

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: P933810

Luminaire Tested: SQ4-FA-025U-050D-830-1D-UNV-STD-W-4

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P933810
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-830-1D-UNV-STD-W-4
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Asymmetric Frosted Continuous I
Lens
Light Source: -
Ballast/Driver: -

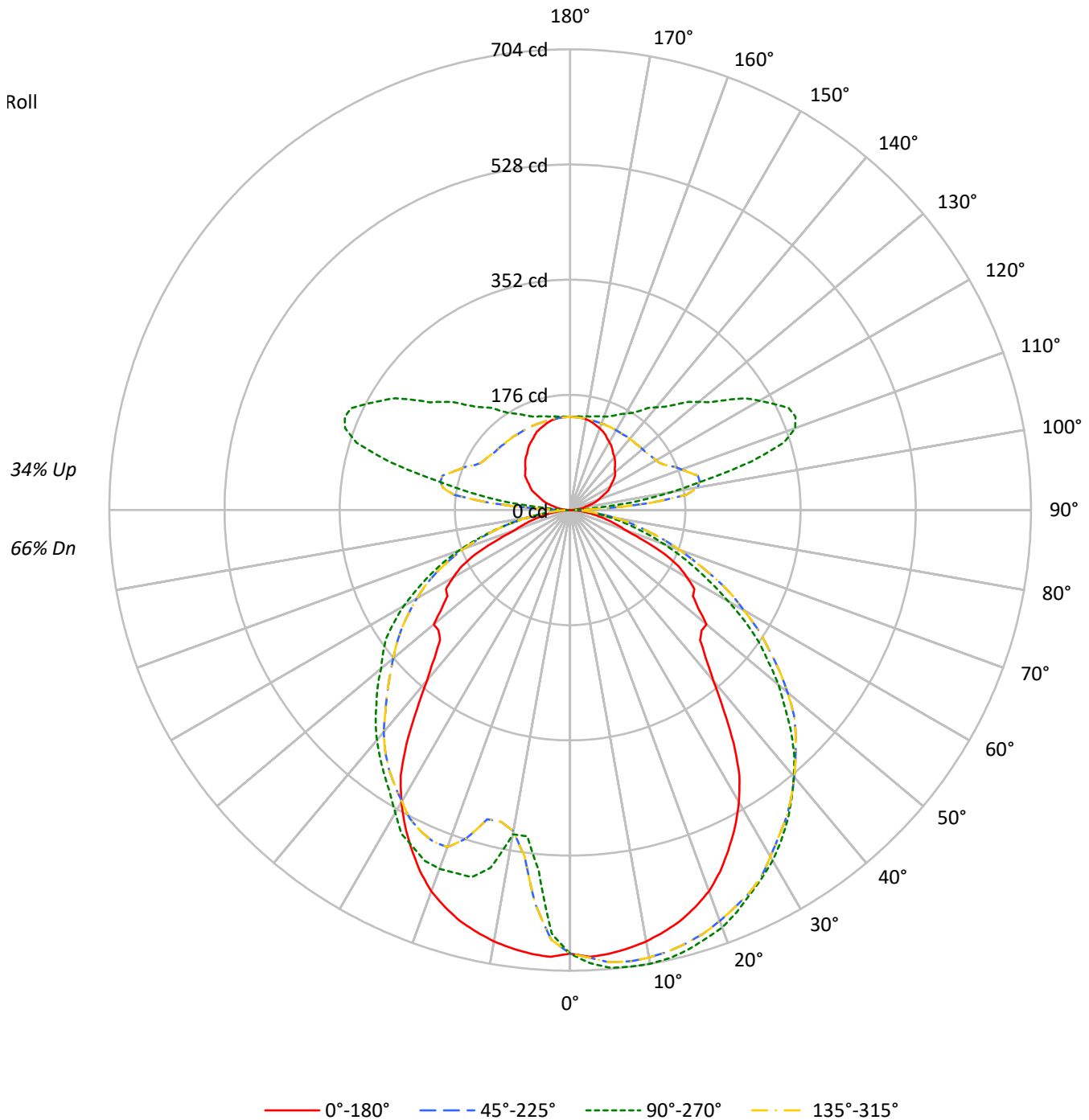
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2682.5 lumens
Efficiency: N/A
Efficacy: 121.9 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 (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				20	
RC	80				70				50				30				10				0	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0	
RCR																						
0	111	111	111	111	104	104	104	104	92	92	92	81	81	81	70	70	70	66				66
1	101	97	93	89	95	91	88	85	81	78	76	71	69	68	62	61	60	55				55
2	92	85	78	73	87	80	74	70	71	67	63	63	59	56	55	52	50	46				46
3	84	75	67	61	79	70	64	58	63	57	53	55	51	48	49	46	43	39				39
4	77	66	58	52	72	62	55	49	56	50	45	49	45	41	43	40	37	34				34
5	71	59	50	44	66	56	48	43	50	44	39	44	39	35	39	35	32	29				29
6	65	53	45	39	61	50	43	37	45	39	34	40	35	31	35	31	28	26				26
7	60	48	40	34	57	45	38	33	41	35	30	36	31	28	32	28	25	23				23
8	56	43	35	30	53	41	34	29	37	31	27	33	28	25	30	26	22	20				20
9	52	40	32	27	49	38	31	26	34	28	24	31	26	22	27	23	20	18				18
10	49	36	29	24	46	35	28	23	31	26	22	28	23	20	25	21	18	16				16

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	6289	6289	6289	6289
5°	6329	6348	6329	4991
10°	6280	6253	6280	4470
15°	6204	6118	6204	5108
20°	6067	5957	6067	5119
25°	5794	5723	5794	5011
30°	5445	5529	5445	4773
35°	4847	5283	4847	4510
40°	4031	4993	4031	4313
45°	3595	4655	3595	4085
50°	3812	4251	3812	3857
55°	3575	3816	3575	3726
60°	3673	3241	3673	3412
65°	3313	2678	3313	2994
70°	2280	2134	2280	2510
75°	1974	1579	1974	1891
80°	1563	1043	1563	1135
85°	845	552	845	470

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 20°
 Vertical Angle: 45°
 Luminance: 5521 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.2	2.3
10°-20°	173.7	6.5
20°-30°	268.5	10.0
30°-40°	320.5	11.9
40°-50°	322.4	12.0
50°-60°	280.5	10.5
60°-70°	198.9	7.4
70°-80°	105.2	3.9
80°-90°	26.8	1.0
90°-100°	69.5	2.6
100°-110°	182.8	6.8
110°-120°	189.6	7.1
120°-130°	152.1	5.7
130°-140°	119.3	4.4
140°-150°	91.6	3.4
150°-160°	65.9	2.5
160°-170°	40.3	1.5
170°-180°	13.6	0.5
0°-30°	503.4	18.8
0°-40°	823.9	30.7
0°-60°	1426.8	53.2
0°-90°	1757.7	65.5
90°-120°	442.0	16.5
90°-150°	804.9	30.0
90°-180°	925.0	34.5
0°-180°	2682.5	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	678	678	678	678	678	
5°	681	702	681	552	681	65
15°	650	696	650	581	650	183
25°	572	649	572	568	572	263
35°	435	579	435	494	435	269
45°	281	477	281	419	281	225
55°	229	352	229	344	229	210
65°	159	212	159	237	159	152
75°	60	101	60	121	60	63
85°	10	26	10	22	10	14
90°	1	4	1	4	1	1
95°	9	42	9	42	9	10
105°	33	286	33	286	33	35
115°	58	369	58	369	58	58
125°	81	294	81	294	81	72
135°	97	228	97	228	97	75
145°	112	185	112	185	112	70
155°	127	159	127	159	127	58
165°	137	148	137	148	137	39
175°	143	144	143	144	143	14
180°	143	143	143	143	143	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	677.7	677.7	677.7	677.7	677.7	677.7	677.7	677.7	677.7	677.7	677.7
2.5°	683.4	683.4	687.3	688.6	688.6	686.7	684.8	686.7	692.4	694.3	693.7
5°	680.9	686.0	693.1	694.3	695.7	695.0	693.7	695.0	701.4	702.7	703.3
7.5°	675.8	685.4	694.3	696.3	698.2	696.3	695.7	696.9	703.3	704.6	704.6
10°	669.4	682.8	693.1	694.3	696.3	694.3	694.3	696.9	703.3	704.6	705.2
12.5°	660.4	679.0	688.6	689.8	692.4	691.8	691.2	693.7	700.2	701.4	701.4
15°	650.1	671.9	680.9	682.2	686.7	685.4	685.4	687.9	695.0	696.9	696.3
17.5°	636.0	663.0	673.2	675.1	678.4	677.7	678.4	680.9	687.3	688.6	689.3
20°	620.0	650.7	663.0	664.9	668.1	668.1	668.1	671.3	677.7	680.3	680.3
22.5°	598.2	637.9	650.7	652.1	655.9	655.9	657.2	661.6	667.4	668.1	668.1
25°	572.5	623.8	634.7	638.6	642.4	644.3	646.3	648.8	650.7	650.1	650.7
27.5°	545.6	605.9	620.0	622.5	627.7	629.6	632.2	632.8	633.4	635.4	634.1
30°	515.5	580.9	602.0	604.6	612.9	614.2	611.6	612.9	616.1	617.4	618.7
32.5°	481.5	543.7	583.4	589.2	596.9	593.1	592.4	594.3	599.5	599.5	600.8
35°	435.4	514.8	566.1	571.3	577.0	572.5	575.1	575.7	579.0	580.9	580.2
37.5°	384.7	489.9	548.2	552.0	556.5	550.8	554.6	556.5	559.1	557.8	557.8
40°	339.8	450.8	527.0	529.6	533.4	529.0	532.8	534.1	535.4	534.1	533.4
42.5°	306.5	407.7	504.6	507.8	505.2	508.4	509.7	512.3	510.3	507.8	507.8
45°	280.8	396.3	480.2	484.0	480.2	485.4	487.3	487.3	481.5	480.2	479.5
47.5°	272.5	373.1	455.8	455.8	453.9	460.3	463.6	459.1	453.3	451.3	451.3
50°	271.9	347.5	422.6	420.0	429.0	436.6	433.5	429.0	424.5	417.4	417.4
52.5°	246.8	316.1	379.5	389.2	403.2	407.7	402.7	398.2	390.4	387.3	384.7
55°	228.9	283.4	340.4	359.6	374.5	380.2	370.5	366.1	354.6	352.7	351.3
57.5°	225.0	235.9	304.6	328.9	346.8	346.3	340.4	332.1	322.5	320.5	320.0
60°	206.5	170.6	266.1	294.9	313.5	311.6	306.5	298.8	289.8	288.5	287.3
62.5°	187.2	123.7	222.5	255.2	281.4	280.8	276.4	264.8	258.4	255.2	252.6
65°	159.0	103.8	158.4	212.2	250.1	251.3	241.7	233.4	226.3	222.5	221.8
67.5°	121.2	84.6	107.1	177.0	219.9	218.6	206.5	202.6	193.6	191.7	187.9
70°	89.8	56.4	74.4	143.6	190.4	187.2	177.6	173.1	164.8	160.3	157.7
72.5°	74.4	45.5	54.5	111.6	160.3	156.4	148.1	143.0	135.9	132.1	129.5
75°	60.2	48.1	41.7	82.7	130.1	127.6	119.9	114.7	109.0	103.8	104.5
77.5°	44.3	44.8	33.4	60.9	103.2	99.4	94.9	88.5	85.9	80.8	80.8
80°	33.4	35.3	25.0	41.7	74.4	74.4	70.6	66.1	61.6	59.0	59.0
82.5°	22.5	22.5	18.5	26.3	50.7	48.8	46.2	44.8	42.4	41.0	41.0
85°	10.2	12.8	11.6	16.1	27.5	28.9	28.9	27.5	27.0	25.6	26.3
87.5°	3.3	5.7	7.1	9.0	14.1	14.7	15.4	15.4	15.4	16.1	16.1
90°	1.0	1.7	2.5	2.7	4.2	6.2	7.3	6.5	4.9	3.6	3.6
92.5°	3.8	10.3	16.8	18.5	26.0	36.0	41.0	35.9	25.8	18.2	17.4
95°	9.2	21.1	33.1	36.0	64.0	101.1	119.8	106.9	81.1	61.8	59.6
97.5°	15.9	26.4	36.9	39.6	86.1	148.2	179.2	171.1	154.8	142.5	138.3
100°	21.0	30.6	40.2	42.5	94.2	163.1	197.5	198.1	199.3	200.2	195.2
102.5°	25.4	34.3	43.3	45.5	97.9	167.8	202.7	213.1	233.8	249.4	245.1
105°	33.0	40.5	48.0	49.9	100.7	168.3	202.1	225.4	272.0	306.9	304.6
107.5°	40.6	47.6	54.7	56.4	101.1	160.8	190.6	223.1	288.0	336.8	337.4
110°	45.8	52.1	58.4	60.0	100.4	154.2	181.1	217.4	290.0	344.4	346.8



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	50.9	56.9	62.9	64.4	100.4	148.4	172.4	209.6	283.8	339.6	343.2
115°	58.5	64.1	69.6	71.0	101.3	141.8	161.9	197.7	269.3	322.9	328.0
117.5°	66.1	71.1	76.2	77.4	103.2	137.6	154.8	187.1	251.6	300.1	305.7
120°	70.5	75.2	80.0	81.2	104.7	136.1	151.8	181.4	240.4	284.7	290.1
122.5°	74.8	79.5	84.3	85.6	106.9	135.4	149.6	176.2	229.3	269.2	274.6
125°	81.4	85.8	90.2	91.3	109.9	134.8	147.2	169.8	215.0	248.8	253.8
127.5°	86.7	91.2	95.6	96.7	112.9	134.4	145.2	164.6	203.4	232.5	236.7
130°	89.6	94.4	99.1	100.4	115.1	134.7	144.5	161.8	196.3	222.2	226.0
132.5°	92.6	97.4	102.2	103.3	116.8	134.8	143.8	159.3	190.1	213.4	216.8
135°	97.0	101.3	105.7	106.8	118.7	134.7	142.6	155.5	181.4	200.9	203.8
137.5°	101.5	105.8	110.1	111.2	121.6	135.5	142.4	153.3	175.2	191.7	194.2
140°	105.3	109.2	113.2	114.1	123.3	135.7	141.8	151.2	170.2	184.3	186.6
142.5°	108.1	111.8	115.4	116.3	124.9	136.1	141.8	150.1	166.7	179.2	181.2
145°	112.5	115.7	118.9	119.7	126.8	136.1	140.8	147.6	161.2	171.4	172.9
147.5°	116.9	120.0	123.1	123.9	129.5	137.1	140.8	146.2	156.9	164.9	166.2
150°	119.8	122.6	125.4	126.1	131.0	137.6	140.8	145.3	154.4	161.2	162.1
152.5°	122.8	124.9	127.0	127.5	131.9	137.9	140.8	144.6	152.4	158.2	159.0
155°	127.1	128.7	130.3	130.7	134.0	138.5	140.8	143.9	150.1	154.7	155.2
157.5°	130.4	131.9	133.5	133.8	136.1	139.3	140.8	143.2	148.0	151.5	151.9
160°	132.6	133.7	135.0	135.3	137.1	139.6	140.8	142.8	146.9	150.0	150.2
162.5°	134.8	135.7	136.6	136.8	138.1	140.0	140.8	142.5	146.0	148.6	148.8
165°	137.2	138.0	138.8	139.0	139.6	140.4	140.8	142.1	144.5	146.4	146.6
167.5°	139.4	139.8	140.1	140.2	140.7	141.4	141.8	142.5	144.2	145.4	145.5
170°	140.8	141.2	141.6	141.7	141.7	141.8	141.8	142.5	144.2	145.4	145.4
172.5°	141.6	141.7	141.8	141.8	141.8	141.8	141.8	142.4	143.7	144.6	144.5
175°	142.6	142.6	142.6	142.6	142.3	142.0	141.8	142.2	143.0	143.6	143.6
177.5°	142.6	142.6	142.6	142.6	142.4	142.2	142.0	142.3	142.9	143.4	143.3
180°	142.6	142.6	142.6	142.6	142.6	142.6	142.6	142.6	142.6	142.6	142.6



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CANDELA DISTRIBUTION (continued):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
0°	677.7	677.7	677.7	677.7	677.7	677.7	677.7	677.7	677.7	677.7	677.7
2.5°	695.0	693.1	695.0	693.7	694.3	692.4	686.7	684.8	686.7	688.6	688.6
5°	703.3	702.1	703.3	703.3	702.7	701.4	695.0	693.7	695.0	695.7	694.3
7.5°	705.9	704.0	705.9	704.6	704.6	703.3	696.9	695.7	696.3	698.2	696.3
10°	705.9	704.0	705.9	705.2	704.6	703.3	696.9	694.3	694.3	696.3	694.3
12.5°	702.7	701.4	702.7	701.4	701.4	700.2	693.7	691.2	691.8	692.4	689.8
15°	697.6	695.7	697.6	696.3	696.9	695.0	687.9	685.4	685.4	686.7	682.2
17.5°	689.8	687.3	689.8	689.3	688.6	687.3	680.9	678.4	677.7	678.4	675.1
20°	680.9	679.0	680.9	680.3	680.3	677.7	671.3	668.1	668.1	668.1	664.9
22.5°	666.8	664.9	666.8	668.1	668.1	667.4	661.6	657.2	655.9	655.9	652.1
25°	650.7	648.8	650.7	650.7	650.1	650.7	648.8	646.3	644.3	642.4	638.6
27.5°	635.4	634.1	635.4	634.1	635.4	633.4	632.8	632.2	629.6	627.7	622.5
30°	620.0	618.7	620.0	618.7	617.4	616.1	612.9	611.6	614.2	612.9	604.6
32.5°	600.8	599.5	600.8	600.8	599.5	599.5	594.3	592.4	593.1	596.9	589.2
35°	580.9	579.0	580.9	580.2	580.9	579.0	575.7	575.1	572.5	577.0	571.3
37.5°	557.8	555.9	557.8	557.8	557.8	559.1	556.5	554.6	550.8	556.5	552.0
40°	534.1	531.5	534.1	533.4	534.1	535.4	534.1	532.8	529.0	533.4	529.6
42.5°	507.2	506.5	507.2	507.8	507.8	510.3	512.3	509.7	508.4	505.2	507.8
45°	478.3	477.0	478.3	479.5	480.2	481.5	487.3	487.3	485.4	480.2	484.0
47.5°	447.5	444.3	447.5	451.3	451.3	453.3	459.1	463.6	460.3	453.9	455.8
50°	414.8	415.5	414.8	417.4	417.4	424.5	429.0	433.5	436.6	429.0	420.0
52.5°	382.8	382.1	382.8	384.7	387.3	390.4	398.2	402.7	407.7	403.2	389.2
55°	350.7	352.0	350.7	351.3	352.7	354.6	366.1	370.5	380.2	374.5	359.6
57.5°	318.6	316.7	318.6	320.0	320.5	322.5	332.1	340.4	346.3	346.8	328.9
60°	281.4	278.9	281.4	287.3	288.5	289.8	298.8	306.5	311.6	313.5	294.9
62.5°	248.8	244.3	248.8	252.6	255.2	258.4	264.8	276.4	280.8	281.4	255.2
65°	214.1	212.2	214.1	221.8	222.5	226.3	233.4	241.7	251.3	250.1	212.2
67.5°	182.7	182.7	182.7	187.9	191.7	193.6	202.6	206.5	218.6	219.9	177.0
70°	153.9	153.2	153.9	157.7	160.3	164.8	173.1	177.6	187.2	190.4	143.6
72.5°	126.3	125.6	126.3	129.5	132.1	135.9	143.0	148.1	156.4	160.3	111.6
75°	101.9	100.7	101.9	104.5	103.8	109.0	114.7	119.9	127.6	130.1	82.7
77.5°	78.2	78.2	78.2	80.8	80.8	85.9	88.5	94.9	99.4	103.2	60.9
80°	58.3	57.7	58.3	59.0	59.0	61.6	66.1	70.6	74.4	74.4	41.7
82.5°	41.0	39.8	41.0	41.0	41.0	42.4	44.8	46.2	48.8	50.7	26.3
85°	25.6	25.6	25.6	26.3	25.6	27.0	27.5	28.9	28.9	27.5	16.1
87.5°	16.6	16.1	16.6	16.1	16.1	15.4	15.4	15.4	14.7	14.1	9.0
90°	3.6	3.6	3.6	3.6	3.6	4.9	6.5	7.3	6.2	4.2	2.7
92.5°	14.5	11.7	14.5	17.4	18.2	25.8	35.9	41.0	36.0	26.0	18.5
95°	50.9	42.1	50.9	59.6	61.8	81.1	106.9	119.8	101.1	64.0	36.0
97.5°	121.7	105.1	121.7	138.3	142.5	154.8	171.1	179.2	148.2	86.1	39.6
100°	175.4	155.5	175.4	195.2	200.2	199.3	198.1	197.5	163.1	94.2	42.5
102.5°	228.1	211.1	228.1	245.1	249.4	233.8	213.1	202.7	167.8	97.9	45.5
105°	295.5	286.3	295.5	304.6	306.9	272.0	225.4	202.1	168.3	100.7	49.9
107.5°	339.6	341.8	339.6	337.4	336.8	288.0	223.1	190.6	160.8	101.1	56.4
110°	356.3	365.9	356.3	346.8	344.4	290.0	217.4	181.1	154.2	100.4	60.0



TEST NUMBER: P933810

CATALOG NUMBER: SQ4-FA-025U-050D-830-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
112.5°	357.8	372.5	357.8	343.2	339.6	283.8	209.6	172.4	148.4	100.4	64.4
115°	348.4	368.6	348.4	328.0	322.9	269.3	197.7	161.9	141.8	101.3	71.0
117.5°	328.2	350.8	328.2	305.7	300.1	251.6	187.1	154.8	137.6	103.2	77.4
120°	312.0	333.8	312.0	290.1	284.7	240.4	181.4	151.8	136.1	104.7	81.2
122.5°	296.2	317.8	296.2	274.6	269.2	229.3	176.2	149.6	135.4	106.9	85.6
125°	273.7	293.6	273.7	253.8	248.8	215.0	169.8	147.2	134.8	109.9	91.3
127.5°	253.4	270.2	253.4	236.7	232.5	203.4	164.6	145.2	134.4	112.9	96.7
130°	241.5	257.0	241.5	226.0	222.2	196.3	161.8	144.5	134.7	115.1	100.4
132.5°	230.7	244.5	230.7	216.8	213.4	190.1	159.3	143.8	134.8	116.8	103.3
135°	215.9	227.8	215.9	203.8	200.9	181.4	155.5	142.6	134.7	118.7	106.8
137.5°	203.9	213.8	203.9	194.2	191.7	175.2	153.3	142.4	135.5	121.6	111.2
140°	195.7	204.9	195.7	186.6	184.3	170.2	151.2	141.8	135.7	123.3	114.1
142.5°	189.0	196.8	189.0	181.2	179.2	166.7	150.1	141.8	136.1	124.9	116.3
145°	178.9	184.8	178.9	172.9	171.4	161.2	147.6	140.8	136.1	126.8	119.7
147.5°	171.0	176.0	171.0	166.2	164.9	156.9	146.2	140.8	137.1	129.5	123.9
150°	166.2	170.2	166.2	162.1	161.2	154.4	145.3	140.8	137.6	131.0	126.1
152.5°	161.9	165.0	161.9	159.0	158.2	152.4	144.6	140.8	137.9	131.9	127.5
155°	157.2	159.2	157.2	155.2	154.7	150.1	143.9	140.8	138.5	134.0	130.7
157.5°	153.3	154.8	153.3	151.9	151.5	148.0	143.2	140.8	139.3	136.1	133.8
160°	151.0	151.8	151.0	150.2	150.0	146.9	142.8	140.8	139.6	137.1	135.3
162.5°	149.5	150.3	149.5	148.8	148.6	146.0	142.5	140.8	140.0	138.1	136.8
165°	147.4	148.2	147.4	146.6	146.4	144.5	142.1	140.8	140.4	139.6	139.0
167.5°	145.8	146.2	145.8	145.5	145.4	144.2	142.5	141.8	141.4	140.7	140.2
170°	145.4	145.4	145.4	145.4	145.4	144.2	142.5	141.8	141.8	141.7	141.7
172.5°	144.3	144.0	144.3	144.5	144.6	143.7	142.4	141.8	141.8	141.8	141.8
175°	143.6	143.6	143.6	143.6	143.6	143.0	142.2	141.8	142.0	142.3	142.6
177.5°	143.0	142.6	143.0	143.3	143.4	142.9	142.3	142.0	142.2	142.4	142.6
180°	142.6	142.6	142.6	142.6	142.6	142.6	142.6	142.6	142.6	142.6	142.6



TEST NUMBER: P933810

CATALOG NUMBER: SQ4-FA-025U-050D-830-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	160°	170°	180°	190°	200°	202.5°	210°	220°	225°	230°	240°
0°	677.7	677.7	677.7	677.7	677.7	677.7	677.7	677.7	677.7	677.7	677.7
2.5°	687.3	683.4	683.4	677.0	674.5	672.5	669.4	659.7	657.2	654.6	658.5
5°	693.1	686.0	680.9	669.4	659.7	655.9	643.7	620.6	605.2	593.7	587.3
7.5°	694.3	685.4	675.8	657.8	634.7	624.5	587.3	545.0	533.4	523.2	516.7
10°	693.1	682.8	669.4	642.4	587.9	570.0	532.8	505.2	498.2	496.3	498.2
12.5°	688.6	679.0	660.4	615.5	539.2	527.0	505.2	489.2	487.9	491.1	508.4
15°	680.9	671.9	650.1	579.6	512.3	503.3	487.9	482.1	489.2	511.7	563.6
17.5°	673.2	663.0	636.0	544.3	491.8	485.4	474.5	486.0	525.7	555.9	573.2
20°	663.0	650.7	620.0	518.7	477.0	471.2	466.1	518.1	548.2	559.1	568.7
22.5°	650.7	637.9	598.2	500.8	461.7	457.2	460.3	536.0	548.2	555.9	564.2
25°	634.7	623.8	572.5	486.6	449.4	444.3	456.5	534.1	541.1	543.0	559.7
27.5°	620.0	605.9	545.6	473.8	434.7	432.8	459.7	525.7	530.9	532.8	550.8
30°	602.0	580.9	515.5	460.3	419.3	418.6	460.3	515.5	514.2	519.3	537.3
32.5°	583.4	543.7	481.5	443.7	404.6	403.9	455.8	500.1	498.8	505.8	519.3
35°	566.1	514.8	435.4	424.5	385.9	386.6	444.9	482.1	482.8	489.2	497.5
37.5°	548.2	489.9	384.7	403.2	368.1	368.1	430.2	465.5	464.2	466.1	477.6
40°	527.0	450.8	339.8	375.7	351.3	349.4	412.2	447.5	443.0	442.4	458.4
42.5°	504.6	407.7	306.5	339.2	332.1	329.5	390.4	425.7	417.4	419.3	439.9
45°	480.2	396.3	280.8	286.6	312.2	310.3	366.7	400.8	394.9	400.1	421.2
47.5°	455.8	373.1	272.5	237.9	291.1	290.4	340.4	376.4	373.1	378.3	400.8
50°	422.6	347.5	271.9	203.9	267.4	269.9	309.1	352.7	352.7	357.2	380.9
52.5°	379.5	316.1	246.8	184.6	239.8	247.5	281.4	332.1	333.4	337.9	359.1
55°	340.4	283.4	228.9	169.9	207.1	223.8	254.5	311.0	313.5	318.0	337.3
57.5°	304.6	235.9	225.0	152.6	177.0	193.0	230.8	290.4	291.7	295.6	314.1
60°	266.1	170.6	206.5	134.0	150.7	162.8	209.0	266.1	270.5	273.1	289.2
62.5°	222.5	123.7	187.2	121.2	137.9	140.4	191.1	243.0	248.8	250.7	260.3
65°	158.4	103.8	159.0	110.3	124.4	125.0	171.8	219.3	224.4	227.6	234.7
67.5°	107.1	84.6	121.2	100.0	114.1	114.7	153.2	191.7	198.8	201.3	205.8
70°	74.4	56.4	89.8	89.1	102.6	103.8	133.4	166.7	173.1	175.0	177.6
72.5°	54.5	45.5	74.4	80.1	90.4	91.7	112.8	138.5	144.9	146.8	148.1
75°	41.7	48.1	60.2	69.9	77.0	77.5	92.3	112.8	117.3	118.6	119.2
77.5°	33.4	44.8	44.3	56.4	62.8	61.6	72.5	87.2	91.0	91.0	91.0
80°	25.0	35.3	33.4	40.4	46.2	44.8	51.9	62.2	63.5	64.7	64.1
82.5°	18.5	22.5	22.5	25.6	30.8	29.5	34.6	40.4	40.4	40.4	41.7
85°	11.6	12.8	10.2	13.5	17.3	16.6	19.2	21.8	22.5	22.5	21.1
87.5°	7.1	5.7	3.3	5.2	7.6	7.6	9.0	9.7	9.0	9.0	9.0
90°	2.5	1.7	1.0	1.7	2.5	2.7	4.2	6.2	7.3	6.5	4.9
92.5°	16.8	10.3	3.8	10.3	16.8	18.5	26.0	36.0	41.0	35.9	25.8
95°	33.1	21.1	9.2	21.1	33.1	36.0	64.0	101.1	119.8	106.9	81.1
97.5°	36.9	26.4	15.9	26.4	36.9	39.6	86.1	148.2	179.2	171.1	154.8
100°	40.2	30.6	21.0	30.6	40.2	42.5	94.2	163.1	197.5	198.1	199.3
102.5°	43.3	34.3	25.4	34.3	43.3	45.5	97.9	167.8	202.7	213.1	233.8
105°	48.0	40.5	33.0	40.5	48.0	49.9	100.7	168.3	202.1	225.4	272.0
107.5°	54.7	47.6	40.6	47.6	54.7	56.4	101.1	160.8	190.6	223.1	288.0
110°	58.4	52.1	45.8	52.1	58.4	60.0	100.4	154.2	181.1	217.4	290.0



TEST NUMBER: P933810

CATALOG NUMBER: SQ4-FA-025U-050D-830-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	160°	170°	180°	190°	200°	202.5°	210°	220°	225°	230°	240°
112.5°	62.9	56.9	50.9	56.9	62.9	64.4	100.4	148.4	172.4	209.6	283.8
115°	69.6	64.1	58.5	64.1	69.6	71.0	101.3	141.8	161.9	197.7	269.3
117.5°	76.2	71.1	66.1	71.1	76.2	77.4	103.2	137.6	154.8	187.1	251.6
120°	80.0	75.2	70.5	75.2	80.0	81.2	104.7	136.1	151.8	181.4	240.4
122.5°	84.3	79.5	74.8	79.5	84.3	85.6	106.9	135.4	149.6	176.2	229.3
125°	90.2	85.8	81.4	85.8	90.2	91.3	109.9	134.8	147.2	169.8	215.0
127.5°	95.6	91.2	86.7	91.2	95.6	96.7	112.9	134.4	145.2	164.6	203.4
130°	99.1	94.4	89.6	94.4	99.1	100.4	115.1	134.7	144.5	161.8	196.3
132.5°	102.2	97.4	92.6	97.4	102.2	103.3	116.8	134.8	143.8	159.3	190.1
135°	105.7	101.3	97.0	101.3	105.7	106.8	118.7	134.7	142.6	155.5	181.4
137.5°	110.1	105.8	101.5	105.8	110.1	111.2	121.6	135.5	142.4	153.3	175.2
140°	113.2	109.2	105.3	109.2	113.2	114.1	123.3	135.7	141.8	151.2	170.2
142.5°	115.4	111.8	108.1	111.8	115.4	116.3	124.9	136.1	141.8	150.1	166.7
145°	118.9	115.7	112.5	115.7	118.9	119.7	126.8	136.1	140.8	147.6	161.2
147.5°	123.1	120.0	116.9	120.0	123.1	123.9	129.5	137.1	140.8	146.2	156.9
150°	125.4	122.6	119.8	122.6	125.4	126.1	131.0	137.6	140.8	145.3	154.4
152.5°	127.0	124.9	122.8	124.9	127.0	127.5	131.9	137.9	140.8	144.6	152.4
155°	130.3	128.7	127.1	128.7	130.3	130.7	134.0	138.5	140.8	143.9	150.1
157.5°	133.5	131.9	130.4	131.9	133.5	133.8	136.1	139.3	140.8	143.2	148.0
160°	135.0	133.7	132.6	133.7	135.0	135.3	137.1	139.6	140.8	142.8	146.9
162.5°	136.6	135.7	134.8	135.7	136.6	136.8	138.1	140.0	140.8	142.5	146.0
165°	138.8	138.0	137.2	138.0	138.8	139.0	139.6	140.4	140.8	142.1	144.5
167.5°	140.1	139.8	139.4	139.8	140.1	140.2	140.7	141.4	141.8	142.5	144.2
170°	141.6	141.2	140.8	141.2	141.6	141.7	141.7	141.8	141.8	142.5	144.2
172.5°	141.8	141.7	141.6	141.7	141.8	141.8	141.8	141.8	141.8	142.4	143.7
175°	142.6	142.6	142.6	142.6	142.6	142.6	142.3	142.0	141.8	142.2	143.0
177.5°	142.6	142.6	142.6	142.6	142.6	142.6	142.4	142.2	142.0	142.3	142.9
180°	142.6	142.6	142.6	142.6	142.6	142.6	142.6	142.6	142.6	142.6	142.6



TEST NUMBER: P933810

CATALOG NUMBER: SQ4-FA-025U-050D-830-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	247.5°	250°	260°	270°	280°	290°	292.5°	300°	310°	315°	320°
0°	677.7	677.7	677.7	677.7	677.7	677.7	677.7	677.7	677.7	677.7	677.7
2.5°	654.0	652.1	654.6	647.6	654.6	652.1	654.0	658.5	654.6	657.2	659.7
5°	573.8	570.6	560.4	552.0	560.4	570.6	573.8	587.3	593.7	605.2	620.6
7.5°	512.9	510.3	507.8	502.7	507.8	510.3	512.9	516.7	523.2	533.4	545.0
10°	499.4	500.1	503.9	503.3	503.9	500.1	499.4	498.2	496.3	498.2	505.2
12.5°	534.1	539.9	561.0	559.7	561.0	539.9	534.1	508.4	491.1	487.9	489.2
15°	573.8	575.7	580.2	580.9	580.2	575.7	573.8	563.6	511.7	489.2	482.1
17.5°	577.7	578.3	581.5	581.5	581.5	578.3	577.7	573.2	555.9	525.7	486.0
20°	574.5	575.7	582.2	583.4	582.2	575.7	574.5	568.7	559.1	548.2	518.1
22.5°	573.2	575.7	580.9	580.2	580.9	575.7	573.2	564.2	555.9	548.2	536.0
25°	566.8	566.8	567.4	568.1	567.4	566.8	566.8	559.7	543.0	541.1	534.1
27.5°	553.3	554.6	558.4	557.8	558.4	554.6	553.3	550.8	532.8	530.9	525.7
30°	541.1	539.9	536.6	534.1	536.6	539.9	541.1	537.3	519.3	514.2	515.5
32.5°	520.6	517.4	514.2	512.3	514.2	517.4	520.6	519.3	505.8	498.8	500.1
35°	496.3	496.9	496.3	494.3	496.3	496.9	496.3	497.5	489.2	482.8	482.1
37.5°	479.0	480.2	479.5	477.0	479.5	480.2	479.0	477.6	466.1	464.2	465.5
40°	461.0	461.7	461.0	459.1	461.0	461.7	461.0	458.4	442.4	443.0	447.5
42.5°	443.7	443.0	441.1	439.9	441.1	443.0	443.7	439.9	419.3	417.4	425.7
45°	423.8	424.5	420.5	418.6	420.5	424.5	423.8	421.2	400.1	394.9	400.8
47.5°	403.9	403.9	400.8	398.7	400.8	403.9	403.9	400.8	378.3	373.1	376.4
50°	382.8	382.1	377.6	377.0	377.6	382.1	382.8	380.9	357.2	352.7	352.7
52.5°	358.4	358.4	359.1	360.3	359.1	358.4	358.4	359.1	337.9	333.4	332.1
55°	337.3	337.9	342.3	343.7	342.3	337.9	337.3	337.3	318.0	313.5	311.0
57.5°	315.5	315.5	318.6	318.6	318.6	315.5	315.5	314.1	295.6	291.7	290.4
60°	290.4	291.7	294.3	293.7	294.3	291.7	290.4	289.2	273.1	270.5	266.1
62.5°	264.1	265.5	266.1	264.8	266.1	265.5	264.1	260.3	250.7	248.8	243.0
65°	236.6	237.9	238.5	237.2	238.5	237.9	236.6	234.7	227.6	224.4	219.3
67.5°	208.4	207.7	207.1	209.7	207.1	207.7	208.4	205.8	201.3	198.8	191.7
70°	179.5	179.5	178.9	180.2	178.9	179.5	179.5	177.6	175.0	173.1	166.7
72.5°	148.8	148.1	150.7	148.8	150.7	148.1	148.8	148.1	146.8	144.9	138.5
75°	118.6	119.9	118.6	120.6	118.6	119.9	118.6	119.2	118.6	117.3	112.8
77.5°	90.4	91.7	90.4	90.4	90.4	91.7	90.4	91.0	91.0	91.0	87.2
80°	64.1	63.5	63.5	62.8	63.5	63.5	64.1	64.1	64.7	63.5	62.2
82.5°	41.0	40.4	40.4	41.7	40.4	40.4	41.0	41.7	40.4	40.4	40.4
85°	22.5	23.0	21.8	21.8	21.8	23.0	22.5	21.1	22.5	22.5	21.8
87.5°	8.3	7.6	7.6	7.6	7.6	7.6	8.3	9.0	9.0	9.0	9.7
90°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	4.9	6.5	7.3	6.2
92.5°	18.2	17.4	14.5	11.7	14.5	17.4	18.2	25.8	35.9	41.0	36.0
95°	61.8	59.6	50.9	42.1	50.9	59.6	61.8	81.1	106.9	119.8	101.1
97.5°	142.5	138.3	121.7	105.1	121.7	138.3	142.5	154.8	171.1	179.2	148.2
100°	200.2	195.2	175.4	155.5	175.4	195.2	200.2	199.3	198.1	197.5	163.1
102.5°	249.4	245.1	228.1	211.1	228.1	245.1	249.4	233.8	213.1	202.7	167.8
105°	306.9	304.6	295.5	286.3	295.5	304.6	306.9	272.0	225.4	202.1	168.3
107.5°	336.8	337.4	339.6	341.8	339.6	337.4	336.8	288.0	223.1	190.6	160.8
110°	344.4	346.8	356.3	365.9	356.3	346.8	344.4	290.0	217.4	181.1	154.2



TEST NUMBER: P933810

CATALOG NUMBER: SQ4-FA-025U-050D-830-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	247.5°	250°	260°	270°	280°	290°	292.5°	300°	310°	315°	320°
112.5°	339.6	343.2	357.8	372.5	357.8	343.2	339.6	283.8	209.6	172.4	148.4
115°	322.9	328.0	348.4	368.6	348.4	328.0	322.9	269.3	197.7	161.9	141.8
117.5°	300.1	305.7	328.2	350.8	328.2	305.7	300.1	251.6	187.1	154.8	137.6
120°	284.7	290.1	312.0	333.8	312.0	290.1	284.7	240.4	181.4	151.8	136.1
122.5°	269.2	274.6	296.2	317.8	296.2	274.6	269.2	229.3	176.2	149.6	135.4
125°	248.8	253.8	273.7	293.6	273.7	253.8	248.8	215.0	169.8	147.2	134.8
127.5°	232.5	236.7	253.4	270.2	253.4	236.7	232.5	203.4	164.6	145.2	134.4
130°	222.2	226.0	241.5	257.0	241.5	226.0	222.2	196.3	161.8	144.5	134.7
132.5°	213.4	216.8	230.7	244.5	230.7	216.8	213.4	190.1	159.3	143.8	134.8
135°	200.9	203.8	215.9	227.8	215.9	203.8	200.9	181.4	155.5	142.6	134.7
137.5°	191.7	194.2	203.9	213.8	203.9	194.2	191.7	175.2	153.3	142.4	135.5
140°	184.3	186.6	195.7	204.9	195.7	186.6	184.3	170.2	151.2	141.8	135.7
142.5°	179.2	181.2	189.0	196.8	189.0	181.2	179.2	166.7	150.1	141.8	136.1
145°	171.4	172.9	178.9	184.8	178.9	172.9	171.4	161.2	147.6	140.8	136.1
147.5°	164.9	166.2	171.0	176.0	171.0	166.2	164.9	156.9	146.2	140.8	137.1
150°	161.2	162.1	166.2	170.2	166.2	162.1	161.2	154.4	145.3	140.8	137.6
152.5°	158.2	159.0	161.9	165.0	161.9	159.0	158.2	152.4	144.6	140.8	137.9
155°	154.7	155.2	157.2	159.2	157.2	155.2	154.7	150.1	143.9	140.8	138.5
157.5°	151.5	151.9	153.3	154.8	153.3	151.9	151.5	148.0	143.2	140.8	139.3
160°	150.0	150.2	151.0	151.8	151.0	150.2	150.0	146.9	142.8	140.8	139.6
162.5°	148.6	148.8	149.5	150.3	149.5	148.8	148.6	146.0	142.5	140.8	140.0
165°	146.4	146.6	147.4	148.2	147.4	146.6	146.4	144.5	142.1	140.8	140.4
167.5°	145.4	145.5	145.8	146.2	145.8	145.5	145.4	144.2	142.5	141.8	141.4
170°	145.4	145.4	145.4	145.4	145.4	145.4	145.4	144.2	142.5	141.8	141.8
172.5°	144.6	144.5	144.3	144.0	144.3	144.5	144.6	143.7	142.4	141.8	141.8
175°	143.6	143.6	143.6	143.6	143.6	143.6	143.6	143.0	142.2	141.8	142.0
177.5°	143.4	143.3	143.0	142.6	143.0	143.3	143.4	142.9	142.3	142.0	142.2
180°	142.6	142.6	142.6	142.6	142.6	142.6	142.6	142.6	142.6	142.6	142.6



TEST NUMBER: P933810

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CANDELA DISTRIBUTION (continued):

	330°	337.5°	340°	350°	360°
0°	677.7	677.7	677.7	677.7	677.7
2.5°	669.4	672.5	674.5	677.0	683.4
5°	643.7	655.9	659.7	669.4	680.9
7.5°	587.3	624.5	634.7	657.8	675.8
10°	532.8	570.0	587.9	642.4	669.4
12.5°	505.2	527.0	539.2	615.5	660.4
15°	487.9	503.3	512.3	579.6	650.1
17.5°	474.5	485.4	491.8	544.3	636.0
20°	466.1	471.2	477.0	518.7	620.0
22.5°	460.3	457.2	461.7	500.8	598.2
25°	456.5	444.3	449.4	486.6	572.5
27.5°	459.7	432.8	434.7	473.8	545.6
30°	460.3	418.6	419.3	460.3	515.5
32.5°	455.8	403.9	404.6	443.7	481.5
35°	444.9	386.6	385.9	424.5	435.4
37.5°	430.2	368.1	368.1	403.2	384.7
40°	412.2	349.4	351.3	375.7	339.8
42.5°	390.4	329.5	332.1	339.2	306.5
45°	366.7	310.3	312.2	286.6	280.8
47.5°	340.4	290.4	291.1	237.9	272.5
50°	309.1	269.9	267.4	203.9	271.9
52.5°	281.4	247.5	239.8	184.6	246.8
55°	254.5	223.8	207.1	169.9	228.9
57.5°	230.8	193.0	177.0	152.6	225.0
60°	209.0	162.8	150.7	134.0	206.5
62.5°	191.1	140.4	137.9	121.2	187.2
65°	171.8	125.0	124.4	110.3	159.0
67.5°	153.2	114.7	114.1	100.0	121.2
70°	133.4	103.8	102.6	89.1	89.8
72.5°	112.8	91.7	90.4	80.1	74.4
75°	92.3	77.5	77.0	69.9	60.2
77.5°	72.5	61.6	62.8	56.4	44.3
80°	51.9	44.8	46.2	40.4	33.4
82.5°	34.6	29.5	30.8	25.6	22.5
85°	19.2	16.6	17.3	13.5	10.2
87.5°	9.0	7.6	7.6	5.2	3.3
90°	4.2	2.7	2.5	1.7	1.0
92.5°	26.0	18.5	16.8	10.3	3.8
95°	64.0	36.0	33.1	21.1	9.2
97.5°	86.1	39.6	36.9	26.4	15.9
100°	94.2	42.5	40.2	30.6	21.0
102.5°	97.9	45.5	43.3	34.3	25.4
105°	100.7	49.9	48.0	40.5	33.0
107.5°	101.1	56.4	54.7	47.6	40.6
110°	100.4	60.0	58.4	52.1	45.8



TEST NUMBER: P933810

CATALOG NUMBER: SQ4-FA-025U-050D-830-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	330°	337.5°	340°	350°	360°
112.5°	100.4	64.4	62.9	56.9	50.9
115°	101.3	71.0	69.6	64.1	58.5
117.5°	103.2	77.4	76.2	71.1	66.1
120°	104.7	81.2	80.0	75.2	70.5
122.5°	106.9	85.6	84.3	79.5	74.8
125°	109.9	91.3	90.2	85.8	81.4
127.5°	112.9	96.7	95.6	91.2	86.7
130°	115.1	100.4	99.1	94.4	89.6
132.5°	116.8	103.3	102.2	97.4	92.6
135°	118.7	106.8	105.7	101.3	97.0
137.5°	121.6	111.2	110.1	105.8	101.5
140°	123.3	114.1	113.2	109.2	105.3
142.5°	124.9	116.3	115.4	111.8	108.1
145°	126.8	119.7	118.9	115.7	112.5
147.5°	129.5	123.9	123.1	120.0	116.9
150°	131.0	126.1	125.4	122.6	119.8
152.5°	131.9	127.5	127.0	124.9	122.8
155°	134.0	130.7	130.3	128.7	127.1
157.5°	136.1	133.8	133.5	131.9	130.4
160°	137.1	135.3	135.0	133.7	132.6
162.5°	138.1	136.8	136.6	135.7	134.8
165°	139.6	139.0	138.8	138.0	137.2
167.5°	140.7	140.2	140.1	139.8	139.4
170°	141.7	141.7	141.6	141.2	140.8
172.5°	141.8	141.8	141.8	141.7	141.6
175°	142.3	142.6	142.6	142.6	142.6
177.5°	142.4	142.6	142.6	142.6	142.6
180°	142.6	142.6	142.6	142.6	142.6



TEST NUMBER: P933810
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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	12.50	13.52	13.32	14.36	15.39	15.30	16.32	16.11	17.16	18.19
	3H	12.99	13.91	13.82	14.75	15.81	16.65	17.56	17.47	18.41	19.47
	4H	13.19	14.06	14.03	14.91	15.98	17.09	17.96	17.94	18.81	19.88
	6H	13.32	14.12	14.17	14.98	16.06	17.38	18.18	18.23	19.03	20.12
	8H	13.33	14.08	14.19	14.96	16.05	17.45	18.21	18.32	19.09	20.17
	12H	13.30	14.03	14.17	14.90	16.01	17.49	18.22	18.36	19.09	20.20
4H	2H	13.55	14.41	14.39	15.26	16.33	15.73	16.60	16.58	17.45	18.52
	3H	14.59	15.31	15.45	16.19	17.28	17.24	17.96	18.10	18.85	19.93
	4H	14.87	15.53	15.74	16.41	17.52	17.77	18.43	18.64	19.31	20.42
	6H	15.01	15.57	15.89	16.48	17.59	18.14	18.70	19.02	19.61	20.72
	8H	15.02	15.55	15.91	16.45	17.57	18.24	18.77	19.13	19.67	20.80
	12H	14.99	15.47	15.90	16.39	17.52	18.30	18.78	19.21	19.70	20.83
8H	4H	15.33	15.86	16.22	16.76	17.89	17.91	18.44	18.80	19.34	20.47
	6H	15.60	16.04	16.52	16.98	18.11	18.34	18.78	19.26	19.72	20.85
	8H	15.65	16.03	16.57	16.97	18.11	18.49	18.88	19.42	19.81	20.96
	12H	15.64	15.98	16.57	16.91	18.10	18.59	18.93	19.52	19.86	21.06
12H	4H	15.35	15.82	16.25	16.74	17.88	17.88	18.36	18.79	19.28	20.41
	6H	15.66	16.05	16.59	16.98	18.13	18.34	18.73	19.27	19.66	20.81
	8H	15.74	16.08	16.67	17.00	18.20	18.51	18.85	19.43	19.77	20.97