

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: P935835

Luminaire Tested: SQ4-FA-150U-050D-92765-1D-UNV-STD-W-4-5000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P935835
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-92765-1D-UNV-STD-W-4-5000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Asymmetric Frosted Continuous I
Lens
Light Source: -
Ballast/Driver: -

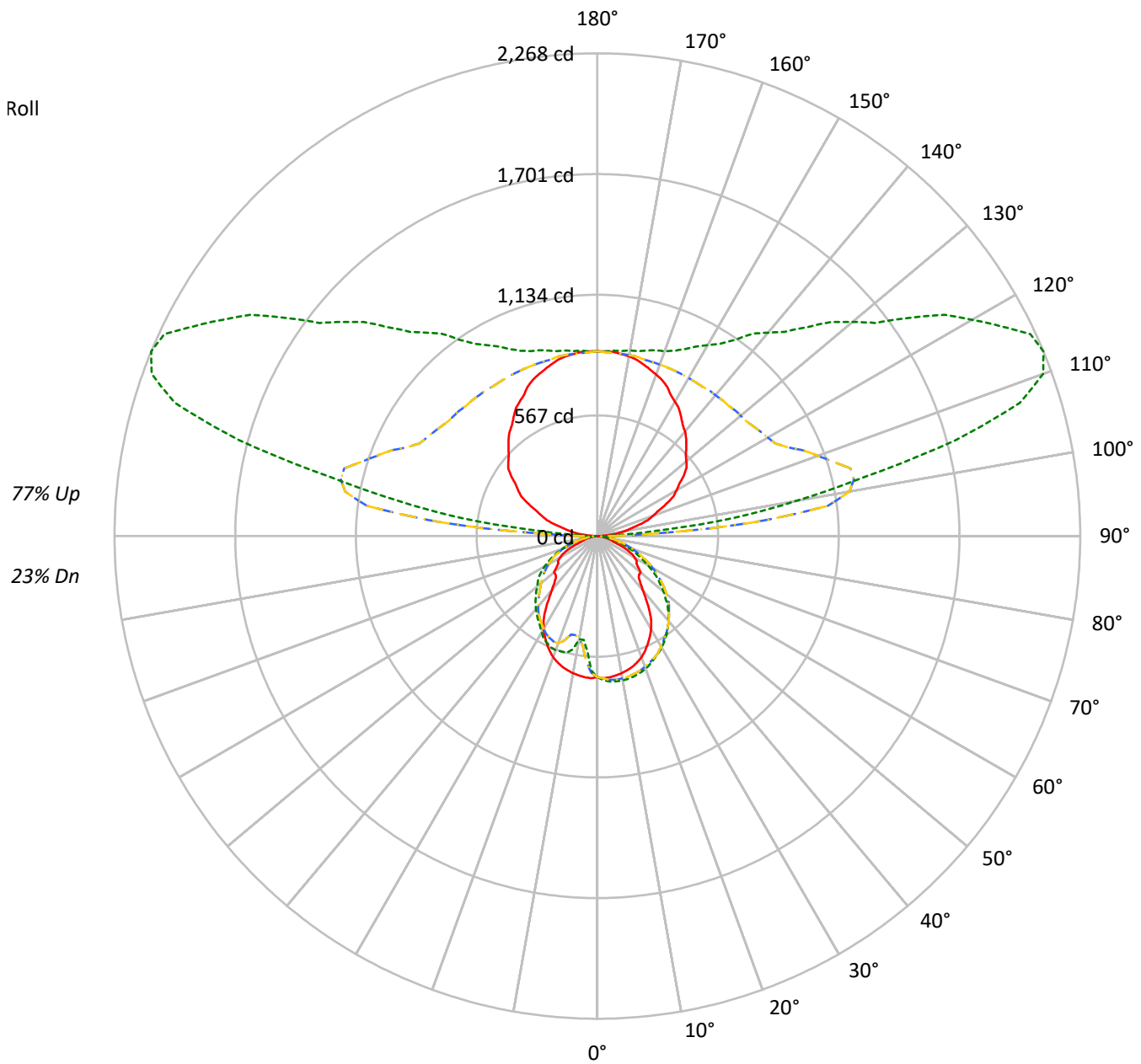
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7352.4 lumens
Efficiency: N/A
Efficacy: 132.2 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: P935835
CATALOG NUMBER: SQ4-FA-150U-050D-92765-1D-UNV-STD-W-4-5000K

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	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
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°	6148	6148	6148	6148
5°	6187	6206	6187	4880
10°	6140	6114	6140	4371
15°	6065	5982	6065	4994
20°	5932	5824	5932	5005
25°	5665	5596	5665	4899
30°	5323	5405	5323	4666
35°	4739	5165	4739	4410
40°	3941	4882	3941	4216
45°	3514	4551	3514	3994
50°	3726	4156	3726	3771
55°	3496	3731	3496	3642
60°	3591	3168	3591	3336
65°	3238	2619	3238	2927
70°	2229	2087	2229	2455
75°	1931	1543	1931	1848
80°	1526	1022	1526	1110
85°	828	541	828	459

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 20°
 Vertical Angle: 45°
 Luminance: 5398 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.8	0.8
10°-20°	169.8	2.3
20°-30°	262.5	3.6
30°-40°	313.4	4.3
40°-50°	315.2	4.3
50°-60°	274.3	3.7
60°-70°	194.5	2.6
70°-80°	102.9	1.4
80°-90°	28.9	0.4
90°-100°	423.4	5.8
100°-110°	1113.2	15.1
110°-120°	1154.3	15.7
120°-130°	925.9	12.6
130°-140°	726.5	9.9
140°-150°	557.6	7.6
150°-160°	401.6	5.5
160°-170°	245.7	3.3
170°-180°	83.0	1.1
0°-30°	492.1	6.7
0°-40°	805.5	11.0
0°-60°	1395.0	19.0
0°-90°	1721.3	23.4
90°-120°	2690.9	36.6
90°-150°	4900.8	66.7
90°-180°	5631.0	76.6
0°-180°	7352.4	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	663	663	663	663	663	
5°	666	686	666	540	666	63
15°	636	680	636	568	636	179
25°	560	634	560	555	560	257
35°	426	566	426	483	426	263
45°	274	466	274	409	274	220
55°	224	344	224	336	224	206
65°	155	208	155	232	155	149
75°	59	98	59	118	59	62
85°	10	25	10	21	10	14
90°	6	22	6	22	6	5
95°	56	256	56	256	56	62
105°	201	1743	201	1743	201	213
115°	356	2244	356	2244	356	352
125°	496	1787	496	1787	496	440
135°	590	1387	590	1387	590	457
145°	685	1125	685	1125	685	429
155°	774	969	774	969	774	356
165°	835	902	835	902	835	236
175°	869	874	869	874	869	82
180°	869	869	869	869	869	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	662.6	662.6	662.6	662.6	662.6	662.6	662.6	662.6	662.6	662.6	662.6
2.5°	668.2	668.2	672.0	673.3	673.3	671.4	669.5	671.4	677.0	678.9	678.2
5°	665.7	670.7	677.7	678.9	680.2	679.5	678.2	679.5	685.8	687.0	687.7
7.5°	660.7	670.1	678.9	680.7	682.6	680.7	680.2	681.4	687.7	688.9	688.9
10°	654.5	667.6	677.7	678.9	680.7	678.9	678.9	681.4	687.7	688.9	689.5
12.5°	645.7	663.8	673.3	674.5	677.0	676.4	675.8	678.2	684.6	685.8	685.8
15°	635.6	656.9	665.7	667.0	671.4	670.1	670.1	672.6	679.5	681.4	680.7
17.5°	621.9	648.2	658.2	660.1	663.3	662.6	663.3	665.7	672.0	673.3	673.9
20°	606.2	636.3	648.2	650.1	653.2	653.2	653.2	656.4	662.6	665.1	665.1
22.5°	584.8	623.7	636.3	637.6	641.3	641.3	642.5	646.9	652.5	653.2	653.2
25°	559.8	609.9	620.6	624.4	628.1	630.0	631.9	634.4	636.3	635.6	636.3
27.5°	533.4	592.4	606.2	608.7	613.7	615.6	618.1	618.7	619.3	621.2	620.0
30°	504.0	567.9	588.6	591.1	599.2	600.5	598.0	599.2	602.4	603.6	604.9
32.5°	470.8	531.6	570.5	576.1	583.6	579.9	579.2	581.1	586.2	586.2	587.4
35°	425.7	503.3	553.5	558.6	564.2	559.8	562.3	562.9	566.1	567.9	567.3
37.5°	376.1	478.9	536.0	539.7	544.1	538.5	542.2	544.1	546.6	545.4	545.4
40°	332.2	440.7	515.3	517.8	521.6	517.2	520.9	522.2	523.4	522.2	521.6
42.5°	299.7	398.7	493.3	496.5	494.0	497.1	498.4	500.9	498.9	496.5	496.5
45°	274.5	387.4	469.5	473.2	469.5	474.6	476.4	476.4	470.8	469.5	468.8
47.5°	266.4	364.8	445.7	445.7	443.8	450.1	453.2	448.8	443.2	441.3	441.3
50°	265.8	339.8	413.1	410.6	419.4	426.9	423.8	419.4	415.0	408.1	408.1
52.5°	241.3	309.0	371.1	380.5	394.3	398.7	393.7	389.3	381.7	378.6	376.1
55°	223.8	277.0	332.8	351.6	366.1	371.7	362.3	357.9	346.7	344.8	343.5
57.5°	220.0	230.7	297.8	321.5	339.1	338.6	332.8	324.7	315.3	313.4	312.8
60°	201.9	166.8	260.1	288.4	306.5	304.6	299.7	292.1	283.3	282.1	280.9
62.5°	183.0	121.0	217.5	249.5	275.2	274.5	270.2	258.9	252.7	249.5	246.9
65°	155.4	101.5	154.9	207.5	244.5	245.7	236.3	228.2	221.2	217.5	216.9
67.5°	118.5	82.7	104.7	173.0	215.0	213.8	201.9	198.1	189.3	187.4	183.7
70°	87.8	55.1	72.7	140.4	186.2	183.0	173.7	169.3	161.1	156.8	154.2
72.5°	72.7	44.5	53.3	109.1	156.8	152.9	144.8	139.8	132.9	129.2	126.7
75°	58.9	47.0	40.8	80.9	127.2	124.8	117.2	112.2	106.6	101.5	102.2
77.5°	43.3	43.8	32.6	59.5	100.9	97.2	92.8	86.6	84.0	79.0	79.0
80°	32.6	34.5	24.5	40.8	72.7	72.7	69.0	64.6	60.2	57.7	57.7
82.5°	22.0	22.0	18.1	25.7	49.5	47.7	45.1	43.8	41.4	40.1	40.1
85°	10.0	12.5	11.3	15.7	26.9	28.2	28.2	26.9	26.4	25.1	25.7
87.5°	3.2	5.6	6.9	8.8	13.8	14.4	15.0	15.0	15.0	15.7	15.7
90°	5.8	10.5	15.1	16.4	25.7	38.1	44.3	39.4	29.5	22.2	22.2
92.5°	23.3	62.9	102.6	112.5	158.2	219.0	249.5	218.6	157.0	110.8	106.4
95°	56.0	128.5	201.1	219.2	389.2	616.0	729.4	650.8	493.8	376.0	362.7
97.5°	96.7	160.8	224.8	240.8	524.3	902.4	1091.4	1041.7	942.5	868.1	842.6
100°	128.2	186.3	244.3	258.8	573.4	992.9	1202.7	1206.3	1213.6	1219.0	1188.8
102.5°	155.1	209.3	263.4	277.0	596.1	1021.4	1234.2	1297.4	1423.8	1518.7	1492.8
105°	200.6	246.5	292.3	303.8	612.7	1024.6	1230.6	1372.3	1655.8	1868.5	1854.6
107.5°	247.2	289.9	332.8	343.4	615.9	979.1	1160.7	1358.4	1753.8	2050.4	2053.7
110°	278.6	317.2	355.9	365.6	611.2	938.6	1102.4	1323.5	1765.5	2097.0	2111.5



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	309.6	346.4	383.2	392.4	611.4	903.4	1049.4	1275.6	1728.0	2067.3	2089.5
115°	356.2	390.1	424.1	432.6	617.0	862.9	985.8	1203.7	1639.6	1966.4	1997.4
117.5°	402.3	433.1	464.0	471.7	628.5	837.6	942.1	1138.8	1532.1	1827.1	1861.4
120°	429.0	458.1	487.1	494.4	637.7	829.0	924.6	1104.3	1463.7	1733.2	1766.5
122.5°	455.3	484.6	513.9	521.2	651.2	824.6	911.2	1073.0	1396.6	1639.4	1672.2
125°	495.6	522.2	549.0	555.6	669.2	820.9	896.7	1034.1	1309.0	1515.2	1545.4
127.5°	528.2	555.1	582.0	588.8	687.3	818.7	884.4	1002.5	1238.5	1415.5	1441.0
130°	545.7	574.7	603.6	610.9	700.6	820.0	879.7	984.8	1194.9	1352.5	1376.1
132.5°	563.7	592.8	621.8	629.1	711.2	820.9	875.6	969.7	1157.8	1298.9	1320.0
135°	590.5	617.0	643.4	650.0	722.9	820.0	868.6	947.4	1104.9	1223.1	1241.3
137.5°	617.9	644.1	670.3	676.8	740.4	825.2	867.5	934.1	1067.2	1167.2	1182.0
140°	640.7	664.9	689.0	695.0	751.1	826.0	863.4	920.9	1035.9	1122.2	1136.1
142.5°	658.2	680.5	702.7	708.3	760.0	828.9	863.4	914.0	1015.0	1090.8	1102.8
145°	685.0	704.5	723.8	728.7	771.7	829.0	857.6	898.9	981.5	1043.5	1052.6
147.5°	711.8	730.8	749.6	754.4	788.8	834.7	857.6	890.1	955.1	1003.9	1011.4
150°	729.4	746.5	763.5	767.8	797.7	837.6	857.6	885.1	939.9	981.2	987.2
152.5°	747.4	760.4	773.3	776.6	803.6	839.6	857.6	881.1	928.0	963.1	967.7
155°	774.2	783.8	793.4	795.8	816.4	843.9	857.6	876.3	913.6	941.5	944.6
157.5°	794.0	803.4	812.6	815.0	829.2	848.2	857.6	872.1	901.1	922.8	925.0
160°	807.4	814.7	822.0	823.8	835.1	850.1	857.6	870.0	894.9	913.5	914.7
162.5°	820.9	826.3	831.7	833.1	841.2	852.2	857.6	868.1	889.1	904.8	905.9
165°	835.4	840.3	845.3	846.5	850.2	855.2	857.6	865.1	880.1	891.3	892.6
167.5°	848.8	851.1	853.5	854.0	857.1	861.3	863.4	868.3	878.2	885.5	886.1
170°	857.6	859.9	862.3	862.8	863.0	863.3	863.4	868.3	878.2	885.5	885.5
172.5°	862.3	862.7	863.3	863.4	863.4	863.4	863.4	867.3	875.1	880.9	880.4
175°	868.6	868.6	868.6	868.6	866.8	864.5	863.4	865.8	870.8	874.5	874.5
177.5°	868.6	868.6	868.6	868.6	867.3	865.5	864.6	866.6	870.4	873.3	872.7
180°	868.6	868.6	868.6	868.6	868.6	868.6	868.6	868.6	868.6	868.6	868.6



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CANDELA DISTRIBUTION (continued):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
0°	662.6	662.6	662.6	662.6	662.6	662.6	662.6	662.6	662.6	662.6	662.6
2.5°	679.5	677.7	679.5	678.2	678.9	677.0	671.4	669.5	671.4	673.3	673.3
5°	687.7	686.4	687.7	687.7	687.0	685.8	679.5	678.2	679.5	680.2	678.9
7.5°	690.2	688.3	690.2	688.9	688.9	687.7	681.4	680.2	680.7	682.6	680.7
10°	690.2	688.3	690.2	689.5	688.9	687.7	681.4	678.9	678.9	680.7	678.9
12.5°	687.0	685.8	687.0	685.8	685.8	684.6	678.2	675.8	676.4	677.0	674.5
15°	682.1	680.2	682.1	680.7	681.4	679.5	672.6	670.1	670.1	671.4	667.0
17.5°	674.5	672.0	674.5	673.9	673.3	672.0	665.7	663.3	662.6	663.3	660.1
20°	665.7	663.8	665.7	665.1	665.1	662.6	656.4	653.2	653.2	653.2	650.1
22.5°	652.0	650.1	652.0	653.2	653.2	652.5	646.9	642.5	641.3	641.3	637.6
25°	636.3	634.4	636.3	636.3	635.6	636.3	634.4	631.9	630.0	628.1	624.4
27.5°	621.2	620.0	621.2	620.0	621.2	619.3	618.7	618.1	615.6	613.7	608.7
30°	606.2	604.9	606.2	604.9	603.6	602.4	599.2	598.0	600.5	599.2	591.1
32.5°	587.4	586.2	587.4	587.4	586.2	586.2	581.1	579.2	579.9	583.6	576.1
35°	567.9	566.1	567.9	567.3	567.9	566.1	562.9	562.3	559.8	564.2	558.6
37.5°	545.4	543.5	545.4	545.4	545.4	546.6	544.1	542.2	538.5	544.1	539.7
40°	522.2	519.7	522.2	521.6	522.2	523.4	522.2	520.9	517.2	521.6	517.8
42.5°	495.9	495.2	495.9	496.5	496.5	498.9	500.9	498.4	497.1	494.0	496.5
45°	467.6	466.4	467.6	468.8	469.5	470.8	476.4	476.4	474.6	469.5	473.2
47.5°	437.5	434.5	437.5	441.3	441.3	443.2	448.8	453.2	450.1	443.8	445.7
50°	405.6	406.2	405.6	408.1	408.1	415.0	419.4	423.8	426.9	419.4	410.6
52.5°	374.3	373.6	374.3	376.1	378.6	381.7	389.3	393.7	398.7	394.3	380.5
55°	342.9	344.2	342.9	343.5	344.8	346.7	357.9	362.3	371.7	366.1	351.6
57.5°	311.5	309.7	311.5	312.8	313.4	315.3	324.7	332.8	338.6	339.1	321.5
60°	275.2	272.7	275.2	280.9	282.1	283.3	292.1	299.7	304.6	306.5	288.4
62.5°	243.2	238.8	243.2	246.9	249.5	252.7	258.9	270.2	274.5	275.2	249.5
65°	209.4	207.5	209.4	216.9	217.5	221.2	228.2	236.3	245.7	244.5	207.5
67.5°	178.6	178.6	178.6	183.7	187.4	189.3	198.1	201.9	213.8	215.0	173.0
70°	150.5	149.8	150.5	154.2	156.8	161.1	169.3	173.7	183.0	186.2	140.4
72.5°	123.5	122.8	123.5	126.7	129.2	132.9	139.8	144.8	152.9	156.8	109.1
75°	99.6	98.4	99.6	102.2	101.5	106.6	112.2	117.2	124.8	127.2	80.9
77.5°	76.5	76.5	76.5	79.0	79.0	84.0	86.6	92.8	97.2	100.9	59.5
80°	57.0	56.5	57.0	57.7	57.7	60.2	64.6	69.0	72.7	72.7	40.8
82.5°	40.1	38.9	40.1	40.1	40.1	41.4	43.8	45.1	47.7	49.5	25.7
85°	25.1	25.1	25.1	25.7	25.1	26.4	26.9	28.2	28.2	26.9	15.7
87.5°	16.3	15.7	16.3	15.7	15.7	15.0	15.0	15.0	14.4	13.8	8.8
90°	22.2	22.2	22.2	22.2	22.2	29.5	39.4	44.3	38.1	25.7	16.4
92.5°	88.7	71.1	88.7	106.4	110.8	157.0	218.6	249.5	219.0	158.2	112.5
95°	309.3	255.9	309.3	362.7	376.0	493.8	650.8	729.4	616.0	389.2	219.2
97.5°	741.1	639.5	741.1	842.6	868.1	942.5	1041.7	1091.4	902.4	524.3	240.8
100°	1067.8	946.8	1067.8	1188.8	1219.0	1213.6	1206.3	1202.7	992.9	573.4	258.8
102.5°	1389.2	1285.5	1389.2	1492.8	1518.7	1423.8	1297.4	1234.2	1021.4	596.1	277.0
105°	1798.8	1743.1	1798.8	1854.6	1868.5	1655.8	1372.3	1230.6	1024.6	612.7	303.8
107.5°	2067.2	2080.7	2067.2	2053.7	2050.4	1753.8	1358.4	1160.7	979.1	615.9	343.4
110°	2169.5	2227.6	2169.5	2111.5	2097.0	1765.5	1323.5	1102.4	938.6	611.2	365.6



TEST NUMBER: P935835

CATALOG NUMBER: SQ4-FA-150U-050D-92765-1D-UNV-STD-W-4-5000K

CANDELA DISTRIBUTION (continued):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
112.5°	2178.7	2267.8	2178.7	2089.5	2067.3	1728.0	1275.6	1049.4	903.4	611.4	392.4
115°	2120.9	2244.5	2120.9	1997.4	1966.4	1639.6	1203.7	985.8	862.9	617.0	432.6
117.5°	1998.4	2135.4	1998.4	1861.4	1827.1	1532.1	1138.8	942.1	837.6	628.5	471.7
120°	1899.7	2032.9	1899.7	1766.5	1733.2	1463.7	1104.3	924.6	829.0	637.7	494.4
122.5°	1803.6	1934.9	1803.6	1672.2	1639.4	1396.6	1073.0	911.2	824.6	651.2	521.2
125°	1666.4	1787.4	1666.4	1545.4	1515.2	1309.0	1034.1	896.7	820.9	669.2	555.6
127.5°	1543.1	1645.2	1543.1	1441.0	1415.5	1238.5	1002.5	884.4	818.7	687.3	588.8
130°	1470.4	1564.7	1470.4	1376.1	1352.5	1194.9	984.8	879.7	820.0	700.6	610.9
132.5°	1404.4	1488.9	1404.4	1320.0	1298.9	1157.8	969.7	875.6	820.9	711.2	629.1
135°	1314.1	1386.9	1314.1	1241.3	1223.1	1104.9	947.4	868.6	820.0	722.9	650.0
137.5°	1241.7	1301.2	1241.7	1182.0	1167.2	1067.2	934.1	867.5	825.2	740.4	676.8
140°	1191.8	1247.6	1191.8	1136.1	1122.2	1035.9	920.9	863.4	826.0	751.1	695.0
142.5°	1150.7	1198.6	1150.7	1102.8	1090.8	1015.0	914.0	863.4	828.9	760.0	708.3
145°	1088.9	1125.2	1088.9	1052.6	1043.5	981.5	898.9	857.6	829.0	771.7	728.7
147.5°	1041.4	1071.5	1041.4	1011.4	1003.9	955.1	890.1	857.6	834.7	788.8	754.4
150°	1011.6	1035.9	1011.6	987.2	981.2	939.9	885.1	857.6	837.6	797.7	767.8
152.5°	986.1	1004.4	986.1	967.7	963.1	928.0	881.1	857.6	839.6	803.6	776.6
155°	956.8	968.9	956.8	944.6	941.5	913.6	876.3	857.6	843.9	816.4	795.8
157.5°	933.5	942.1	933.5	925.0	922.8	901.1	872.1	857.6	848.2	829.2	815.0
160°	919.7	924.6	919.7	914.7	913.5	894.9	870.0	857.6	850.1	835.1	823.8
162.5°	910.6	915.3	910.6	905.9	904.8	889.1	868.1	857.6	852.2	841.2	833.1
165°	897.5	902.5	897.5	892.6	891.3	880.1	865.1	857.6	855.2	850.2	846.5
167.5°	888.2	890.2	888.2	886.1	885.5	878.2	868.3	863.4	861.3	857.1	854.0
170°	885.5	885.5	885.5	885.5	885.5	878.2	868.3	863.4	863.3	863.0	862.8
172.5°	878.6	876.8	878.6	880.4	880.9	875.1	867.3	863.4	863.4	863.4	863.4
175°	874.5	874.5	874.5	874.5	874.5	870.8	865.8	863.4	864.5	866.8	868.6
177.5°	870.7	868.6	870.7	872.7	873.3	870.4	866.6	864.6	865.5	867.3	868.6
180°	868.6	868.6	868.6	868.6	868.6	868.6	868.6	868.6	868.6	868.6	868.6



TEST NUMBER: P935835

CATALOG NUMBER: SQ4-FA-150U-050D-92765-1D-UNV-STD-W-4-5000K

CANDELA DISTRIBUTION (continued):

	160°	170°	180°	190°	200°	202.5°	210°	220°	225°	230°	240°
0°	662.6	662.6	662.6	662.6	662.6	662.6	662.6	662.6	662.6	662.6	662.6
2.5°	672.0	668.2	668.2	662.0	659.4	657.6	654.5	645.0	642.5	640.0	643.8
5°	677.7	670.7	665.7	654.5	645.0	641.3	629.3	606.8	591.8	580.5	574.2
7.5°	678.9	670.1	660.7	643.2	620.6	610.5	574.2	532.9	521.6	511.6	505.2
10°	677.7	667.6	654.5	628.1	574.8	557.3	520.9	494.0	487.1	485.2	487.1
12.5°	673.3	663.8	645.7	601.8	527.2	515.3	494.0	478.3	477.1	480.2	497.1
15°	665.7	656.9	635.6	566.7	500.9	492.1	477.1	471.4	478.3	500.3	551.0
17.5°	658.2	648.2	621.9	532.2	480.8	474.6	463.9	475.2	514.0	543.5	560.4
20°	648.2	636.3	606.2	507.2	466.4	460.7	455.8	506.5	536.0	546.6	556.1
22.5°	636.3	623.7	584.8	489.6	451.4	447.0	450.1	524.1	536.0	543.5	551.7
25°	620.6	609.9	559.8	475.8	439.4	434.5	446.3	522.2	529.0	530.9	547.3
27.5°	606.2	592.4	533.4	463.2	425.0	423.1	449.5	514.0	519.0	520.9	538.5
30°	588.6	567.9	504.0	450.1	410.0	409.3	450.1	504.0	502.8	507.7	525.3
32.5°	570.5	531.6	470.8	433.8	395.6	394.9	445.7	488.9	487.7	494.6	507.7
35°	553.5	503.3	425.7	415.0	377.3	378.0	435.0	471.4	472.0	478.3	486.4
37.5°	536.0	478.9	376.1	394.3	359.9	359.9	420.6	455.1	453.9	455.8	467.0
40°	515.3	440.7	332.2	367.3	343.5	341.6	403.0	437.5	433.1	432.6	448.2
42.5°	493.3	398.7	299.7	331.6	324.7	322.2	381.7	416.2	408.1	410.0	430.1
45°	469.5	387.4	274.5	280.2	305.3	303.4	358.6	391.8	386.1	391.2	411.8
47.5°	445.7	364.8	266.4	232.6	284.6	284.0	332.8	368.0	364.8	369.9	391.8
50°	413.1	339.8	265.8	199.4	261.4	263.9	302.2	344.8	344.8	349.2	372.4
52.5°	371.1	309.0	241.3	180.5	234.4	242.0	275.2	324.7	325.9	330.3	351.1
55°	332.8	277.0	223.8	166.1	202.5	218.8	248.8	304.1	306.5	310.9	329.8
57.5°	297.8	230.7	220.0	149.2	173.0	188.7	225.6	284.0	285.2	289.0	307.1
60°	260.1	166.8	201.9	131.0	147.3	159.2	204.3	260.1	264.5	267.0	282.7
62.5°	217.5	121.0	183.0	118.5	134.8	137.3	186.8	237.6	243.2	245.1	254.5
65°	154.9	101.5	155.4	107.9	121.6	122.3	168.0	214.4	219.4	222.6	229.5
67.5°	104.7	82.7	118.5	97.8	111.6	112.2	149.8	187.4	194.3	196.8	201.2
70°	72.7	55.1	87.8	87.1	100.3	101.5	130.4	163.0	169.3	171.1	173.7
72.5°	53.3	44.5	72.7	78.3	88.4	89.6	110.3	135.4	141.7	143.6	144.8
75°	40.8	47.0	58.9	68.3	75.2	75.8	90.3	110.3	114.7	116.0	116.6
77.5°	32.6	43.8	43.3	55.1	61.4	60.2	70.9	85.2	89.0	89.0	89.0
80°	24.5	34.5	32.6	39.5	45.1	43.8	50.8	60.8	62.1	63.3	62.7
82.5°	18.1	22.0	22.0	25.1	30.1	28.9	33.8	39.5	39.5	39.5	40.8
85°	11.3	12.5	10.0	13.2	16.9	16.3	18.8	21.3	22.0	22.0	20.7
87.5°	6.9	5.6	3.2	5.0	7.5	7.5	8.8	9.4	8.8	8.8	8.8
90°	15.1	10.5	5.8	10.5	15.1	16.4	25.7	38.1	44.3	39.4	29.5
92.5°	102.6	62.9	23.3	62.9	102.6	112.5	158.2	219.0	249.5	218.6	157.0
95°	201.1	128.5	56.0	128.5	201.1	219.2	389.2	616.0	729.4	650.8	493.8
97.5°	224.8	160.8	96.7	160.8	224.8	240.8	524.3	902.4	1091.4	1041.7	942.5
100°	244.3	186.3	128.2	186.3	244.3	258.8	573.4	992.9	1202.7	1206.3	1213.6
102.5°	263.4	209.3	155.1	209.3	263.4	277.0	596.1	1021.4	1234.2	1297.4	1423.8
105°	292.3	246.5	200.6	246.5	292.3	303.8	612.7	1024.6	1230.6	1372.3	1655.8
107.5°	332.8	289.9	247.2	289.9	332.8	343.4	615.9	979.1	1160.7	1358.4	1753.8
110°	355.9	317.2	278.6	317.2	355.9	365.6	611.2	938.6	1102.4	1323.5	1765.5



TEST NUMBER: P935835

CATALOG NUMBER: SQ4-FA-150U-050D-92765-1D-UNV-STD-W-4-5000K

CANDELA DISTRIBUTION (continued):

	160°	170°	180°	190°	200°	202.5°	210°	220°	225°	230°	240°
112.5°	383.2	346.4	309.6	346.4	383.2	392.4	611.4	903.4	1049.4	1275.6	1728.0
115°	424.1	390.1	356.2	390.1	424.1	432.6	617.0	862.9	985.8	1203.7	1639.6
117.5°	464.0	433.1	402.3	433.1	464.0	471.7	628.5	837.6	942.1	1138.8	1532.1
120°	487.1	458.1	429.0	458.1	487.1	494.4	637.7	829.0	924.6	1104.3	1463.7
122.5°	513.9	484.6	455.3	484.6	513.9	521.2	651.2	824.6	911.2	1073.0	1396.6
125°	549.0	522.2	495.6	522.2	549.0	555.6	669.2	820.9	896.7	1034.1	1309.0
127.5°	582.0	555.1	528.2	555.1	582.0	588.8	687.3	818.7	884.4	1002.5	1238.5
130°	603.6	574.7	545.7	574.7	603.6	610.9	700.6	820.0	879.7	984.8	1194.9
132.5°	621.8	592.8	563.7	592.8	621.8	629.1	711.2	820.9	875.6	969.7	1157.8
135°	643.4	617.0	590.5	617.0	643.4	650.0	722.9	820.0	868.6	947.4	1104.9
137.5°	670.3	644.1	617.9	644.1	670.3	676.8	740.4	825.2	867.5	934.1	1067.2
140°	689.0	664.9	640.7	664.9	689.0	695.0	751.1	826.0	863.4	920.9	1035.9
142.5°	702.7	680.5	658.2	680.5	702.7	708.3	760.0	828.9	863.4	914.0	1015.0
145°	723.8	704.5	685.0	704.5	723.8	728.7	771.7	829.0	857.6	898.9	981.5
147.5°	749.6	730.8	711.8	730.8	749.6	754.4	788.8	834.7	857.6	890.1	955.1
150°	763.5	746.5	729.4	746.5	763.5	767.8	797.7	837.6	857.6	885.1	939.9
152.5°	773.3	760.4	747.4	760.4	773.3	776.6	803.6	839.6	857.6	881.1	928.0
155°	793.4	783.8	774.2	783.8	793.4	795.8	816.4	843.9	857.6	876.3	913.6
157.5°	812.6	803.4	794.0	803.4	812.6	815.0	829.2	848.2	857.6	872.1	901.1
160°	822.0	814.7	807.4	814.7	822.0	823.8	835.1	850.1	857.6	870.0	894.9
162.5°	831.7	826.3	820.9	826.3	831.7	833.1	841.2	852.2	857.6	868.1	889.1
165°	845.3	840.3	835.4	840.3	845.3	846.5	850.2	855.2	857.6	865.1	880.1
167.5°	853.5	851.1	848.8	851.1	853.5	854.0	857.1	861.3	863.4	868.3	878.2
170°	862.3	859.9	857.6	859.9	862.3	862.8	863.0	863.3	863.4	868.3	878.2
172.5°	863.3	862.7	862.3	862.7	863.3	863.4	863.4	863.4	863.4	867.3	875.1
175°	868.6	868.6	868.6	868.6	868.6	868.6	866.8	864.5	863.4	865.8	870.8
177.5°	868.6	868.6	868.6	868.6	868.6	868.6	867.3	865.5	864.6	866.6	870.4
180°	868.6	868.6	868.6	868.6	868.6	868.6	868.6	868.6	868.6	868.6	868.6



TEST NUMBER: P935835

CATALOG NUMBER: SQ4-FA-150U-050D-92765-1D-UNV-STD-W-4-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	250°	260°	270°	280°	290°	292.5°	300°	310°	315°	320°
0°	662.6	662.6	662.6	662.6	662.6	662.6	662.6	662.6	662.6	662.6	662.6
2.5°	639.4	637.6	640.0	633.2	640.0	637.6	639.4	643.8	640.0	642.5	645.0
5°	561.0	557.9	547.9	539.7	547.9	557.9	561.0	574.2	580.5	591.8	606.8
7.5°	501.5	498.9	496.5	491.5	496.5	498.9	501.5	505.2	511.6	521.6	532.9
10°	488.3	488.9	492.7	492.1	492.7	488.9	488.3	487.1	485.2	487.1	494.0
12.5°	522.2	527.8	548.5	547.3	548.5	527.8	522.2	497.1	480.2	477.1	478.3
15°	561.0	562.9	567.3	567.9	567.3	562.9	561.0	551.0	500.3	478.3	471.4
17.5°	564.8	565.4	568.6	568.6	568.6	565.4	564.8	560.4	543.5	514.0	475.2
20°	561.7	562.9	569.2	570.5	569.2	562.9	561.7	556.1	546.6	536.0	506.5
22.5°	560.4	562.9	567.9	567.3	567.9	562.9	560.4	551.7	543.5	536.0	524.1
25°	554.2	554.2	554.7	555.4	554.7	554.2	554.2	547.3	530.9	529.0	522.2
27.5°	541.0	542.2	546.0	545.4	546.0	542.2	541.0	538.5	520.9	519.0	514.0
30°	529.0	527.8	524.7	522.2	524.7	527.8	529.0	525.3	507.7	502.8	504.0
32.5°	509.0	505.9	502.8	500.9	502.8	505.9	509.0	507.7	494.6	487.7	488.9
35°	485.2	485.9	485.2	483.3	485.2	485.9	485.2	486.4	478.3	472.0	471.4
37.5°	468.3	469.5	468.8	466.4	468.8	469.5	468.3	467.0	455.8	453.9	455.1
40°	450.7	451.4	450.7	448.8	450.7	451.4	450.7	448.2	432.6	433.1	437.5
42.5°	433.8	433.1	431.3	430.1	431.3	433.1	433.8	430.1	410.0	408.1	416.2
45°	414.4	415.0	411.2	409.3	411.2	415.0	414.4	411.8	391.2	386.1	391.8
47.5°	394.9	394.9	391.8	389.9	391.8	394.9	394.9	391.8	369.9	364.8	368.0
50°	374.3	373.6	369.2	368.6	369.2	373.6	374.3	372.4	349.2	344.8	344.8
52.5°	350.4	350.4	351.1	352.3	351.1	350.4	350.4	351.1	330.3	325.9	324.7
55°	329.8	330.3	334.7	336.0	334.7	330.3	329.8	329.8	310.9	306.5	304.1
57.5°	308.5	308.5	311.5	311.5	311.5	308.5	308.5	307.1	289.0	285.2	284.0
60°	284.0	285.2	287.7	287.1	287.7	285.2	284.0	282.7	267.0	264.5	260.1
62.5°	258.3	259.6	260.1	258.9	260.1	259.6	258.3	254.5	245.1	243.2	237.6
65°	231.3	232.6	233.2	231.9	233.2	232.6	231.3	229.5	222.6	219.4	214.4
67.5°	203.8	203.1	202.5	205.0	202.5	203.1	203.8	201.2	196.8	194.3	187.4
70°	175.5	175.5	174.9	176.2	174.9	175.5	175.5	173.7	171.1	169.3	163.0
72.5°	145.4	144.8	147.3	145.4	147.3	144.8	145.4	144.8	143.6	141.7	135.4
75°	116.0	117.2	116.0	117.9	116.0	117.2	116.0	116.6	116.0	114.7	110.3
77.5°	88.4	89.6	88.4	88.4	88.4	89.6	88.4	89.0	89.0	89.0	85.2
80°	62.7	62.1	62.1	61.4	62.1	62.1	62.7	62.7	63.3	62.1	60.8
82.5°	40.1	39.5	39.5	40.8	39.5	39.5	40.1	40.8	39.5	39.5	39.5
85°	22.0	22.5	21.3	21.3	21.3	22.5	22.0	20.7	22.0	22.0	21.3
87.5°	8.1	7.5	7.5	7.5	7.5	7.5	8.1	8.8	8.8	8.8	9.4
90°	22.2	22.2	22.2	22.2	22.2	22.2	22.2	29.5	39.4	44.3	38.1
92.5°	110.8	106.4	88.7	71.1	88.7	106.4	110.8	157.0	218.6	249.5	219.0
95°	376.0	362.7	309.3	255.9	309.3	362.7	376.0	493.8	650.8	729.4	616.0
97.5°	868.1	842.6	741.1	639.5	741.1	842.6	868.1	942.5	1041.7	1091.4	902.4
100°	1219.0	1188.8	1067.8	946.8	1067.8	1188.8	1219.0	1213.6	1206.3	1202.7	992.9
102.5°	1518.7	1492.8	1389.2	1285.5	1389.2	1492.8	1518.7	1423.8	1297.4	1234.2	1021.4
105°	1868.5	1854.6	1798.8	1743.1	1798.8	1854.6	1868.5	1655.8	1372.3	1230.6	1024.6
107.5°	2050.4	2053.7	2067.2	2080.7	2067.2	2053.7	2050.4	1753.8	1358.4	1160.7	979.1
110°	2097.0	2111.5	2169.5	2227.6	2169.5	2111.5	2097.0	1765.5	1323.5	1102.4	938.6



TEST NUMBER: P935835

CATALOG NUMBER: SQ4-FA-150U-050D-92765-1D-UNV-STD-W-4-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	250°	260°	270°	280°	290°	292.5°	300°	310°	315°	320°
112.5°	2067.3	2089.5	2178.7	2267.8	2178.7	2089.5	2067.3	1728.0	1275.6	1049.4	903.4
115°	1966.4	1997.4	2120.9	2244.5	2120.9	1997.4	1966.4	1639.6	1203.7	985.8	862.9
117.5°	1827.1	1861.4	1998.4	2135.4	1998.4	1861.4	1827.1	1532.1	1138.8	942.1	837.6
120°	1733.2	1766.5	1899.7	2032.9	1899.7	1766.5	1733.2	1463.7	1104.3	924.6	829.0
122.5°	1639.4	1672.2	1803.6	1934.9	1803.6	1672.2	1639.4	1396.6	1073.0	911.2	824.6
125°	1515.2	1545.4	1666.4	1787.4	1666.4	1545.4	1515.2	1309.0	1034.1	896.7	820.9
127.5°	1415.5	1441.0	1543.1	1645.2	1543.1	1441.0	1415.5	1238.5	1002.5	884.4	818.7
130°	1352.5	1376.1	1470.4	1564.7	1470.4	1376.1	1352.5	1194.9	984.8	879.7	820.0
132.5°	1298.9	1320.0	1404.4	1488.9	1404.4	1320.0	1298.9	1157.8	969.7	875.6	820.9
135°	1223.1	1241.3	1314.1	1386.9	1314.1	1241.3	1223.1	1104.9	947.4	868.6	820.0
137.5°	1167.2	1182.0	1241.7	1301.2	1241.7	1182.0	1167.2	1067.2	934.1	867.5	825.2
140°	1122.2	1136.1	1191.8	1247.6	1191.8	1136.1	1122.2	1035.9	920.9	863.4	826.0
142.5°	1090.8	1102.8	1150.7	1198.6	1150.7	1102.8	1090.8	1015.0	914.0	863.4	828.9
145°	1043.5	1052.6	1088.9	1125.2	1088.9	1052.6	1043.5	981.5	898.9	857.6	829.0
147.5°	1003.9	1011.4	1041.4	1071.5	1041.4	1011.4	1003.9	955.1	890.1	857.6	834.7
150°	981.2	987.2	1011.6	1035.9	1011.6	987.2	981.2	939.9	885.1	857.6	837.6
152.5°	963.1	967.7	986.1	1004.4	986.1	967.7	963.1	928.0	881.1	857.6	839.6
155°	941.5	944.6	956.8	968.9	956.8	944.6	941.5	913.6	876.3	857.6	843.9
157.5°	922.8	925.0	933.5	942.1	933.5	925.0	922.8	901.1	872.1	857.6	848.2
160°	913.5	914.7	919.7	924.6	919.7	914.7	913.5	894.9	870.0	857.6	850.1
162.5°	904.8	905.9	910.6	915.3	910.6	905.9	904.8	889.1	868.1	857.6	852.2
165°	891.3	892.6	897.5	902.5	897.5	892.6	891.3	880.1	865.1	857.6	855.2
167.5°	885.5	886.1	888.2	890.2	888.2	886.1	885.5	878.2	868.3	863.4	861.3
170°	885.5	885.5	885.5	885.5	885.5	885.5	885.5	878.2	868.3	863.4	863.3
172.5°	880.9	880.4	878.6	876.8	878.6	880.4	880.9	875.1	867.3	863.4	863.4
175°	874.5	874.5	874.5	874.5	874.5	874.5	874.5	870.8	865.8	863.4	864.5
177.5°	873.3	872.7	870.7	868.6	870.7	872.7	873.3	870.4	866.6	864.6	865.5
180°	868.6	868.6	868.6	868.6	868.6	868.6	868.6	868.6	868.6	868.6	868.6



TEST NUMBER: P935835

CATALOG NUMBER: SQ4-FA-150U-050D-92765-1D-UNV-STD-W-4-5000K

CANDELA DISTRIBUTION (continued):

	330°	337.5°	340°	350°	360°
0°	662.6	662.6	662.6	662.6	662.6
2.5°	654.5	657.6	659.4	662.0	668.2
5°	629.3	641.3	645.0	654.5	665.7
7.5°	574.2	610.5	620.6	643.2	660.7
10°	520.9	557.3	574.8	628.1	654.5
12.5°	494.0	515.3	527.2	601.8	645.7
15°	477.1	492.1	500.9	566.7	635.6
17.5°	463.9	474.6	480.8	532.2	621.9
20°	455.8	460.7	466.4	507.2	606.2
22.5°	450.1	447.0	451.4	489.6	584.8
25°	446.3	434.5	439.4	475.8	559.8
27.5°	449.5	423.1	425.0	463.2	533.4
30°	450.1	409.3	410.0	450.1	504.0
32.5°	445.7	394.9	395.6	433.8	470.8
35°	435.0	378.0	377.3	415.0	425.7
37.5°	420.6	359.9	359.9	394.3	376.1
40°	403.0	341.6	343.5	367.3	332.2
42.5°	381.7	322.2	324.7	331.6	299.7
45°	358.6	303.4	305.3	280.2	274.5
47.5°	332.8	284.0	284.6	232.6	266.4
50°	302.2	263.9	261.4	199.4	265.8
52.5°	275.2	242.0	234.4	180.5	241.3
55°	248.8	218.8	202.5	166.1	223.8
57.5°	225.6	188.7	173.0	149.2	220.0
60°	204.3	159.2	147.3	131.0	201.9
62.5°	186.8	137.3	134.8	118.5	183.0
65°	168.0	122.3	121.6	107.9	155.4
67.5°	149.8	112.2	111.6	97.8	118.5
70°	130.4	101.5	100.3	87.1	87.8
72.5°	110.3	89.6	88.4	78.3	72.7
75°	90.3	75.8	75.2	68.3	58.9
77.5°	70.9	60.2	61.4	55.1	43.3
80°	50.8	43.8	45.1	39.5	32.6
82.5°	33.8	28.9	30.1	25.1	22.0
85°	18.8	16.3	16.9	13.2	10.0
87.5°	8.8	7.5	7.5	5.0	3.2
90°	25.7	16.4	15.1	10.5	5.8
92.5°	158.2	112.5	102.6	62.9	23.3
95°	389.2	219.2	201.1	128.5	56.0
97.5°	524.3	240.8	224.8	160.8	96.7
100°	573.4	258.8	244.3	186.3	128.2
102.5°	596.1	277.0	263.4	209.3	155.1
105°	612.7	303.8	292.3	246.5	200.6
107.5°	615.9	343.4	332.8	289.9	247.2
110°	611.2	365.6	355.9	317.2	278.6



TEST NUMBER: P935835

CATALOG NUMBER: SQ4-FA-150U-050D-92765-1D-UNV-STD-W-4-5000K

CANDELA DISTRIBUTION (continued):

	330°	337.5°	340°	350°	360°
112.5°	611.4	392.4	383.2	346.4	309.6
115°	617.0	432.6	424.1	390.1	356.2
117.5°	628.5	471.7	464.0	433.1	402.3
120°	637.7	494.4	487.1	458.1	429.0
122.5°	651.2	521.2	513.9	484.6	455.3
125°	669.2	555.6	549.0	522.2	495.6
127.5°	687.3	588.8	582.0	555.1	528.2
130°	700.6	610.9	603.6	574.7	545.7
132.5°	711.2	629.1	621.8	592.8	563.7
135°	722.9	650.0	643.4	617.0	590.5
137.5°	740.4	676.8	670.3	644.1	617.9
140°	751.1	695.0	689.0	664.9	640.7
142.5°	760.0	708.3	702.7	680.5	658.2
145°	771.7	728.7	723.8	704.5	685.0
147.5°	788.8	754.4	749.6	730.8	711.8
150°	797.7	767.8	763.5	746.5	729.4
152.5°	803.6	776.6	773.3	760.4	747.4
155°	816.4	795.8	793.4	783.8	774.2
157.5°	829.2	815.0	812.6	803.4	794.0
160°	835.1	823.8	822.0	814.7	807.4
162.5°	841.2	833.1	831.7	826.3	820.9
165°	850.2	846.5	845.3	840.3	835.4
167.5°	857.1	854.0	853.5	851.1	848.8
170°	863.0	862.8	862.3	859.9	857.6
172.5°	863.4	863.4	863.3	862.7	862.3
175°	866.8	868.6	868.6	868.6	868.6
177.5°	867.3	868.6	868.6	868.6	868.6
180°	868.6	868.6	868.6	868.6	868.6



TEST NUMBER: P935835
 CATALOG NUMBER: SQ4-FA-150U-050D-92765-1D-UNV-STD-W-4-5000K

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	7.89	8.56	9.05	9.70	11.31	10.69	11.36	11.85	12.50	14.10
	3H	8.36	8.95	9.52	10.10	11.72	12.01	12.61	13.17	13.76	15.38
	4H	8.54	9.10	9.71	10.25	11.88	12.44	13.00	13.61	14.16	15.78
	6H	8.65	9.17	9.83	10.32	11.96	12.71	13.23	13.89	14.38	16.02
	8H	8.64	9.14	9.82	10.30	11.93	12.77	13.26	13.95	14.43	16.06
	12H	8.61	9.07	9.79	10.24	11.89	12.80	13.27	13.98	14.43	16.08
4H	2H	8.89	9.46	10.07	10.61	12.24	11.08	11.64	12.26	12.79	14.42
	3H	9.90	10.37	11.09	11.55	13.19	12.55	13.03	13.74	14.20	15.84
	4H	10.17	10.60	11.36	11.77	13.42	13.07	13.50	14.25	14.67	16.32
	6H	10.28	10.65	11.47	11.84	13.49	13.41	13.78	14.60	14.97	16.62
	8H	10.28	10.63	11.47	11.81	13.47	13.51	13.86	14.70	15.04	16.70
	12H	10.24	10.56	11.45	11.75	13.41	13.55	13.87	14.76	15.06	16.72
8H	4H	10.60	10.95	11.79	12.13	13.79	13.18	13.52	14.37	14.70	16.36
	6H	10.86	11.14	12.06	12.36	14.02	13.60	13.88	14.81	15.10	16.76
	8H	10.90	11.14	12.11	12.34	14.02	13.74	13.99	14.96	15.19	16.87
	12H	10.87	11.09	12.09	12.28	14.00	13.83	14.04	15.04	15.24	16.95
12H	4H	10.60	10.91	11.80	12.10	13.77	13.13	13.45	14.34	14.63	16.30
	6H	10.91	11.16	12.13	12.36	14.04	13.59	13.84	14.81	15.04	16.72
	8H	10.97	11.19	12.19	12.38	14.09	13.74	13.96	14.96	15.15	16.86