32.5°	451.0	509.2	546.4	551.8	559.0	555.5	554.8	556.6	561.5	561.5	562.6
35°	407.7	482.1	530.2	535.0	540.4	536.2	538.6	539.2	542.2	544.0	543.4
37.5°	360.3	458.8	513.4	517.0	521.2	515.8	519.4	521.2	523.6	522.4	522.4
40°	318.2	422.1	493.6	496.0	499.6	495.4	499.0	500.2	501.4	500.2	499.6
42.5°	287.0	381.9	472.5	475.6	473.2	476.1	477.4	479.8	477.9	475.6	475.6
45°	263.0	371.1	449.7	453.3	449.7	454.5	456.3	456.3	451.0	449.7	449.1
47.5°	255.2	349.4	426.9	426.9	425.1	431.1	434.1	429.9	424.6	422.7	422.7
50°	254.6	325.4	395.7	393.3	401.7	408.9	405.9	401.7	397.5	390.9	390.9
52.5°	231.2	296.0	355.4	364.5	377.6	381.9	377.1	372.9	365.6	362.7	360.3
55°	214.3	265.4	318.8	336.8	350.7	356.1	347.0	342.8	332.1	330.3	329.0
57.5°	210.8	221.0	285.2	308.0	324.8	324.3	318.8	311.0	302.0	300.2	299.7
60°	193.4	159.7	249.2	276.2	293.6	291.8	287.0	279.8	271.4	270.2	269.0
62.5°	175.3	115.9	208.3	239.0	263.6	263.0	258.8	248.0	242.0	239.0	236.5
65°	148.9	97.2	148.4	198.8	234.2	235.4	226.3	218.5	211.9	208.3	207.7
67.5°	113.5	79.2	100.3	165.7	205.9	204.8	193.4	189.7	181.3	179.5	175.9
70°	84.1	52.8	69.7	134.5	178.3	175.3	166.3	162.1	154.4	150.1	147.7
72.5°	69.7	42.6	51.0	104.5	150.1	146.5	138.7	133.9	127.3	123.7	121.3
75°	56.4	45.0	39.0	77.4	121.9	119.5	112.3	107.4	102.1	97.2	97.9
77.5°	41.5	42.0	31.2	57.0	96.7	93.1	88.9	82.9	80.5	75.7	75.7
80°	31.2	33.0	23.5	39.0	69.7	69.7	66.1	61.9	57.7	55.2	55.2
82.5°	21.0	21.0	17.4	24.6	47.5	45.7	43.2	42.0	39.7	38.4	38.4
85°	9.6	12.0	10.8	15.0	25.8	27.0	27.0	25.8	25.2	24.0	24.6
87.5°	3.0	5.4	6.6	8.4	13.3	13.8	14.4	14.4	14.4	15.0	15.0
90°	5.6	10.0	14.5	15.7	24.6	36.5	42.4	37.7	28.3	21.2	21.2
92.5°	22.3	60.3	98.3	107.8	151.5	209.8	239.0	209.4	150.4	106.1	101.9
95°	53.6	123.1	192.6	210.0	372.8	590.0	698.6	623.4	473.0	360.2	347.4
97.5°	92.7	154.0	215.3	230.6	502.2	864.3	1045.4	997.8	902.7	831.5	807.1
100°	122.8	178.4	234.0	247.9	549.3	951.1	1152.0	1155.5	1162.5	1167.7	1138.7
102.5°	148.5	200.5	252.3	265.3	570.9	978.4	1182.2	1242.7	1363.8	1454.7	1429.9
105°	192.1	236.1	280.0	291.0	586.9	981.4	1178.8	1314.5	1586.0	1789.7	1776.4
107.5°	236.8	277.7	318.7	328.9	589.9	937.8	1111.8	1301.2	1679.9	1964.0	1967.2
110°	266.9	303.9	340.9	350.2	585.4	899.1	1055.9	1267.7	1691.1	2008.6	2022.5



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	296.5	331.8	367.1	375.9	585.6	865.3	1005.2	1221.8	1655.2	1980.2	2001.5
115°	341.2	373.7	406.2	414.4	591.0	826.6	944.3	1153.0	1570.5	1883.6	1913.2
117.5°	385.3	414.9	444.4	451.8	602.0	802.3	902.4	1090.8	1467.5	1750.1	1782.9
120°	410.9	438.8	466.5	473.5	610.9	794.1	885.6	1057.7	1402.0	1660.2	1692.1
122.5°	436.1	464.1	492.2	499.2	623.8	789.8	872.8	1027.8	1337.8	1570.3	1601.7
125°	474.7	500.2	525.8	532.2	641.0	786.3	858.9	990.5	1253.8	1451.3	1480.3
127.5°	505.9	531.7	557.5	564.0	658.3	784.2	847.1	960.2	1186.3	1355.9	1380.3
130°	522.7	550.4	578.2	585.2	671.0	785.5	842.7	943.3	1144.6	1295.5	1318.1
132.5°	540.0	567.8	595.6	602.5	681.2	786.3	838.7	928.8	1109.0	1244.1	1264.4
135°	565.7	591.0	616.2	622.6	692.4	785.5	832.0	907.5	1058.3	1171.5	1189.0
137.5°	591.9	617.0	642.0	648.3	709.2	790.4	830.9	894.7	1022.3	1118.0	1132.2
140°	613.7	636.8	659.9	665.7	719.5	791.2	827.0	882.1	992.3	1074.9	1088.3
142.5°	630.5	651.8	673.1	678.5	728.0	794.0	827.0	875.4	972.2	1044.8	1056.3
145°	656.2	674.8	693.3	698.0	739.2	794.1	821.4	861.0	940.2	999.5	1008.2
147.5°	681.8	700.0	718.0	722.6	755.6	799.5	821.4	852.6	914.8	961.6	968.7
150°	698.6	715.0	731.3	735.4	764.1	802.3	821.4	847.8	900.3	939.8	945.6
152.5°	715.9	728.3	740.7	743.8	769.7	804.2	821.4	843.9	888.9	922.5	926.9
155°	741.6	750.8	759.9	762.3	782.0	808.3	821.4	839.4	875.1	901.8	904.8
157.5°	760.6	769.5	778.4	780.6	794.2	812.4	821.4	835.3	863.1	883.9	886.0
160°	773.4	780.4	787.3	789.0	799.9	814.3	821.4	833.4	857.2	875.0	876.2
162.5°	786.3	791.5	796.6	798.0	805.8	816.3	821.4	831.5	851.6	866.7	867.7
165°	800.2	804.9	809.6	810.8	814.4	819.1	821.4	828.6	843.0	853.8	854.9
167.5°	813.0	815.3	817.5	818.0	821.0	825.0	827.0	831.7	841.1	848.2	848.8
170°	821.4	823.7	825.9	826.5	826.6	826.9	827.0	831.7	841.1	848.2	848.2
172.5°	825.9	826.4	826.9	827.0	827.0	827.0	827.0	830.8	838.2	843.7	843.3
175°	832.0	832.0	832.0	832.0	830.3	828.1	827.0	829.3	834.1	837.7	837.7
177.5°	832.0	832.0	832.0	832.0	830.8	829.1	828.2	830.0	833.7	836.5	836.0
180°	832.0	832.0	832.0	832.0	832.0	832.0	832.0	832.0	832.0	832.0	832.0



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**CANDELA DISTRIBUTION (continued):**

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
0°	634.7	634.7	634.7	634.7	634.7	634.7	634.7	634.7	634.7	634.7	634.7
2.5°	650.9	649.1	650.9	649.6	650.3	648.5	643.1	641.3	643.1	644.9	644.9
5°	658.7	657.5	658.7	658.7	658.1	656.9	650.9	649.6	650.9	651.5	650.3
7.5°	661.1	659.3	661.1	659.8	659.8	658.7	652.7	651.5	652.1	653.8	652.1
10°	661.1	659.3	661.1	660.5	659.8	658.7	652.7	650.3	650.3	652.1	650.3
12.5°	658.1	656.9	658.1	656.9	656.9	655.7	649.6	647.3	647.8	648.5	646.1
15°	653.3	651.5	653.3	652.1	652.7	650.9	644.3	641.8	641.8	643.1	638.9
17.5°	646.1	643.6	646.1	645.5	644.9	643.6	637.6	635.3	634.7	635.3	632.3
20°	637.6	635.9	637.6	637.1	637.1	634.7	628.7	625.6	625.6	625.6	622.7
22.5°	624.5	622.7	624.5	625.6	625.6	625.0	619.6	615.4	614.3	614.3	610.7
25°	609.4	607.6	609.4	609.4	608.8	609.4	607.6	605.2	603.4	601.6	598.1
27.5°	595.0	593.9	595.0	593.9	595.0	593.2	592.6	592.1	589.7	587.9	583.0
30°	580.6	579.4	580.6	579.4	578.2	577.0	574.0	572.8	575.2	574.0	566.2
32.5°	562.6	561.5	562.6	562.6	561.5	561.5	556.6	554.8	555.5	559.0	551.8
35°	544.0	542.2	544.0	543.4	544.0	542.2	539.2	538.6	536.2	540.4	535.0
37.5°	522.4	520.6	522.4	522.4	522.4	523.6	521.2	519.4	515.8	521.2	517.0
40°	500.2	497.8	500.2	499.6	500.2	501.4	500.2	499.0	495.4	499.6	496.0
42.5°	475.0	474.3	475.0	475.6	475.6	477.9	479.8	477.4	476.1	473.2	475.6
45°	447.9	446.8	447.9	449.1	449.7	451.0	456.3	456.3	454.5	449.7	453.3
47.5°	419.1	416.1	419.1	422.7	422.7	424.6	429.9	434.1	431.1	425.1	426.9
50°	388.5	389.1	388.5	390.9	390.9	397.5	401.7	405.9	408.9	401.7	393.3
52.5°	358.5	357.9	358.5	360.3	362.7	365.6	372.9	377.1	381.9	377.6	364.5
55°	328.4	329.7	328.4	329.0	330.3	332.1	342.8	347.0	356.1	350.7	336.8
57.5°	298.4	296.6	298.4	299.7	300.2	302.0	311.0	318.8	324.3	324.8	308.0
60°	263.6	261.2	263.6	269.0	270.2	271.4	279.8	287.0	291.8	293.6	276.2
62.5°	233.0	228.8	233.0	236.5	239.0	242.0	248.0	258.8	263.0	263.6	239.0
65°	200.5	198.8	200.5	207.7	208.3	211.9	218.5	226.3	235.4	234.2	198.8
67.5°	171.1	171.1	171.1	175.9	179.5	181.3	189.7	193.4	204.8	205.9	165.7
70°	144.1	143.5	144.1	147.7	150.1	154.4	162.1	166.3	175.3	178.3	134.5
72.5°	118.3	117.6	118.3	121.3	123.7	127.3	133.9	138.7	146.5	150.1	104.5
75°	95.4	94.3	95.4	97.9	97.2	102.1	107.4	112.3	119.5	121.9	77.4
77.5°	73.2	73.2	73.2	75.7	75.7	80.5	82.9	88.9	93.1	96.7	57.0
80°	54.6	54.1	54.6	55.2	55.2	57.7	61.9	66.1	69.7	69.7	39.0
82.5°	38.4	37.2	38.4	38.4	38.4	39.7	42.0	43.2	45.7	47.5	24.6
85°	24.0	24.0	24.0	24.6	24.0	25.2	25.8	27.0	27.0	25.8	15.0
87.5°	15.6	15.0	15.6	15.0	15.0	14.4	14.4	14.4	13.8	13.3	8.4
90°	21.2	21.2	21.2	21.2	21.2	28.3	37.7	42.4	36.5	24.6	15.7
92.5°	85.0	68.1	85.0	101.9	106.1	150.4	209.4	239.0	209.8	151.5	107.8
95°	296.3	245.1	296.3	347.4	360.2	473.0	623.4	698.6	590.0	372.8	210.0
97.5°	709.9	612.6	709.9	807.1	831.5	902.7	997.8	1045.4	864.3	502.2	230.6
100°	1022.8	906.9	1022.8	1138.7	1167.7	1162.5	1155.5	1152.0	951.1	549.3	247.9
102.5°	1330.6	1231.3	1330.6	1429.9	1454.7	1363.8	1242.7	1182.2	978.4	570.9	265.3
105°	1723.0	1669.7	1723.0	1776.4	1789.7	1586.0	1314.5	1178.8	981.4	586.9	291.0
107.5°	1980.1	1993.0	1980.1	1967.2	1964.0	1679.9	1301.2	1111.8	937.8	589.9	328.9
110°	2078.1	2133.7	2078.1	2022.5	2008.6	1691.1	1267.7	1055.9	899.1	585.4	350.2





TEST NUMBER: P935858

CATALOG NUMBER: SQ4-FA-150U-050D-93050-1D-UNV-STD-W-4-3500K

**CANDELA DISTRIBUTION (continued):**

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
112.5°	2086.9	2172.2	2086.9	2001.5	1980.2	1655.2	1221.8	1005.2	865.3	585.6	375.9
115°	2031.6	2149.9	2031.6	1913.2	1883.6	1570.5	1153.0	944.3	826.6	591.0	414.4
117.5°	1914.2	2045.4	1914.2	1782.9	1750.1	1467.5	1090.8	902.4	802.3	602.0	451.8
120°	1819.6	1947.2	1819.6	1692.1	1660.2	1402.0	1057.7	885.6	794.1	610.9	473.5
122.5°	1727.6	1853.4	1727.6	1601.7	1570.3	1337.8	1027.8	872.8	789.8	623.8	499.2
125°	1596.2	1712.1	1596.2	1480.3	1451.3	1253.8	990.5	858.9	786.3	641.0	532.2
127.5°	1478.1	1575.8	1478.1	1380.3	1355.9	1186.3	960.2	847.1	784.2	658.3	564.0
130°	1408.4	1498.8	1408.4	1318.1	1295.5	1144.6	943.3	842.7	785.5	671.0	585.2
132.5°	1345.2	1426.1	1345.2	1264.4	1244.1	1109.0	928.8	838.7	786.3	681.2	602.5
135°	1258.7	1328.5	1258.7	1189.0	1171.5	1058.3	907.5	832.0	785.5	692.4	622.6
137.5°	1189.3	1246.4	1189.3	1132.2	1118.0	1022.3	894.7	830.9	790.4	709.2	648.3
140°	1141.6	1195.0	1141.6	1088.3	1074.9	992.3	882.1	827.0	791.2	719.5	665.7
142.5°	1102.2	1148.1	1102.2	1056.3	1044.8	972.2	875.4	827.0	794.0	728.0	678.5
145°	1043.0	1077.8	1043.0	1008.2	999.5	940.2	861.0	821.4	794.1	739.2	698.0
147.5°	997.6	1026.4	997.6	968.7	961.6	914.8	852.6	821.4	799.5	755.6	722.6
150°	969.0	992.3	969.0	945.6	939.8	900.3	847.8	821.4	802.3	764.1	735.4
152.5°	944.6	962.1	944.6	926.9	922.5	888.9	843.9	821.4	804.2	769.7	743.8
155°	916.4	928.1	916.4	904.8	901.8	875.1	839.4	821.4	808.3	782.0	762.3
157.5°	894.1	902.4	894.1	886.0	883.9	863.1	835.3	821.4	812.4	794.2	780.6
160°	880.9	885.6	880.9	876.2	875.0	857.2	833.4	821.4	814.3	799.9	789.0
162.5°	872.2	876.7	872.2	867.7	866.7	851.6	831.5	821.4	816.3	805.8	798.0
165°	859.7	864.4	859.7	854.9	853.8	843.0	828.6	821.4	819.1	814.4	810.8
167.5°	850.7	852.7	850.7	848.8	848.2	841.1	831.7	827.0	825.0	821.0	818.0
170°	848.2	848.2	848.2	848.2	848.2	841.1	831.7	827.0	826.9	826.6	826.5
172.5°	841.6	839.9	841.6	843.3	843.7	838.2	830.8	827.0	827.0	827.0	827.0
175°	837.7	837.7	837.7	837.7	837.7	834.1	829.3	827.0	828.1	830.3	832.0
177.5°	834.0	832.0	834.0	836.0	836.5	833.7	830.0	828.2	829.1	830.8	832.0
180°	832.0	832.0	832.0	832.0	832.0	832.0	832.0	832.0	832.0	832.0	832.0



TEST NUMBER: P935858

CATALOG NUMBER: SQ4-FA-150U-050D-93050-1D-UNV-STD-W-4-3500K

**CANDELA DISTRIBUTION (continued):**

	160°	170°	180°	190°	200°	202.5°	210°	220°	225°	230°	240°
0°	634.7	634.7	634.7	634.7	634.7	634.7	634.7	634.7	634.7	634.7	634.7
2.5°	643.6	640.1	640.1	634.1	631.6	629.9	626.9	617.9	615.4	613.0	616.7
5°	649.1	642.5	637.6	626.9	617.9	614.3	602.8	581.2	566.8	556.0	550.0
7.5°	650.3	641.8	632.9	616.1	594.4	584.8	550.0	510.4	499.6	490.0	483.9
10°	649.1	639.4	626.9	601.6	550.6	533.8	499.0	473.2	466.5	464.8	466.5
12.5°	644.9	635.9	618.5	576.4	505.0	493.6	473.2	458.1	457.0	459.9	476.1
15°	637.6	629.2	608.8	542.8	479.8	471.4	457.0	451.5	458.1	479.2	527.8
17.5°	630.5	620.9	595.7	509.8	460.5	454.5	444.3	455.2	492.3	520.6	536.8
20°	620.9	609.4	580.6	485.8	446.8	441.3	436.6	485.2	513.4	523.6	532.6
22.5°	609.4	597.4	560.2	469.0	432.3	428.1	431.1	502.0	513.4	520.6	528.4
25°	594.4	584.2	536.2	455.7	420.9	416.1	427.5	500.2	506.7	508.5	524.2
27.5°	580.6	567.4	511.0	443.7	407.1	405.3	430.6	492.3	497.2	499.0	515.8
30°	563.8	544.0	482.8	431.1	392.7	392.1	431.1	482.8	481.6	486.3	503.2
32.5°	546.4	509.2	451.0	415.5	378.9	378.3	426.9	468.3	467.2	473.7	486.3
35°	530.2	482.1	407.7	397.5	361.4	362.1	416.7	451.5	452.1	458.1	465.9
37.5°	513.4	458.8	360.3	377.6	344.7	344.7	402.9	435.9	434.8	436.6	447.3
40°	493.6	422.1	318.2	351.9	329.0	327.2	386.1	419.1	414.9	414.4	429.3
42.5°	472.5	381.9	287.0	317.7	311.0	308.6	365.6	398.7	390.9	392.7	411.9
45°	449.7	371.1	263.0	268.4	292.4	290.6	343.4	375.3	369.9	374.7	394.5
47.5°	426.9	349.4	255.2	222.8	272.6	272.0	318.8	352.5	349.4	354.3	375.3
50°	395.7	325.4	254.6	191.0	250.4	252.7	289.5	330.3	330.3	334.5	356.7
52.5°	355.4	296.0	231.2	172.9	224.5	231.8	263.6	311.0	312.2	316.4	336.3
55°	318.8	265.4	214.3	159.1	193.9	209.6	238.3	291.2	293.6	297.8	315.9
57.5°	285.2	221.0	210.8	142.9	165.7	180.8	216.1	272.0	273.2	276.8	294.2
60°	249.2	159.7	193.4	125.5	141.1	152.5	195.7	249.2	253.4	255.8	270.8
62.5°	208.3	115.9	175.3	113.5	129.1	131.5	179.0	227.6	233.0	234.8	243.8
65°	148.4	97.2	148.9	103.3	116.5	117.1	160.9	205.4	210.1	213.2	219.8
67.5°	100.3	79.2	113.5	93.6	106.9	107.4	143.5	179.5	186.1	188.6	192.8
70°	69.7	52.8	84.1	83.4	96.1	97.2	124.9	156.1	162.1	163.9	166.3
72.5°	51.0	42.6	69.7	75.0	84.7	85.9	105.6	129.7	135.7	137.5	138.7
75°	39.0	45.0	56.4	65.4	72.1	72.6	86.5	105.6	109.9	111.1	111.6
77.5°	31.2	42.0	41.5	52.8	58.8	57.7	67.9	81.7	85.2	85.2	85.2
80°	23.5	33.0	31.2	37.9	43.2	42.0	48.6	58.3	59.4	60.6	60.1
82.5°	17.4	21.0	21.0	24.0	28.8	27.7	32.4	37.9	37.9	37.9	39.0
85°	10.8	12.0	9.6	12.6	16.2	15.6	18.0	20.4	21.0	21.0	19.8
87.5°	6.6	5.4	3.0	4.8	7.2	7.2	8.4	9.0	8.4	8.4	8.4
90°	14.5	10.0	5.6	10.0	14.5	15.7	24.6	36.5	42.4	37.7	28.3
92.5°	98.3	60.3	22.3	60.3	98.3	107.8	151.5	209.8	239.0	209.4	150.4
95°	192.6	123.1	53.6	123.1	192.6	210.0	372.8	590.0	698.6	623.4	473.0
97.5°	215.3	154.0	92.7	154.0	215.3	230.6	502.2	864.3	1045.4	997.8	902.7
100°	234.0	178.4	122.8	178.4	234.0	247.9	549.3	951.1	1152.0	1155.5	1162.5
102.5°	252.3	200.5	148.5	200.5	252.3	265.3	570.9	978.4	1182.2	1242.7	1363.8
105°	280.0	236.1	192.1	236.1	280.0	291.0	586.9	981.4	1178.8	1314.5	1586.0
107.5°	318.7	277.7	236.8	277.7	318.7	328.9	589.9	937.8	1111.8	1301.2	1679.9
110°	340.9	303.9	266.9	303.9	340.9	350.2	585.4	899.1	1055.9	1267.7	1691.1



TEST NUMBER: P935858

CATALOG NUMBER: SQ4-FA-150U-050D-93050-1D-UNV-STD-W-4-3500K

**CANDELA DISTRIBUTION (continued):**

	160°	170°	180°	190°	200°	202.5°	210°	220°	225°	230°	240°
112.5°	367.1	331.8	296.5	331.8	367.1	375.9	585.6	865.3	1005.2	1221.8	1655.2
115°	406.2	373.7	341.2	373.7	406.2	414.4	591.0	826.6	944.3	1153.0	1570.5
117.5°	444.4	414.9	385.3	414.9	444.4	451.8	602.0	802.3	902.4	1090.8	1467.5
120°	466.5	438.8	410.9	438.8	466.5	473.5	610.9	794.1	885.6	1057.7	1402.0
122.5°	492.2	464.1	436.1	464.1	492.2	499.2	623.8	789.8	872.8	1027.8	1337.8
125°	525.8	500.2	474.7	500.2	525.8	532.2	641.0	786.3	858.9	990.5	1253.8
127.5°	557.5	531.7	505.9	531.7	557.5	564.0	658.3	784.2	847.1	960.2	1186.3
130°	578.2	550.4	522.7	550.4	578.2	585.2	671.0	785.5	842.7	943.3	1144.6
132.5°	595.6	567.8	540.0	567.8	595.6	602.5	681.2	786.3	838.7	928.8	1109.0
135°	616.2	591.0	565.7	591.0	616.2	622.6	692.4	785.5	832.0	907.5	1058.3
137.5°	642.0	617.0	591.9	617.0	642.0	648.3	709.2	790.4	830.9	894.7	1022.3
140°	659.9	636.8	613.7	636.8	659.9	665.7	719.5	791.2	827.0	882.1	992.3
142.5°	673.1	651.8	630.5	651.8	673.1	678.5	728.0	794.0	827.0	875.4	972.2
145°	693.3	674.8	656.2	674.8	693.3	698.0	739.2	794.1	821.4	861.0	940.2
147.5°	718.0	700.0	681.8	700.0	718.0	722.6	755.6	799.5	821.4	852.6	914.8
150°	731.3	715.0	698.6	715.0	731.3	735.4	764.1	802.3	821.4	847.8	900.3
152.5°	740.7	728.3	715.9	728.3	740.7	743.8	769.7	804.2	821.4	843.9	888.9
155°	759.9	750.8	741.6	750.8	759.9	762.3	782.0	808.3	821.4	839.4	875.1
157.5°	778.4	769.5	760.6	769.5	778.4	780.6	794.2	812.4	821.4	835.3	863.1
160°	787.3	780.4	773.4	780.4	787.3	789.0	799.9	814.3	821.4	833.4	857.2
162.5°	796.6	791.5	786.3	791.5	796.6	798.0	805.8	816.3	821.4	831.5	851.6
165°	809.6	804.9	800.2	804.9	809.6	810.8	814.4	819.1	821.4	828.6	843.0
167.5°	817.5	815.3	813.0	815.3	817.5	818.0	821.0	825.0	827.0	831.7	841.1
170°	825.9	823.7	821.4	823.7	825.9	826.5	826.6	826.9	827.0	831.7	841.1
172.5°	826.9	826.4	825.9	826.4	826.9	827.0	827.0	827.0	827.0	830.8	838.2
175°	832.0	832.0	832.0	832.0	832.0	832.0	830.3	828.1	827.0	829.3	834.1
177.5°	832.0	832.0	832.0	832.0	832.0	832.0	830.8	829.1	828.2	830.0	833.7
180°	832.0	832.0	832.0	832.0	832.0	832.0	832.0	832.0	832.0	832.0	832.0



TEST NUMBER: P935858

CATALOG NUMBER: SQ4-FA-150U-050D-93050-1D-UNV-STD-W-4-3500K

**CANDELA DISTRIBUTION (continued):**

	247.5°	250°	260°	270°	280°	290°	292.5°	300°	310°	315°	320°
0°	634.7	634.7	634.7	634.7	634.7	634.7	634.7	634.7	634.7	634.7	634.7
2.5°	612.5	610.7	613.0	606.5	613.0	610.7	612.5	616.7	613.0	615.4	617.9
5°	537.4	534.4	524.8	517.0	524.8	534.4	537.4	550.0	556.0	566.8	581.2
7.5°	480.3	477.9	475.6	470.8	475.6	477.9	480.3	483.9	490.0	499.6	510.4
10°	467.7	468.3	471.9	471.4	471.9	468.3	467.7	466.5	464.8	466.5	473.2
12.5°	500.2	505.6	525.4	524.2	525.4	505.6	500.2	476.1	459.9	457.0	458.1
15°	537.4	539.2	543.4	544.0	543.4	539.2	537.4	527.8	479.2	458.1	451.5
17.5°	541.0	541.6	544.6	544.6	544.6	541.6	541.0	536.8	520.6	492.3	455.2
20°	538.0	539.2	545.2	546.4	545.2	539.2	538.0	532.6	523.6	513.4	485.2
22.5°	536.8	539.2	544.0	543.4	544.0	539.2	536.8	528.4	520.6	513.4	502.0
25°	530.8	530.8	531.4	532.0	531.4	530.8	530.8	524.2	508.5	506.7	500.2
27.5°	518.2	519.4	523.0	522.4	523.0	519.4	518.2	515.8	499.0	497.2	492.3
30°	506.7	505.6	502.5	500.2	502.5	505.6	506.7	503.2	486.3	481.6	482.8
32.5°	487.6	484.5	481.6	479.8	481.6	484.5	487.6	486.3	473.7	467.2	468.3
35°	464.8	465.4	464.8	463.0	464.8	465.4	464.8	465.9	458.1	452.1	451.5
37.5°	448.6	449.7	449.1	446.8	449.1	449.7	448.6	447.3	436.6	434.8	435.9
40°	431.7	432.3	431.7	429.9	431.7	432.3	431.7	429.3	414.4	414.9	419.1
42.5°	415.5	414.9	413.1	411.9	413.1	414.9	415.5	411.9	392.7	390.9	398.7
45°	396.9	397.5	393.8	392.1	393.8	397.5	396.9	394.5	374.7	369.9	375.3
47.5°	378.3	378.3	375.3	373.4	375.3	378.3	378.3	375.3	354.3	349.4	352.5
50°	358.5	357.9	353.6	353.0	353.6	357.9	358.5	356.7	334.5	330.3	330.3
52.5°	335.7	335.7	336.3	337.4	336.3	335.7	335.7	336.3	316.4	312.2	311.0
55°	315.9	316.4	320.6	321.9	320.6	316.4	315.9	315.9	297.8	293.6	291.2
57.5°	295.5	295.5	298.4	298.4	298.4	295.5	295.5	294.2	276.8	273.2	272.0
60°	272.0	273.2	275.6	275.0	275.6	273.2	272.0	270.8	255.8	253.4	249.2
62.5°	247.4	248.6	249.2	248.0	249.2	248.6	247.4	243.8	234.8	233.0	227.6
65°	221.6	222.8	223.4	222.1	223.4	222.8	221.6	219.8	213.2	210.1	205.4
67.5°	195.2	194.6	193.9	196.3	193.9	194.6	195.2	192.8	188.6	186.1	179.5
70°	168.1	168.1	167.5	168.8	167.5	168.1	168.1	166.3	163.9	162.1	156.1
72.5°	139.3	138.7	141.1	139.3	141.1	138.7	139.3	138.7	137.5	135.7	129.7
75°	111.1	112.3	111.1	112.9	111.1	112.3	111.1	111.6	111.1	109.9	105.6
77.5°	84.7	85.9	84.7	84.7	84.7	85.9	84.7	85.2	85.2	85.2	81.7
80°	60.1	59.4	59.4	58.8	59.4	59.4	60.1	60.1	60.6	59.4	58.3
82.5°	38.4	37.9	37.9	39.0	37.9	37.9	38.4	39.0	37.9	37.9	37.9
85°	21.0	21.6	20.4	20.4	20.4	21.6	21.0	19.8	21.0	21.0	20.4
87.5°	7.8	7.2	7.2	7.2	7.2	7.2	7.8	8.4	8.4	8.4	9.0
90°	21.2	21.2	21.2	21.2	21.2	21.2	21.2	28.3	37.7	42.4	36.5
92.5°	106.1	101.9	85.0	68.1	85.0	101.9	106.1	150.4	209.4	239.0	209.8
95°	360.2	347.4	296.3	245.1	296.3	347.4	360.2	473.0	623.4	698.6	590.0
97.5°	831.5	807.1	709.9	612.6	709.9	807.1	831.5	902.7	997.8	1045.4	864.3
100°	1167.7	1138.7	1022.8	906.9	1022.8	1138.7	1167.7	1162.5	1155.5	1152.0	951.1
102.5°	1454.7	1429.9	1330.6	1231.3	1330.6	1429.9	1454.7	1363.8	1242.7	1182.2	978.4
105°	1789.7	1776.4	1723.0	1669.7	1723.0	1776.4	1789.7	1586.0	1314.5	1178.8	981.4
107.5°	1964.0	1967.2	1980.1	1993.0	1980.1	1967.2	1964.0	1679.9	1301.2	1111.8	937.8
110°	2008.6	2022.5	2078.1	2133.7	2078.1	2022.5	2008.6	1691.1	1267.7	1055.9	899.1



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**CANDELA DISTRIBUTION (continued):**

	247.5°	250°	260°	270°	280°	290°	292.5°	300°	310°	315°	320°
112.5°	1980.2	2001.5	2086.9	2172.2	2086.9	2001.5	1980.2	1655.2	1221.8	1005.2	865.3
115°	1883.6	1913.2	2031.6	2149.9	2031.6	1913.2	1883.6	1570.5	1153.0	944.3	826.6
117.5°	1750.1	1782.9	1914.2	2045.4	1914.2	1782.9	1750.1	1467.5	1090.8	902.4	802.3
120°	1660.2	1692.1	1819.6	1947.2	1819.6	1692.1	1660.2	1402.0	1057.7	885.6	794.1
122.5°	1570.3	1601.7	1727.6	1853.4	1727.6	1601.7	1570.3	1337.8	1027.8	872.8	789.8
125°	1451.3	1480.3	1596.2	1712.1	1596.2	1480.3	1451.3	1253.8	990.5	858.9	786.3
127.5°	1355.9	1380.3	1478.1	1575.8	1478.1	1380.3	1355.9	1186.3	960.2	847.1	784.2
130°	1295.5	1318.1	1408.4	1498.8	1408.4	1318.1	1295.5	1144.6	943.3	842.7	785.5
132.5°	1244.1	1264.4	1345.2	1426.1	1345.2	1264.4	1244.1	1109.0	928.8	838.7	786.3
135°	1171.5	1189.0	1258.7	1328.5	1258.7	1189.0	1171.5	1058.3	907.5	832.0	785.5
137.5°	1118.0	1132.2	1189.3	1246.4	1189.3	1132.2	1118.0	1022.3	894.7	830.9	790.4
140°	1074.9	1088.3	1141.6	1195.0	1141.6	1088.3	1074.9	992.3	882.1	827.0	791.2
142.5°	1044.8	1056.3	1102.2	1148.1	1102.2	1056.3	1044.8	972.2	875.4	827.0	794.0
145°	999.5	1008.2	1043.0	1077.8	1043.0	1008.2	999.5	940.2	861.0	821.4	794.1
147.5°	961.6	968.7	997.6	1026.4	997.6	968.7	961.6	914.8	852.6	821.4	799.5
150°	939.8	945.6	969.0	992.3	969.0	945.6	939.8	900.3	847.8	821.4	802.3
152.5°	922.5	926.9	944.6	962.1	944.6	926.9	922.5	888.9	843.9	821.4	804.2
155°	901.8	904.8	916.4	928.1	916.4	904.8	901.8	875.1	839.4	821.4	808.3
157.5°	883.9	886.0	894.1	902.4	894.1	886.0	883.9	863.1	835.3	821.4	812.4
160°	875.0	876.2	880.9	885.6	880.9	876.2	875.0	857.2	833.4	821.4	814.3
162.5°	866.7	867.7	872.2	876.7	872.2	867.7	866.7	851.6	831.5	821.4	816.3
165°	853.8	854.9	859.7	864.4	859.7	854.9	853.8	843.0	828.6	821.4	819.1
167.5°	848.2	848.8	850.7	852.7	850.7	848.8	848.2	841.1	831.7	827.0	825.0
170°	848.2	848.2	848.2	848.2	848.2	848.2	848.2	841.1	831.7	827.0	826.9
172.5°	843.7	843.3	841.6	839.9	841.6	843.3	843.7	838.2	830.8	827.0	827.0
175°	837.7	837.7	837.7	837.7	837.7	837.7	837.7	834.1	829.3	827.0	828.1
177.5°	836.5	836.0	834.0	832.0	834.0	836.0	836.5	833.7	830.0	828.2	829.1
180°	832.0	832.0	832.0	832.0	832.0	832.0	832.0	832.0	832.0	832.0	832.0



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**CANDELA DISTRIBUTION (continued):**

	330°	337.5°	340°	350°	360°
0°	634.7	634.7	634.7	634.7	634.7
2.5°	626.9	629.9	631.6	634.1	640.1
5°	602.8	614.3	617.9	626.9	637.6
7.5°	550.0	584.8	594.4	616.1	632.9
10°	499.0	533.8	550.6	601.6	626.9
12.5°	473.2	493.6	505.0	576.4	618.5
15°	457.0	471.4	479.8	542.8	608.8
17.5°	444.3	454.5	460.5	509.8	595.7
20°	436.6	441.3	446.8	485.8	580.6
22.5°	431.1	428.1	432.3	469.0	560.2
25°	427.5	416.1	420.9	455.7	536.2
27.5°	430.6	405.3	407.1	443.7	511.0
30°	431.1	392.1	392.7	431.1	482.8
32.5°	426.9	378.3	378.9	415.5	451.0
35°	416.7	362.1	361.4	397.5	407.7
37.5°	402.9	344.7	344.7	377.6	360.3
40°	386.1	327.2	329.0	351.9	318.2
42.5°	365.6	308.6	311.0	317.7	287.0
45°	343.4	290.6	292.4	268.4	263.0
47.5°	318.8	272.0	272.6	222.8	255.2
50°	289.5	252.7	250.4	191.0	254.6
52.5°	263.6	231.8	224.5	172.9	231.2
55°	238.3	209.6	193.9	159.1	214.3
57.5°	216.1	180.8	165.7	142.9	210.8
60°	195.7	152.5	141.1	125.5	193.4
62.5°	179.0	131.5	129.1	113.5	175.3
65°	160.9	117.1	116.5	103.3	148.9
67.5°	143.5	107.4	106.9	93.6	113.5
70°	124.9	97.2	96.1	83.4	84.1
72.5°	105.6	85.9	84.7	75.0	69.7
75°	86.5	72.6	72.1	65.4	56.4
77.5°	67.9	57.7	58.8	52.8	41.5
80°	48.6	42.0	43.2	37.9	31.2
82.5°	32.4	27.7	28.8	24.0	21.0
85°	18.0	15.6	16.2	12.6	9.6
87.5°	8.4	7.2	7.2	4.8	3.0
90°	24.6	15.7	14.5	10.0	5.6
92.5°	151.5	107.8	98.3	60.3	22.3
95°	372.8	210.0	192.6	123.1	53.6
97.5°	502.2	230.6	215.3	154.0	92.7
100°	549.3	247.9	234.0	178.4	122.8
102.5°	570.9	265.3	252.3	200.5	148.5
105°	586.9	291.0	280.0	236.1	192.1
107.5°	589.9	328.9	318.7	277.7	236.8
110°	585.4	350.2	340.9	303.9	266.9



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CATALOG NUMBER: SQ4-FA-150U-050D-93050-1D-UNV-STD-W-4-3500K

**CANDELA DISTRIBUTION (continued):**

	330°	337.5°	340°	350°	360°
112.5°	585.6	375.9	367.1	331.8	296.5
115°	591.0	414.4	406.2	373.7	341.2
117.5°	602.0	451.8	444.4	414.9	385.3
120°	610.9	473.5	466.5	438.8	410.9
122.5°	623.8	499.2	492.2	464.1	436.1
125°	641.0	532.2	525.8	500.2	474.7
127.5°	658.3	564.0	557.5	531.7	505.9
130°	671.0	585.2	578.2	550.4	522.7
132.5°	681.2	602.5	595.6	567.8	540.0
135°	692.4	622.6	616.2	591.0	565.7
137.5°	709.2	648.3	642.0	617.0	591.9
140°	719.5	665.7	659.9	636.8	613.7
142.5°	728.0	678.5	673.1	651.8	630.5
145°	739.2	698.0	693.3	674.8	656.2
147.5°	755.6	722.6	718.0	700.0	681.8
150°	764.1	735.4	731.3	715.0	698.6
152.5°	769.7	743.8	740.7	728.3	715.9
155°	782.0	762.3	759.9	750.8	741.6
157.5°	794.2	780.6	778.4	769.5	760.6
160°	799.9	789.0	787.3	780.4	773.4
162.5°	805.8	798.0	796.6	791.5	786.3
165°	814.4	810.8	809.6	804.9	800.2
167.5°	821.0	818.0	817.5	815.3	813.0
170°	826.6	826.5	825.9	823.7	821.4
172.5°	827.0	827.0	826.9	826.4	825.9
175°	830.3	832.0	832.0	832.0	832.0
177.5°	830.8	832.0	832.0	832.0	832.0
180°	832.0	832.0	832.0	832.0	832.0



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**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	7.74	8.41	8.90	9.55	11.16	10.54	11.21	11.70	12.35	13.96
	3H	8.21	8.80	9.37	9.95	11.57	11.86	12.46	13.03	13.61	15.23
	4H	8.39	8.95	9.56	10.10	11.73	12.29	12.86	13.46	14.01	15.63
	6H	8.50	9.02	9.68	10.17	11.81	12.56	13.08	13.74	14.23	15.87
	8H	8.49	8.99	9.67	10.15	11.78	12.62	13.12	13.80	14.28	15.91
	12H	8.46	8.92	9.64	10.09	11.74	12.65	13.12	13.83	14.28	15.93
4H	2H	8.74	9.31	9.92	10.46	12.09	10.93	11.49	12.11	12.64	14.27
	3H	9.75	10.22	10.94	11.40	13.04	12.41	12.88	13.59	14.05	15.69
	4H	10.02	10.45	11.20	11.62	13.27	12.92	13.35	14.10	14.52	16.17
	6H	10.13	10.50	11.32	11.69	13.34	13.26	13.63	14.45	14.82	16.47
	8H	10.13	10.48	11.32	11.66	13.32	13.36	13.71	14.55	14.89	16.55
	12H	10.09	10.41	11.30	11.59	13.26	13.40	13.72	14.61	14.91	16.57
8H	4H	10.45	10.80	11.64	11.98	13.64	13.03	13.37	14.22	14.55	16.21
	6H	10.70	10.99	11.91	12.21	13.87	13.45	13.73	14.66	14.95	16.61
	8H	10.75	10.99	11.96	12.19	13.87	13.59	13.84	14.81	15.04	16.72
	12H	10.72	10.94	11.94	12.13	13.84	13.68	13.89	14.89	15.09	16.80
12H	4H	10.45	10.76	11.65	11.95	13.62	12.98	13.30	14.19	14.49	16.15
	6H	10.76	11.01	11.98	12.21	13.89	13.44	13.69	14.66	14.89	16.57
	8H	10.82	11.04	12.04	12.23	13.94	13.59	13.81	14.81	15.00	16.71