

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: P933859

Luminaire Tested: SQ4-FA-025U-050D-93050-1D-UNV-STD-W-4-4000K

Issue Date: 12/17/2024

**Test Information**

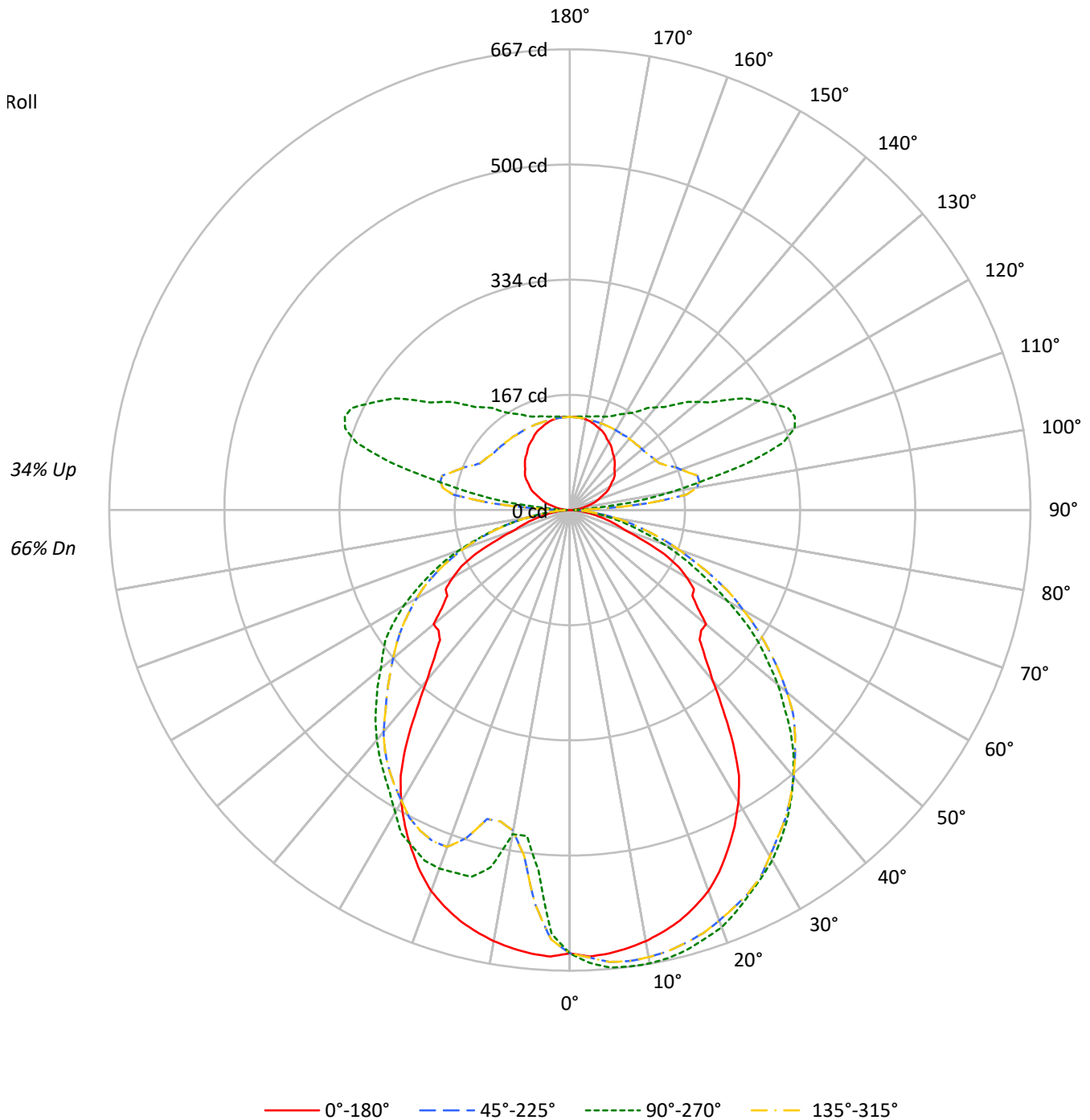
Test Method: LM-79-2019  
Report Number: P933859  
REPORT IS A COMBINATION OF REPORTS P933674 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FA-025U-050D-93050-1D-UNV-STD-W-4-4000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Asymmetric Frosted Continuous I  
Lens  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2539.8 lumens  
Efficiency: N/A  
Efficacy: 115.4 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-Direct  
  
Input Watts (W): 22  
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				
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	111	111	111	111	104	104	104	104	92	92	92	81	81	81	70	70	70	70	70	70	66
1	101	97	93	89	95	91	88	85	81	78	76	71	69	68	62	61	60	60	60	60	55
2	92	85	78	73	87	80	74	70	71	67	63	63	59	56	55	52	50	50	50	50	46
3	84	75	67	61	79	70	64	58	63	57	53	55	51	48	49	46	43	43	43	43	39
4	77	66	58	52	72	62	55	49	56	50	45	49	45	41	43	40	37	37	37	37	34
5	71	59	50	44	66	56	48	43	50	44	39	44	39	35	39	35	32	32	32	32	29
6	65	53	45	39	61	50	43	37	45	39	34	40	35	31	35	31	28	28	28	28	26
7	60	48	40	34	57	45	38	33	41	35	30	36	31	28	32	28	25	25	25	25	23
8	56	43	35	30	53	41	34	29	37	31	27	33	28	25	30	26	22	22	22	22	20
9	52	40	32	27	49	38	31	26	34	28	24	31	26	22	27	23	20	20	20	20	18
10	49	36	29	24	46	35	28	23	31	26	22	28	23	20	25	21	18	18	18	18	16

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

	0°	90°	180°	270°
0°	5954	5954	5954	5954
5°	5992	6011	5992	4725
10°	5946	5921	5946	4233
15°	5874	5793	5874	4837
20°	5744	5640	5744	4847
25°	5486	5418	5486	4744
30°	5155	5235	5155	4519
35°	4589	5002	4589	4271
40°	3817	4728	3817	4084
45°	3403	4408	3403	3868
50°	3608	4025	3608	3652
55°	3385	3613	3385	3527
60°	3478	3067	3478	3231
65°	3136	2536	3136	2835
70°	2158	2021	2158	2377
75°	1869	1494	1869	1789
80°	1479	989	1479	1076
85°	803	524	803	444

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 20°  
 Vertical Angle: 45°  
 Luminance: 5228 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	57.9	2.3
10°-20°	164.5	6.5
20°-30°	254.2	10.0
30°-40°	303.5	11.9
40°-50°	305.3	12.0
50°-60°	265.6	10.5
60°-70°	188.3	7.4
70°-80°	99.6	3.9
80°-90°	25.3	1.0
90°-100°	65.8	2.6
100°-110°	173.1	6.8
110°-120°	179.5	7.1
120°-130°	144.0	5.7
130°-140°	113.0	4.4
140°-150°	86.7	3.4
150°-160°	62.4	2.5
160°-170°	38.2	1.5
170°-180°	12.9	0.5
0°-30°	476.6	18.8
0°-40°	780.1	30.7
0°-60°	1350.9	53.2
0°-90°	1664.2	65.5
90°-120°	418.5	16.5
90°-150°	762.1	30.0
90°-180°	876.0	34.5
0°-180°	2539.8	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	642	642	642	642	642	
5°	645	665	645	523	645	61
15°	616	659	616	550	616	173
25°	542	614	542	538	542	249
35°	412	548	412	468	412	255
45°	266	452	266	396	266	213
55°	217	333	217	325	217	199
65°	150	201	150	225	150	144
75°	57	95	57	114	57	60
85°	10	24	10	21	10	13
90°	1	3	1	3	1	1
95°	9	40	9	40	9	10
105°	31	271	31	271	31	33
115°	55	349	55	349	55	55
125°	77	278	77	278	77	68
135°	92	216	92	216	92	71
145°	106	175	106	175	106	67
155°	120	151	120	151	120	55
165°	130	140	130	140	130	37
175°	135	136	135	136	135	13
180°	135	135	135	135	135	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	641.7	641.7	641.7	641.7	641.7	641.7	641.7	641.7	641.7	641.7	641.7
2.5°	647.1	647.1	650.7	652.0	652.0	650.2	648.4	650.2	655.6	657.4	656.8
5°	644.7	649.5	656.2	657.4	658.7	658.1	656.8	658.1	664.1	665.3	665.9
7.5°	639.9	648.9	657.4	659.2	661.0	659.2	658.7	659.9	665.9	667.1	667.1
10°	633.8	646.5	656.2	657.4	659.2	657.4	657.4	659.9	665.9	667.1	667.7
12.5°	625.3	642.8	652.0	653.2	655.6	655.0	654.4	656.8	662.9	664.1	664.1
15°	615.5	636.1	644.7	645.9	650.2	648.9	648.9	651.4	658.1	659.9	659.2
17.5°	602.2	627.7	637.4	639.2	642.3	641.7	642.3	644.7	650.7	652.0	652.6
20°	587.0	616.1	627.7	629.5	632.5	632.5	632.5	635.6	641.7	644.1	644.1
22.5°	566.4	604.0	616.1	617.4	621.0	621.0	622.2	626.5	631.9	632.5	632.5
25°	542.1	590.6	600.9	604.6	608.3	610.1	611.9	614.3	616.1	615.5	616.1
27.5°	516.6	573.7	587.0	589.4	594.3	596.1	598.6	599.1	599.8	601.6	600.4
30°	488.1	550.0	570.0	572.4	580.3	581.6	579.1	580.3	583.4	584.6	585.8
32.5°	455.9	514.8	552.4	557.9	565.2	561.6	560.9	562.7	567.6	567.6	568.8
35°	412.2	487.4	536.0	540.9	546.4	542.1	544.5	545.1	548.2	550.0	549.3
37.5°	364.2	463.8	519.0	522.6	526.9	521.5	525.1	526.9	529.3	528.2	528.2
40°	321.7	426.8	499.0	501.5	505.1	500.8	504.4	505.7	506.9	505.7	505.1
42.5°	290.2	386.1	477.7	480.8	478.4	481.4	482.6	485.1	483.2	480.8	480.8
45°	265.8	375.2	454.7	458.3	454.7	459.6	461.4	461.4	455.9	454.7	454.0
47.5°	258.0	353.3	431.6	431.6	429.8	435.8	438.9	434.7	429.2	427.3	427.3
50°	257.4	329.0	400.1	397.6	406.1	413.4	410.4	406.1	401.9	395.2	395.2
52.5°	233.7	299.2	359.3	368.5	381.8	386.1	381.3	377.0	369.7	366.7	364.2
55°	216.7	268.3	322.3	340.5	354.6	360.0	350.8	346.6	335.7	333.9	332.6
57.5°	213.1	223.4	288.4	311.4	328.4	327.8	322.3	314.5	305.3	303.5	303.0
60°	195.5	161.5	251.9	279.2	296.8	295.0	290.2	282.9	274.4	273.2	272.0
62.5°	177.2	117.1	210.6	241.6	266.5	265.8	261.7	250.7	244.7	241.6	239.1
65°	150.5	98.3	150.0	200.9	236.8	238.0	228.8	220.9	214.3	210.6	210.0
67.5°	114.8	80.1	101.4	167.5	208.2	207.0	195.5	191.8	183.3	181.5	177.9
70°	85.0	53.4	70.4	136.0	180.3	177.2	168.2	163.9	156.0	151.8	149.4
72.5°	70.4	43.1	51.6	105.6	151.8	148.1	140.2	135.4	128.7	125.1	122.6
75°	57.0	45.5	39.5	78.3	123.2	120.8	113.5	108.6	103.2	98.3	98.9
77.5°	41.9	42.5	31.6	57.7	97.8	94.1	89.9	83.8	81.4	76.5	76.5
80°	31.6	33.4	23.7	39.5	70.4	70.4	66.8	62.5	58.3	55.8	55.8
82.5°	21.3	21.3	17.6	24.9	48.0	46.2	43.7	42.5	40.1	38.8	38.8
85°	9.7	12.1	11.0	15.2	26.1	27.3	27.3	26.1	25.5	24.3	24.9
87.5°	3.1	5.4	6.7	8.5	13.4	13.9	14.6	14.6	14.6	15.2	15.2
90°	0.9	1.6	2.4	2.5	4.0	5.9	6.9	6.2	4.6	3.4	3.4
92.5°	3.6	9.8	15.9	17.5	24.6	34.1	38.8	34.0	24.4	17.2	16.5
95°	8.7	20.0	31.3	34.1	60.6	95.8	113.4	101.2	76.8	58.5	56.4
97.5°	15.0	25.0	34.9	37.5	81.6	140.3	169.7	162.0	146.5	135.0	131.0
100°	19.9	29.0	38.0	40.3	89.2	154.4	187.0	187.5	188.7	189.5	184.8
102.5°	24.1	32.5	41.0	43.1	92.7	158.9	191.9	201.8	221.4	236.2	232.1
105°	31.2	38.4	45.4	47.2	95.3	159.3	191.4	213.4	257.5	290.6	288.4
107.5°	38.5	45.1	51.8	53.4	95.8	152.2	180.5	211.3	272.7	318.9	319.4
110°	43.4	49.3	55.3	56.8	95.0	146.0	171.4	205.8	274.5	326.1	328.4



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	48.2	53.9	59.6	61.0	95.0	140.5	163.2	198.4	268.7	321.5	325.0
115°	55.4	60.6	65.9	67.3	95.9	134.2	153.3	187.2	255.0	305.8	310.6
117.5°	62.5	67.3	72.1	73.3	97.8	130.3	146.5	177.1	238.2	284.1	289.5
120°	66.7	71.2	75.8	76.8	99.1	128.9	143.7	171.7	227.6	269.6	274.7
122.5°	70.8	75.3	79.8	81.0	101.2	128.2	141.7	166.8	217.1	254.9	260.0
125°	77.0	81.2	85.4	86.4	104.1	127.6	139.4	160.8	203.6	235.6	240.3
127.5°	82.1	86.4	90.5	91.6	106.9	127.3	137.5	155.9	192.6	220.1	224.1
130°	84.8	89.3	93.9	95.0	109.0	127.5	136.8	153.2	185.8	210.4	214.0
132.5°	87.7	92.2	96.8	97.8	110.6	127.6	136.1	150.8	180.0	202.0	205.3
135°	91.9	95.9	100.1	101.1	112.4	127.5	135.1	147.3	171.8	190.2	193.0
137.5°	96.1	100.2	104.3	105.3	115.1	128.3	134.9	145.2	165.9	181.5	183.8
140°	99.7	103.4	107.2	108.1	116.8	128.4	134.2	143.2	161.1	174.5	176.7
142.5°	102.4	105.8	109.3	110.2	118.2	128.9	134.2	142.1	157.9	169.6	171.5
145°	106.5	109.5	112.6	113.3	120.0	128.9	133.3	139.8	152.6	162.3	163.7
147.5°	110.7	113.6	116.6	117.3	122.6	129.8	133.3	138.4	148.5	156.1	157.3
150°	113.4	116.0	118.8	119.4	124.0	130.3	133.3	137.6	146.2	152.6	153.5
152.5°	116.2	118.2	120.2	120.7	124.9	130.5	133.3	137.0	144.3	149.8	150.5
155°	120.4	121.8	123.4	123.7	126.9	131.2	133.3	136.2	142.1	146.5	146.9
157.5°	123.5	124.9	126.4	126.7	128.9	131.9	133.3	135.6	140.1	143.5	143.8
160°	125.5	126.6	127.8	128.1	129.8	132.2	133.3	135.2	139.1	142.0	142.2
162.5°	127.6	128.4	129.3	129.5	130.8	132.5	133.3	135.0	138.2	140.7	140.8
165°	129.9	130.6	131.4	131.6	132.2	133.0	133.3	134.5	136.9	138.6	138.8
167.5°	132.0	132.3	132.7	132.8	133.2	133.9	134.2	135.0	136.5	137.7	137.8
170°	133.3	133.7	134.1	134.1	134.1	134.2	134.2	135.0	136.5	137.7	137.7
172.5°	134.1	134.1	134.2	134.2	134.2	134.2	134.2	134.9	136.0	137.0	136.9
175°	135.1	135.1	135.1	135.1	134.8	134.4	134.2	134.6	135.4	136.0	136.0
177.5°	135.1	135.1	135.1	135.1	134.9	134.6	134.4	134.7	135.3	135.8	135.7
180°	135.1	135.1	135.1	135.1	135.1	135.1	135.1	135.1	135.1	135.1	135.1



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**CANDELA DISTRIBUTION (continued):**

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
0°	641.7	641.7	641.7	641.7	641.7	641.7	641.7	641.7	641.7	641.7	641.7
2.5°	658.1	656.2	658.1	656.8	657.4	655.6	650.2	648.4	650.2	652.0	652.0
5°	665.9	664.8	665.9	665.9	665.3	664.1	658.1	656.8	658.1	658.7	657.4
7.5°	668.4	666.6	668.4	667.1	667.1	665.9	659.9	658.7	659.2	661.0	659.2
10°	668.4	666.6	668.4	667.7	667.1	665.9	659.9	657.4	657.4	659.2	657.4
12.5°	665.3	664.1	665.3	664.1	664.1	662.9	656.8	654.4	655.0	655.6	653.2
15°	660.5	658.7	660.5	659.2	659.9	658.1	651.4	648.9	648.9	650.2	645.9
17.5°	653.2	650.7	653.2	652.6	652.0	650.7	644.7	642.3	641.7	642.3	639.2
20°	644.7	642.8	644.7	644.1	644.1	641.7	635.6	632.5	632.5	632.5	629.5
22.5°	631.3	629.5	631.3	632.5	632.5	631.9	626.5	622.2	621.0	621.0	617.4
25°	616.1	614.3	616.1	616.1	615.5	616.1	614.3	611.9	610.1	608.3	604.6
27.5°	601.6	600.4	601.6	600.4	601.6	599.8	599.1	598.6	596.1	594.3	589.4
30°	587.0	585.8	587.0	585.8	584.6	583.4	580.3	579.1	581.6	580.3	572.4
32.5°	568.8	567.6	568.8	568.8	567.6	567.6	562.7	560.9	561.6	565.2	557.9
35°	550.0	548.2	550.0	549.3	550.0	548.2	545.1	544.5	542.1	546.4	540.9
37.5°	528.2	526.4	528.2	528.2	528.2	529.3	526.9	525.1	521.5	526.9	522.6
40°	505.7	503.3	505.7	505.1	505.7	506.9	505.7	504.4	500.8	505.1	501.5
42.5°	480.2	479.6	480.2	480.8	480.8	483.2	485.1	482.6	481.4	478.4	480.8
45°	452.9	451.7	452.9	454.0	454.7	455.9	461.4	461.4	459.6	454.7	458.3
47.5°	423.7	420.7	423.7	427.3	427.3	429.2	434.7	438.9	435.8	429.8	431.6
50°	392.7	393.4	392.7	395.2	395.2	401.9	406.1	410.4	413.4	406.1	397.6
52.5°	362.4	361.8	362.4	364.2	366.7	369.7	377.0	381.3	386.1	381.8	368.5
55°	332.0	333.3	332.0	332.6	333.9	335.7	346.6	350.8	360.0	354.6	340.5
57.5°	301.7	299.9	301.7	303.0	303.5	305.3	314.5	322.3	327.8	328.4	311.4
60°	266.5	264.0	266.5	272.0	273.2	274.4	282.9	290.2	295.0	296.8	279.2
62.5°	235.5	231.3	235.5	239.1	241.6	244.7	250.7	261.7	265.8	266.5	241.6
65°	202.8	200.9	202.8	210.0	210.6	214.3	220.9	228.8	238.0	236.8	200.9
67.5°	173.0	173.0	173.0	177.9	181.5	183.3	191.8	195.5	207.0	208.2	167.5
70°	145.7	145.1	145.7	149.4	151.8	156.0	163.9	168.2	177.2	180.3	136.0
72.5°	119.6	118.9	119.6	122.6	125.1	128.7	135.4	140.2	148.1	151.8	105.6
75°	96.5	95.3	96.5	98.9	98.3	103.2	108.6	113.5	120.8	123.2	78.3
77.5°	74.0	74.0	74.0	76.5	76.5	81.4	83.8	89.9	94.1	97.8	57.7
80°	55.2	54.7	55.2	55.8	55.8	58.3	62.5	66.8	70.4	70.4	39.5
82.5°	38.8	37.7	38.8	38.8	38.8	40.1	42.5	43.7	46.2	48.0	24.9
85°	24.3	24.3	24.3	24.9	24.3	25.5	26.1	27.3	27.3	26.1	15.2
87.5°	15.7	15.2	15.7	15.2	15.2	14.6	14.6	14.6	13.9	13.4	8.5
90°	3.4	3.4	3.4	3.4	3.4	4.6	6.2	6.9	5.9	4.0	2.5
92.5°	13.8	11.0	13.8	16.5	17.2	24.4	34.0	38.8	34.1	24.6	17.5
95°	48.2	39.8	48.2	56.4	58.5	76.8	101.2	113.4	95.8	60.6	34.1
97.5°	115.2	99.5	115.2	131.0	135.0	146.5	162.0	169.7	140.3	81.6	37.5
100°	166.1	147.3	166.1	184.8	189.5	188.7	187.5	187.0	154.4	89.2	40.3
102.5°	216.0	199.9	216.0	232.1	236.2	221.4	201.8	191.9	158.9	92.7	43.1
105°	279.8	271.1	279.8	288.4	290.6	257.5	213.4	191.4	159.3	95.3	47.2
107.5°	321.5	323.6	321.5	319.4	318.9	272.7	211.3	180.5	152.2	95.8	53.4
110°	337.4	346.4	337.4	328.4	326.1	274.5	205.8	171.4	146.0	95.0	56.8





TEST NUMBER: P933859

CATALOG NUMBER: SQ4-FA-025U-050D-93050-1D-UNV-STD-W-4-4000K

**CANDELA DISTRIBUTION (continued):**

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
112.5°	338.8	352.7	338.8	325.0	321.5	268.7	198.4	163.2	140.5	95.0	61.0
115°	329.8	349.0	329.8	310.6	305.8	255.0	187.2	153.3	134.2	95.9	67.3
117.5°	310.7	332.1	310.7	289.5	284.1	238.2	177.1	146.5	130.3	97.8	73.3
120°	295.4	316.1	295.4	274.7	269.6	227.6	171.7	143.7	128.9	99.1	76.8
122.5°	280.4	300.9	280.4	260.0	254.9	217.1	166.8	141.7	128.2	101.2	81.0
125°	259.1	278.0	259.1	240.3	235.6	203.6	160.8	139.4	127.6	104.1	86.4
127.5°	240.0	255.8	240.0	224.1	220.1	192.6	155.9	137.5	127.3	106.9	91.6
130°	228.6	243.3	228.6	214.0	210.4	185.8	153.2	136.8	127.5	109.0	95.0
132.5°	218.4	231.5	218.4	205.3	202.0	180.0	150.8	136.1	127.6	110.6	97.8
135°	204.4	215.7	204.4	193.0	190.2	171.8	147.3	135.1	127.5	112.4	101.1
137.5°	193.1	202.4	193.1	183.8	181.5	165.9	145.2	134.9	128.3	115.1	105.3
140°	185.3	194.0	185.3	176.7	174.5	161.1	143.2	134.2	128.4	116.8	108.1
142.5°	179.0	186.4	179.0	171.5	169.6	157.9	142.1	134.2	128.9	118.2	110.2
145°	169.4	175.0	169.4	163.7	162.3	152.6	139.8	133.3	128.9	120.0	113.3
147.5°	161.9	166.6	161.9	157.3	156.1	148.5	138.4	133.3	129.8	122.6	117.3
150°	157.3	161.1	157.3	153.5	152.6	146.2	137.6	133.3	130.3	124.0	119.4
152.5°	153.3	156.2	153.3	150.5	149.8	144.3	137.0	133.3	130.5	124.9	120.7
155°	148.8	150.7	148.8	146.9	146.5	142.1	136.2	133.3	131.2	126.9	123.7
157.5°	145.2	146.5	145.2	143.8	143.5	140.1	135.6	133.3	131.9	128.9	126.7
160°	143.0	143.7	143.0	142.2	142.0	139.1	135.2	133.3	132.2	129.8	128.1
162.5°	141.6	142.3	141.6	140.8	140.7	138.2	135.0	133.3	132.5	130.8	129.5
165°	139.6	140.3	139.6	138.8	138.6	136.9	134.5	133.3	133.0	132.2	131.6
167.5°	138.0	138.4	138.0	137.8	137.7	136.5	135.0	134.2	133.9	133.2	132.8
170°	137.7	137.7	137.7	137.7	137.7	136.5	135.0	134.2	134.2	134.1	134.1
172.5°	136.6	136.3	136.6	136.9	137.0	136.0	134.9	134.2	134.2	134.2	134.2
175°	136.0	136.0	136.0	136.0	136.0	135.4	134.6	134.2	134.4	134.8	135.1
177.5°	135.4	135.1	135.4	135.7	135.8	135.3	134.7	134.4	134.6	134.9	135.1
180°	135.1	135.1	135.1	135.1	135.1	135.1	135.1	135.1	135.1	135.1	135.1



TEST NUMBER: P933859

CATALOG NUMBER: SQ4-FA-025U-050D-93050-1D-UNV-STD-W-4-4000K

**CANDELA DISTRIBUTION (continued):**

	160°	170°	180°	190°	200°	202.5°	210°	220°	225°	230°	240°
0°	641.7	641.7	641.7	641.7	641.7	641.7	641.7	641.7	641.7	641.7	641.7
2.5°	650.7	647.1	647.1	641.0	638.6	636.8	633.8	624.7	622.2	619.8	623.5
5°	656.2	649.5	644.7	633.8	624.7	621.0	609.4	587.6	573.1	562.1	556.0
7.5°	657.4	648.9	639.9	622.8	600.9	591.3	556.0	516.0	505.1	495.4	489.2
10°	656.2	646.5	633.8	608.3	556.7	539.7	504.4	478.4	471.7	469.9	471.7
12.5°	652.0	642.8	625.3	582.7	510.5	499.0	478.4	463.2	462.0	465.0	481.4
15°	644.7	636.1	615.5	548.8	485.1	476.6	462.0	456.5	463.2	484.4	533.6
17.5°	637.4	627.7	602.2	515.4	465.6	459.6	449.2	460.2	497.7	526.4	542.7
20°	627.7	616.1	587.0	491.1	451.7	446.2	441.4	490.5	519.0	529.3	538.5
22.5°	616.1	604.0	566.4	474.1	437.1	432.8	435.8	507.5	519.0	526.4	534.2
25°	600.9	590.6	542.1	460.7	425.5	420.7	432.2	505.7	512.3	514.1	530.0
27.5°	587.0	573.7	516.6	448.6	411.6	409.8	435.3	497.7	502.6	504.4	521.5
30°	570.0	550.0	488.1	435.8	397.0	396.4	435.8	488.1	486.9	491.7	508.7
32.5°	552.4	514.8	455.9	420.1	383.1	382.4	431.6	473.5	472.3	478.9	491.7
35°	536.0	487.4	412.2	401.9	365.4	366.0	421.3	456.5	457.1	463.2	471.0
37.5°	519.0	463.8	364.2	381.8	348.5	348.5	407.3	440.7	439.5	441.4	452.2
40°	499.0	426.8	321.7	355.7	332.6	330.8	390.3	423.7	419.5	418.9	434.0
42.5°	477.7	386.1	290.2	321.2	314.5	312.0	369.7	403.1	395.2	397.0	416.5
45°	454.7	375.2	265.8	271.4	295.6	293.8	347.2	379.4	373.9	378.8	398.8
47.5°	431.6	353.3	258.0	225.2	275.6	275.0	322.3	356.4	353.3	358.2	379.4
50°	400.1	329.0	257.4	193.1	253.2	255.5	292.6	333.9	333.9	338.2	360.6
52.5°	359.3	299.2	233.7	174.8	227.0	234.3	266.5	314.5	315.6	319.9	340.0
55°	322.3	268.3	216.7	160.8	196.1	211.9	241.0	294.4	296.8	301.1	319.3
57.5°	288.4	223.4	213.1	144.5	167.5	182.8	218.5	275.0	276.2	279.9	297.4
60°	251.9	161.5	195.5	126.9	142.7	154.1	197.9	251.9	256.2	258.6	273.8
62.5°	210.6	117.1	177.2	114.8	130.5	133.0	180.9	230.1	235.5	237.3	246.5
65°	150.0	98.3	150.5	104.5	117.8	118.4	162.7	207.6	212.4	215.5	222.2
67.5°	101.4	80.1	114.8	94.7	108.1	108.6	145.1	181.5	188.2	190.6	194.9
70°	70.4	53.4	85.0	84.4	97.1	98.3	126.3	157.9	163.9	165.7	168.2
72.5°	51.6	43.1	70.4	75.9	85.6	86.8	106.8	131.2	137.2	139.0	140.2
75°	39.5	45.5	57.0	66.2	72.9	73.4	87.4	106.8	111.1	112.3	112.9
77.5°	31.6	42.5	41.9	53.4	59.5	58.3	68.6	82.6	86.2	86.2	86.2
80°	23.7	33.4	31.6	38.3	43.7	42.5	49.2	58.9	60.1	61.3	60.7
82.5°	17.6	21.3	21.3	24.3	29.1	28.0	32.8	38.3	38.3	38.3	39.5
85°	11.0	12.1	9.7	12.8	16.4	15.7	18.2	20.6	21.3	21.3	20.0
87.5°	6.7	5.4	3.1	4.9	7.2	7.2	8.5	9.1	8.5	8.5	8.5
90°	2.4	1.6	0.9	1.6	2.4	2.5	4.0	5.9	6.9	6.2	4.6
92.5°	15.9	9.8	3.6	9.8	15.9	17.5	24.6	34.1	38.8	34.0	24.4
95°	31.3	20.0	8.7	20.0	31.3	34.1	60.6	95.8	113.4	101.2	76.8
97.5°	34.9	25.0	15.0	25.0	34.9	37.5	81.6	140.3	169.7	162.0	146.5
100°	38.0	29.0	19.9	29.0	38.0	40.3	89.2	154.4	187.0	187.5	188.7
102.5°	41.0	32.5	24.1	32.5	41.0	43.1	92.7	158.9	191.9	201.8	221.4
105°	45.4	38.4	31.2	38.4	45.4	47.2	95.3	159.3	191.4	213.4	257.5
107.5°	51.8	45.1	38.5	45.1	51.8	53.4	95.8	152.2	180.5	211.3	272.7
110°	55.3	49.3	43.4	49.3	55.3	56.8	95.0	146.0	171.4	205.8	274.5



TEST NUMBER: P933859

CATALOG NUMBER: SQ4-FA-025U-050D-93050-1D-UNV-STD-W-4-4000K

**CANDELA DISTRIBUTION (continued):**

	160°	170°	180°	190°	200°	202.5°	210°	220°	225°	230°	240°
112.5°	59.6	53.9	48.2	53.9	59.6	61.0	95.0	140.5	163.2	198.4	268.7
115°	65.9	60.6	55.4	60.6	65.9	67.3	95.9	134.2	153.3	187.2	255.0
117.5°	72.1	67.3	62.5	67.3	72.1	73.3	97.8	130.3	146.5	177.1	238.2
120°	75.8	71.2	66.7	71.2	75.8	76.8	99.1	128.9	143.7	171.7	227.6
122.5°	79.8	75.3	70.8	75.3	79.8	81.0	101.2	128.2	141.7	166.8	217.1
125°	85.4	81.2	77.0	81.2	85.4	86.4	104.1	127.6	139.4	160.8	203.6
127.5°	90.5	86.4	82.1	86.4	90.5	91.6	106.9	127.3	137.5	155.9	192.6
130°	93.9	89.3	84.8	89.3	93.9	95.0	109.0	127.5	136.8	153.2	185.8
132.5°	96.8	92.2	87.7	92.2	96.8	97.8	110.6	127.6	136.1	150.8	180.0
135°	100.1	95.9	91.9	95.9	100.1	101.1	112.4	127.5	135.1	147.3	171.8
137.5°	104.3	100.2	96.1	100.2	104.3	105.3	115.1	128.3	134.9	145.2	165.9
140°	107.2	103.4	99.7	103.4	107.2	108.1	116.8	128.4	134.2	143.2	161.1
142.5°	109.3	105.8	102.4	105.8	109.3	110.2	118.2	128.9	134.2	142.1	157.9
145°	112.6	109.5	106.5	109.5	112.6	113.3	120.0	128.9	133.3	139.8	152.6
147.5°	116.6	113.6	110.7	113.6	116.6	117.3	122.6	129.8	133.3	138.4	148.5
150°	118.8	116.0	113.4	116.0	118.8	119.4	124.0	130.3	133.3	137.6	146.2
152.5°	120.2	118.2	116.2	118.2	120.2	120.7	124.9	130.5	133.3	137.0	144.3
155°	123.4	121.8	120.4	121.8	123.4	123.7	126.9	131.2	133.3	136.2	142.1
157.5°	126.4	124.9	123.5	124.9	126.4	126.7	128.9	131.9	133.3	135.6	140.1
160°	127.8	126.6	125.5	126.6	127.8	128.1	129.8	132.2	133.3	135.2	139.1
162.5°	129.3	128.4	127.6	128.4	129.3	129.5	130.8	132.5	133.3	135.0	138.2
165°	131.4	130.6	129.9	130.6	131.4	131.6	132.2	133.0	133.3	134.5	136.9
167.5°	132.7	132.3	132.0	132.3	132.7	132.8	133.2	133.9	134.2	135.0	136.5
170°	134.1	133.7	133.3	133.7	134.1	134.1	134.1	134.2	134.2	135.0	136.5
172.5°	134.2	134.1	134.1	134.1	134.2	134.2	134.2	134.2	134.2	134.9	136.0
175°	135.1	135.1	135.1	135.1	135.1	135.1	134.8	134.4	134.2	134.6	135.4
177.5°	135.1	135.1	135.1	135.1	135.1	135.1	134.9	134.6	134.4	134.7	135.3
180°	135.1	135.1	135.1	135.1	135.1	135.1	135.1	135.1	135.1	135.1	135.1



TEST NUMBER: P933859

CATALOG NUMBER: SQ4-FA-025U-050D-93050-1D-UNV-STD-W-4-4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	250°	260°	270°	280°	290°	292.5°	300°	310°	315°	320°
0°	641.7	641.7	641.7	641.7	641.7	641.7	641.7	641.7	641.7	641.7	641.7
2.5°	619.2	617.4	619.8	613.2	619.8	617.4	619.2	623.5	619.8	622.2	624.7
5°	543.3	540.3	530.6	522.6	530.6	540.3	543.3	556.0	562.1	573.1	587.6
7.5°	485.6	483.2	480.8	475.9	480.8	483.2	485.6	489.2	495.4	505.1	516.0
10°	472.9	473.5	477.1	476.6	477.1	473.5	472.9	471.7	469.9	471.7	478.4
12.5°	505.7	511.1	531.1	530.0	531.1	511.1	505.7	481.4	465.0	462.0	463.2
15°	543.3	545.1	549.3	550.0	549.3	545.1	543.3	533.6	484.4	463.2	456.5
17.5°	547.0	547.5	550.6	550.6	550.6	547.5	547.0	542.7	526.4	497.7	460.2
20°	543.9	545.1	551.2	552.4	551.2	545.1	543.9	538.5	529.3	519.0	490.5
22.5°	542.7	545.1	550.0	549.3	550.0	545.1	542.7	534.2	526.4	519.0	507.5
25°	536.7	536.7	537.2	537.8	537.2	536.7	536.7	530.0	514.1	512.3	505.7
27.5°	523.9	525.1	528.7	528.2	528.7	525.1	523.9	521.5	504.4	502.6	497.7
30°	512.3	511.1	508.1	505.7	508.1	511.1	512.3	508.7	491.7	486.9	488.1
32.5°	493.0	489.9	486.9	485.1	486.9	489.9	493.0	491.7	478.9	472.3	473.5
35°	469.9	470.5	469.9	468.1	469.9	470.5	469.9	471.0	463.2	457.1	456.5
37.5°	453.5	454.7	454.0	451.7	454.0	454.7	453.5	452.2	441.4	439.5	440.7
40°	436.5	437.1	436.5	434.7	436.5	437.1	436.5	434.0	418.9	419.5	423.7
42.5°	420.1	419.5	417.6	416.5	417.6	419.5	420.1	416.5	397.0	395.2	403.1
45°	401.3	401.9	398.2	396.4	398.2	401.9	401.3	398.8	378.8	373.9	379.4
47.5°	382.4	382.4	379.4	377.5	379.4	382.4	382.4	379.4	358.2	353.3	356.4
50°	362.4	361.8	357.5	356.9	357.5	361.8	362.4	360.6	338.2	333.9	333.9
52.5°	339.3	339.3	340.0	341.2	340.0	339.3	339.3	340.0	319.9	315.6	314.5
55°	319.3	319.9	324.1	325.4	324.1	319.9	319.3	319.3	301.1	296.8	294.4
57.5°	298.7	298.7	301.7	301.7	301.7	298.7	298.7	297.4	279.9	276.2	275.0
60°	275.0	276.2	278.6	278.1	278.6	276.2	275.0	273.8	258.6	256.2	251.9
62.5°	250.1	251.4	251.9	250.7	251.9	251.4	250.1	246.5	237.3	235.5	230.1
65°	224.0	225.2	225.8	224.6	225.8	225.2	224.0	222.2	215.5	212.4	207.6
67.5°	197.3	196.7	196.1	198.5	196.1	196.7	197.3	194.9	190.6	188.2	181.5
70°	170.0	170.0	169.4	170.6	169.4	170.0	170.0	168.2	165.7	163.9	157.9
72.5°	140.8	140.2	142.7	140.8	142.7	140.2	140.8	140.2	139.0	137.2	131.2
75°	112.3	113.5	112.3	114.1	112.3	113.5	112.3	112.9	112.3	111.1	106.8
77.5°	85.6	86.8	85.6	85.6	85.6	86.8	85.6	86.2	86.2	86.2	82.6
80°	60.7	60.1	60.1	59.5	60.1	60.1	60.7	60.7	61.3	60.1	58.9
82.5°	38.8	38.3	38.3	39.5	38.3	38.3	38.8	39.5	38.3	38.3	38.3
85°	21.3	21.8	20.6	20.6	20.6	21.8	21.3	20.0	21.3	21.3	20.6
87.5°	7.9	7.2	7.2	7.2	7.2	7.2	7.9	8.5	8.5	8.5	9.1
90°	3.4	3.4	3.4	3.4	3.4	3.4	3.4	4.6	6.2	6.9	5.9
92.5°	17.2	16.5	13.8	11.0	13.8	16.5	17.2	24.4	34.0	38.8	34.1
95°	58.5	56.4	48.2	39.8	48.2	56.4	58.5	76.8	101.2	113.4	95.8
97.5°	135.0	131.0	115.2	99.5	115.2	131.0	135.0	146.5	162.0	169.7	140.3
100°	189.5	184.8	166.1	147.3	166.1	184.8	189.5	188.7	187.5	187.0	154.4
102.5°	236.2	232.1	216.0	199.9	216.0	232.1	236.2	221.4	201.8	191.9	158.9
105°	290.6	288.4	279.8	271.1	279.8	288.4	290.6	257.5	213.4	191.4	159.3
107.5°	318.9	319.4	321.5	323.6	321.5	319.4	318.9	272.7	211.3	180.5	152.2
110°	326.1	328.4	337.4	346.4	337.4	328.4	326.1	274.5	205.8	171.4	146.0



TEST NUMBER: P933859

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**CANDELA DISTRIBUTION (continued):**

	247.5°	250°	260°	270°	280°	290°	292.5°	300°	310°	315°	320°
112.5°	321.5	325.0	338.8	352.7	338.8	325.0	321.5	268.7	198.4	163.2	140.5
115°	305.8	310.6	329.8	349.0	329.8	310.6	305.8	255.0	187.2	153.3	134.2
117.5°	284.1	289.5	310.7	332.1	310.7	289.5	284.1	238.2	177.1	146.5	130.3
120°	269.6	274.7	295.4	316.1	295.4	274.7	269.6	227.6	171.7	143.7	128.9
122.5°	254.9	260.0	280.4	300.9	280.4	260.0	254.9	217.1	166.8	141.7	128.2
125°	235.6	240.3	259.1	278.0	259.1	240.3	235.6	203.6	160.8	139.4	127.6
127.5°	220.1	224.1	240.0	255.8	240.0	224.1	220.1	192.6	155.9	137.5	127.3
130°	210.4	214.0	228.6	243.3	228.6	214.0	210.4	185.8	153.2	136.8	127.5
132.5°	202.0	205.3	218.4	231.5	218.4	205.3	202.0	180.0	150.8	136.1	127.6
135°	190.2	193.0	204.4	215.7	204.4	193.0	190.2	171.8	147.3	135.1	127.5
137.5°	181.5	183.8	193.1	202.4	193.1	183.8	181.5	165.9	145.2	134.9	128.3
140°	174.5	176.7	185.3	194.0	185.3	176.7	174.5	161.1	143.2	134.2	128.4
142.5°	169.6	171.5	179.0	186.4	179.0	171.5	169.6	157.9	142.1	134.2	128.9
145°	162.3	163.7	169.4	175.0	169.4	163.7	162.3	152.6	139.8	133.3	128.9
147.5°	156.1	157.3	161.9	166.6	161.9	157.3	156.1	148.5	138.4	133.3	129.8
150°	152.6	153.5	157.3	161.1	157.3	153.5	152.6	146.2	137.6	133.3	130.3
152.5°	149.8	150.5	153.3	156.2	153.3	150.5	149.8	144.3	137.0	133.3	130.5
155°	146.5	146.9	148.8	150.7	148.8	146.9	146.5	142.1	136.2	133.3	131.2
157.5°	143.5	143.8	145.2	146.5	145.2	143.8	143.5	140.1	135.6	133.3	131.9
160°	142.0	142.2	143.0	143.7	143.0	142.2	142.0	139.1	135.2	133.3	132.2
162.5°	140.7	140.8	141.6	142.3	141.6	140.8	140.7	138.2	135.0	133.3	132.5
165°	138.6	138.8	139.6	140.3	139.6	138.8	138.6	136.9	134.5	133.3	133.0
167.5°	137.7	137.8	138.0	138.4	138.0	137.8	137.7	136.5	135.0	134.2	133.9
170°	137.7	137.7	137.7	137.7	137.7	137.7	137.7	136.5	135.0	134.2	134.2
172.5°	137.0	136.9	136.6	136.3	136.6	136.9	137.0	136.0	134.9	134.2	134.2
175°	136.0	136.0	136.0	136.0	136.0	136.0	136.0	135.4	134.6	134.2	134.4
177.5°	135.8	135.7	135.4	135.1	135.4	135.7	135.8	135.3	134.7	134.4	134.6
180°	135.1	135.1	135.1	135.1	135.1	135.1	135.1	135.1	135.1	135.1	135.1



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**CANDELA DISTRIBUTION (continued):**

	330°	337.5°	340°	350°	360°
0°	641.7	641.7	641.7	641.7	641.7
2.5°	633.8	636.8	638.6	641.0	647.1
5°	609.4	621.0	624.7	633.8	644.7
7.5°	556.0	591.3	600.9	622.8	639.9
10°	504.4	539.7	556.7	608.3	633.8
12.5°	478.4	499.0	510.5	582.7	625.3
15°	462.0	476.6	485.1	548.8	615.5
17.5°	449.2	459.6	465.6	515.4	602.2
20°	441.4	446.2	451.7	491.1	587.0
22.5°	435.8	432.8	437.1	474.1	566.4
25°	432.2	420.7	425.5	460.7	542.1
27.5°	435.3	409.8	411.6	448.6	516.6
30°	435.8	396.4	397.0	435.8	488.1
32.5°	431.6	382.4	383.1	420.1	455.9
35°	421.3	366.0	365.4	401.9	412.2
37.5°	407.3	348.5	348.5	381.8	364.2
40°	390.3	330.8	332.6	355.7	321.7
42.5°	369.7	312.0	314.5	321.2	290.2
45°	347.2	293.8	295.6	271.4	265.8
47.5°	322.3	275.0	275.6	225.2	258.0
50°	292.6	255.5	253.2	193.1	257.4
52.5°	266.5	234.3	227.0	174.8	233.7
55°	241.0	211.9	196.1	160.8	216.7
57.5°	218.5	182.8	167.5	144.5	213.1
60°	197.9	154.1	142.7	126.9	195.5
62.5°	180.9	133.0	130.5	114.8	177.2
65°	162.7	118.4	117.8	104.5	150.5
67.5°	145.1	108.6	108.1	94.7	114.8
70°	126.3	98.3	97.1	84.4	85.0
72.5°	106.8	86.8	85.6	75.9	70.4
75°	87.4	73.4	72.9	66.2	57.0
77.5°	68.6	58.3	59.5	53.4	41.9
80°	49.2	42.5	43.7	38.3	31.6
82.5°	32.8	28.0	29.1	24.3	21.3
85°	18.2	15.7	16.4	12.8	9.7
87.5°	8.5	7.2	7.2	4.9	3.1
90°	4.0	2.5	2.4	1.6	0.9
92.5°	24.6	17.5	15.9	9.8	3.6
95°	60.6	34.1	31.3	20.0	8.7
97.5°	81.6	37.5	34.9	25.0	15.0
100°	89.2	40.3	38.0	29.0	19.9
102.5°	92.7	43.1	41.0	32.5	24.1
105°	95.3	47.2	45.4	38.4	31.2
107.5°	95.8	53.4	51.8	45.1	38.5
110°	95.0	56.8	55.3	49.3	43.4



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CATALOG NUMBER: SQ4-FA-025U-050D-93050-1D-UNV-STD-W-4-4000K

**CANDELA DISTRIBUTION (continued):**

	330°	337.5°	340°	350°	360°
112.5°	95.0	61.0	59.6	53.9	48.2
115°	95.9	67.3	65.9	60.6	55.4
117.5°	97.8	73.3	72.1	67.3	62.5
120°	99.1	76.8	75.8	71.2	66.7
122.5°	101.2	81.0	79.8	75.3	70.8
125°	104.1	86.4	85.4	81.2	77.0
127.5°	106.9	91.6	90.5	86.4	82.1
130°	109.0	95.0	93.9	89.3	84.8
132.5°	110.6	97.8	96.8	92.2	87.7
135°	112.4	101.1	100.1	95.9	91.9
137.5°	115.1	105.3	104.3	100.2	96.1
140°	116.8	108.1	107.2	103.4	99.7
142.5°	118.2	110.2	109.3	105.8	102.4
145°	120.0	113.3	112.6	109.5	106.5
147.5°	122.6	117.3	116.6	113.6	110.7
150°	124.0	119.4	118.8	116.0	113.4
152.5°	124.9	120.7	120.2	118.2	116.2
155°	126.9	123.7	123.4	121.8	120.4
157.5°	128.9	126.7	126.4	124.9	123.5
160°	129.8	128.1	127.8	126.6	125.5
162.5°	130.8	129.5	129.3	128.4	127.6
165°	132.2	131.6	131.4	130.6	129.9
167.5°	133.2	132.8	132.7	132.3	132.0
170°	134.1	134.1	134.1	133.7	133.3
172.5°	134.2	134.2	134.2	134.1	134.1
175°	134.8	135.1	135.1	135.1	135.1
177.5°	134.9	135.1	135.1	135.1	135.1
180°	135.1	135.1	135.1	135.1	135.1



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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	12.31	13.33	13.12	14.17	15.20	15.11	16.13	15.92	16.97	18.00
	3H	12.80	13.72	13.63	14.56	15.62	16.46	17.38	17.28	18.22	19.28
	4H	13.00	13.87	13.84	14.72	15.79	16.90	17.77	17.75	18.62	19.69
	6H	13.13	13.93	13.98	14.79	15.87	17.19	17.99	18.04	18.85	19.93
	8H	13.14	13.89	14.00	14.77	15.85	17.26	18.02	18.13	18.90	19.98
	12H	13.11	13.84	13.98	14.71	15.82	17.30	18.03	18.17	18.90	20.01
4H	2H	13.36	14.22	14.20	15.07	16.14	15.54	16.41	16.39	17.26	18.33
	3H	14.40	15.12	15.26	16.00	17.09	17.05	17.77	17.91	18.66	19.74
	4H	14.68	15.34	15.55	16.22	17.33	17.58	18.24	18.45	19.12	20.23
	6H	14.82	15.38	15.70	16.29	17.40	17.95	18.51	18.83	19.42	20.53
	8H	14.83	15.36	15.72	16.26	17.38	18.05	18.58	18.94	19.48	20.61
	12H	14.80	15.28	15.71	16.20	17.33	18.11	18.59	19.02	19.51	20.64
8H	4H	15.14	15.67	16.03	16.57	17.70	17.72	18.25	18.61	19.15	20.28
	6H	15.41	15.85	16.33	16.79	17.92	18.15	18.59	19.07	19.53	20.66
	8H	15.46	15.84	16.38	16.78	17.92	18.30	18.69	19.23	19.62	20.77
	12H	15.45	15.79	16.38	16.72	17.91	18.40	18.74	19.33	19.67	20.87
12H	4H	15.16	15.63	16.06	16.55	17.69	17.69	18.17	18.60	19.09	20.22
	6H	15.47	15.86	16.40	16.80	17.94	18.15	18.54	19.08	19.47	20.62
	8H	15.55	15.89	16.48	16.81	18.01	18.32	18.66	19.24	19.58	20.78