

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: P933851

Luminaire Tested: SQ4-FA-025U-050D-930-1D-UNV-STD-W-6

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P933851
REPORT IS A COMBINATION OF REPORTS P933675 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FA-025U-050D-930-1D-UNV-STD-W-6
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Asymmetric Frosted Continuous I
Lens
Light Source: -
Ballast/Driver: -

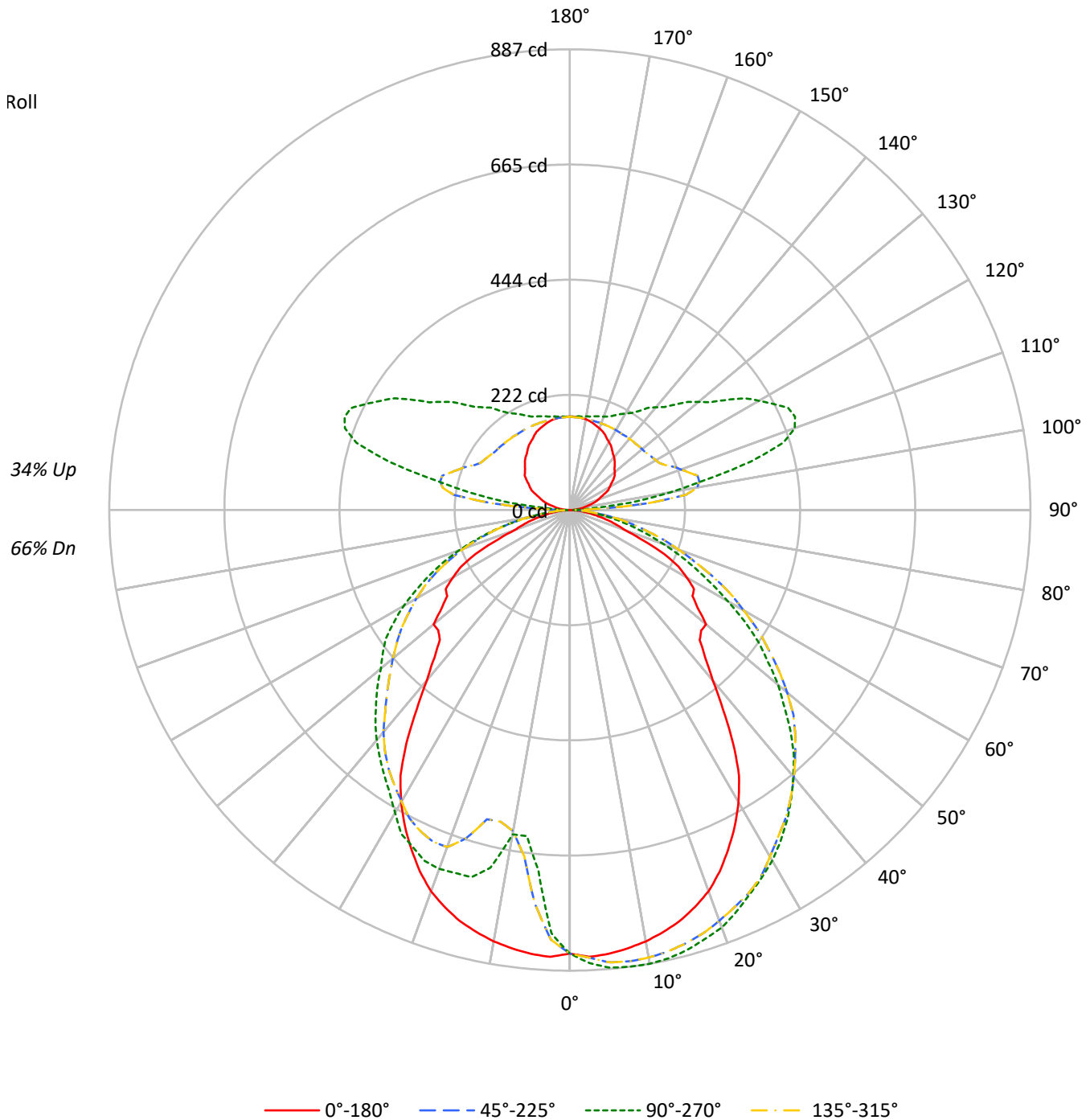
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3379.8 lumens
Efficiency: N/A
Efficacy: 102.4 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 6' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 33
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				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°	5282	5282	5282	5282
5°	5319	5332	5319	4192
10°	5282	5252	5282	3755
15°	5223	5139	5223	4291
20°	5112	5003	5112	4300
25°	4885	4807	4885	4208
30°	4595	4644	4595	4009
35°	4094	4437	4094	3789
40°	3410	4194	3410	3623
45°	3044	3910	3044	3432
50°	3232	3571	3232	3240
55°	3038	3205	3038	3129
60°	3128	2722	3128	2865
65°	2831	2250	2831	2515
70°	1956	1793	1956	2108
75°	1710	1325	1710	1587
80°	1367	876	1367	955
85°	769	464	769	395

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 20°
 Vertical Angle: 45°
 Luminance: 4670 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.1	2.3
10°-20°	218.8	6.5
20°-30°	338.3	10.0
30°-40°	403.8	11.9
40°-50°	406.2	12.0
50°-60°	353.4	10.5
60°-70°	250.6	7.4
70°-80°	132.6	3.9
80°-90°	33.7	1.0
90°-100°	87.6	2.6
100°-110°	230.4	6.8
110°-120°	238.9	7.1
120°-130°	191.6	5.7
130°-140°	150.3	4.4
140°-150°	115.4	3.4
150°-160°	83.1	2.5
160°-170°	50.8	1.5
170°-180°	17.2	0.5
0°-30°	634.2	18.8
0°-40°	1038.0	30.7
0°-60°	1797.7	53.2
0°-90°	2214.6	65.5
90°-120°	556.8	16.5
90°-150°	1014.1	30.0
90°-180°	1165.0	34.5
0°-180°	3379.8	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	854	854	854	854	854	
5°	858	884	858	696	858	81
15°	819	876	819	732	819	230
25°	721	818	721	716	721	331
35°	548	729	548	623	548	339
45°	354	601	354	528	354	283
55°	288	444	288	433	288	265
65°	200	267	200	299	200	191
75°	76	127	76	152	76	80
85°	13	32	13	28	13	17
90°	1	5	1	5	1	2
95°	12	53	12	53	12	13
105°	42	361	42	361	42	44
115°	74	464	74	464	74	73
125°	102	370	102	370	102	91
135°	122	287	122	287	122	95
145°	142	233	142	233	142	89
155°	160	200	160	200	160	74
165°	173	187	173	187	173	49
175°	180	181	180	181	180	17
180°	180	180	180	180	180	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	853.8	853.8	853.8	853.8	853.8	853.8	853.8	853.8	853.8	853.8	853.8
2.5°	861.1	861.1	866.0	867.6	867.6	865.2	862.7	865.2	872.5	874.9	874.1
5°	857.8	864.3	873.3	874.9	876.5	875.7	874.1	875.7	883.7	885.4	886.2
7.5°	851.4	863.5	874.9	877.3	879.7	877.3	876.5	878.1	886.2	887.8	887.8
10°	843.3	860.3	873.3	874.9	877.3	874.9	874.9	878.1	886.2	887.8	888.6
12.5°	832.1	855.4	867.6	869.2	872.5	871.7	870.8	874.1	882.1	883.7	883.7
15°	819.1	846.6	857.8	859.5	865.2	863.5	863.5	866.8	875.7	878.1	877.3
17.5°	801.3	835.3	848.2	850.6	854.6	853.8	854.6	857.8	866.0	867.6	868.4
20°	781.2	819.9	835.3	837.7	841.7	841.7	841.7	845.8	853.8	857.0	857.0
22.5°	753.7	803.7	819.9	821.5	826.4	826.4	828.0	833.7	840.9	841.7	841.7
25°	721.3	786.0	799.7	804.6	809.4	811.8	814.2	817.5	819.9	819.1	819.9
27.5°	687.4	763.3	781.2	784.4	790.9	793.3	796.5	797.3	798.1	800.5	798.9
30°	649.5	731.9	758.5	761.7	772.2	773.9	770.6	772.2	776.3	777.9	779.6
32.5°	606.7	685.0	735.1	742.4	752.1	747.2	746.4	748.8	755.3	755.3	756.9
35°	548.5	648.7	713.3	719.7	727.0	721.3	724.6	725.4	729.4	731.9	731.1
37.5°	484.7	617.2	690.7	695.5	701.2	693.9	698.8	701.2	704.4	702.8	702.8
40°	428.2	567.9	664.0	667.2	672.1	666.4	671.3	672.9	674.5	672.9	672.1
42.5°	386.2	513.8	635.7	639.8	636.5	640.6	642.2	645.5	643.0	639.8	639.8
45°	353.8	499.2	605.1	609.9	605.1	611.5	613.9	613.9	606.7	605.1	604.3
47.5°	343.3	470.2	574.4	574.4	571.9	580.0	584.0	578.4	571.1	568.7	568.7
50°	342.5	437.8	532.3	529.1	540.4	550.1	546.0	540.4	534.8	525.9	525.9
52.5°	311.0	398.2	478.2	490.3	508.1	513.8	507.3	501.6	491.9	487.9	484.7
55°	288.4	357.0	429.0	453.2	471.8	479.0	466.9	461.2	446.7	444.3	442.7
57.5°	283.5	297.3	383.7	414.4	437.0	436.2	429.0	418.4	406.3	403.9	403.1
60°	260.1	214.9	335.3	371.6	395.0	392.6	386.2	376.4	365.1	363.5	361.9
62.5°	235.8	155.9	280.3	321.5	354.6	353.8	348.2	333.6	325.5	321.5	318.3
65°	200.3	130.9	199.5	267.4	315.0	316.6	304.6	294.1	285.1	280.3	279.5
67.5°	152.7	106.6	134.9	223.0	277.1	275.4	260.1	255.3	244.0	241.5	236.7
70°	113.1	71.1	93.7	180.9	239.9	235.8	223.8	218.1	207.6	202.0	198.7
72.5°	93.7	57.3	68.7	140.5	202.0	197.1	186.6	180.1	171.3	166.4	163.2
75°	76.0	60.5	52.5	104.2	164.0	160.8	151.0	144.6	137.3	130.9	131.7
77.5°	55.7	56.5	42.0	76.8	130.1	125.2	119.6	111.5	108.2	101.8	101.8
80°	42.0	44.4	31.5	52.5	93.7	93.7	88.9	83.2	77.6	74.4	74.4
82.5°	28.3	28.3	23.4	33.1	63.8	61.4	58.1	56.5	53.3	51.7	51.7
85°	12.9	16.1	14.5	20.2	34.8	36.4	36.4	34.8	34.0	32.3	33.1
87.5°	4.0	7.3	8.9	11.3	17.7	18.5	19.4	19.4	19.4	20.2	20.2
90°	1.2	2.2	3.1	3.4	5.3	7.9	9.2	8.1	6.1	4.6	4.6
92.5°	4.8	13.0	21.2	23.3	32.8	45.4	51.6	45.2	32.4	22.9	22.0
95°	11.6	26.6	41.6	45.4	80.5	127.4	150.9	134.7	102.1	77.8	75.1
97.5°	20.0	33.2	46.5	49.8	108.5	186.7	225.8	215.5	195.0	179.6	174.4
100°	26.6	38.5	50.6	53.6	118.7	205.5	248.8	249.6	251.1	252.2	246.0
102.5°	32.1	43.4	54.5	57.3	123.3	211.3	255.4	268.4	294.6	314.3	308.9
105°	41.5	51.0	60.5	62.9	126.8	212.0	254.6	283.9	342.6	386.6	383.8
107.5°	51.2	60.0	68.8	71.1	127.4	202.6	240.2	281.1	363.0	424.3	425.0
110°	57.7	65.7	73.6	75.6	126.5	194.2	228.1	273.9	365.4	433.9	436.9



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	64.1	71.7	79.3	81.2	126.5	186.9	217.1	263.9	357.6	427.8	432.3
115°	73.7	80.8	87.8	89.5	127.7	178.5	204.0	249.1	339.3	406.9	413.3
117.5°	83.3	89.6	96.0	97.6	130.0	173.3	195.0	235.7	317.0	378.1	385.1
120°	88.8	94.8	100.8	102.3	132.0	171.6	191.4	228.5	302.9	358.7	365.6
122.5°	94.2	100.3	106.3	107.8	134.7	170.6	188.5	222.0	289.0	339.3	346.1
125°	102.5	108.1	113.6	115.0	138.5	169.9	185.6	214.0	270.9	313.6	319.8
127.5°	109.3	114.8	120.4	121.8	142.2	169.4	183.0	207.4	256.3	292.9	298.2
130°	112.9	118.9	124.9	126.4	144.9	169.7	182.0	203.8	247.2	279.8	284.7
132.5°	116.7	122.7	128.6	130.2	147.2	169.9	181.2	200.7	239.6	268.8	273.1
135°	122.2	127.7	133.1	134.5	149.6	169.8	179.8	196.1	228.7	253.1	256.9
137.5°	127.9	133.3	138.7	140.0	153.2	170.8	179.6	193.4	220.9	241.5	244.6
140°	132.6	137.6	142.5	143.8	155.5	171.0	178.7	190.6	214.4	232.2	235.1
142.5°	136.2	140.8	145.4	146.5	157.2	171.5	178.7	189.1	210.1	225.7	228.2
145°	141.7	145.7	149.8	150.8	159.7	171.5	177.5	186.0	203.1	215.9	217.8
147.5°	147.3	151.2	155.1	156.1	163.2	172.7	177.5	184.2	197.6	207.7	209.3
150°	150.9	154.4	158.0	158.9	165.1	173.4	177.5	183.2	194.5	203.0	204.3
152.5°	154.7	157.3	160.0	160.7	166.3	173.8	177.5	182.3	192.0	199.3	200.3
155°	160.2	162.2	164.2	164.7	169.0	174.7	177.5	181.3	189.0	194.8	195.5
157.5°	164.3	166.2	168.1	168.6	171.6	175.5	177.5	180.4	186.5	191.0	191.4
160°	167.1	168.6	170.1	170.5	172.8	175.9	177.5	180.0	185.2	189.0	189.3
162.5°	169.8	171.0	172.1	172.4	174.1	176.3	177.5	179.6	184.0	187.3	187.5
165°	172.9	173.8	174.9	175.1	175.9	177.0	177.5	179.0	182.1	184.4	184.7
167.5°	175.6	176.1	176.6	176.7	177.4	178.3	178.7	179.7	181.7	183.2	183.3
170°	177.5	177.9	178.4	178.5	178.6	178.7	178.7	179.7	181.7	183.2	183.2
172.5°	178.4	178.5	178.7	178.7	178.7	178.7	178.7	179.5	181.1	182.3	182.2
175°	179.8	179.8	179.8	179.8	179.4	178.9	178.7	179.1	180.2	181.0	181.0
177.5°	179.8	179.8	179.8	179.8	179.5	179.1	178.9	179.3	180.1	180.8	180.7
180°	179.8	179.8	179.8	179.8	179.8	179.8	179.8	179.8	179.8	179.8	179.8



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CANDELA DISTRIBUTION (continued):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
0°	853.8	853.8	853.8	853.8	853.8	853.8	853.8	853.8	853.8	853.8	853.8
2.5°	875.7	873.3	875.7	874.1	874.9	872.5	865.2	862.7	865.2	867.6	867.6
5°	886.2	884.5	886.2	886.2	885.4	883.7	875.7	874.1	875.7	876.5	874.9
7.5°	889.4	887.0	889.4	887.8	887.8	886.2	878.1	876.5	877.3	879.7	877.3
10°	889.4	887.0	889.4	888.6	887.8	886.2	878.1	874.9	874.9	877.3	874.9
12.5°	885.4	883.7	885.4	883.7	883.7	882.1	874.1	870.8	871.7	872.5	869.2
15°	878.9	876.5	878.9	877.3	878.1	875.7	866.8	863.5	863.5	865.2	859.5
17.5°	869.2	866.0	869.2	868.4	867.6	866.0	857.8	854.6	853.8	854.6	850.6
20°	857.8	855.4	857.8	857.0	857.0	853.8	845.8	841.7	841.7	841.7	837.7
22.5°	840.1	837.7	840.1	841.7	841.7	840.9	833.7	828.0	826.4	826.4	821.5
25°	819.9	817.5	819.9	819.9	819.1	819.9	817.5	814.2	811.8	809.4	804.6
27.5°	800.5	798.9	800.5	798.9	800.5	798.1	797.3	796.5	793.3	790.9	784.4
30°	781.2	779.6	781.2	779.6	777.9	776.3	772.2	770.6	773.9	772.2	761.7
32.5°	756.9	755.3	756.9	756.9	755.3	755.3	748.8	746.4	747.2	752.1	742.4
35°	731.9	729.4	731.9	731.1	731.9	729.4	725.4	724.6	721.3	727.0	719.7
37.5°	702.8	700.4	702.8	702.8	702.8	704.4	701.2	698.8	693.9	701.2	695.5
40°	672.9	669.7	672.9	672.1	672.9	674.5	672.9	671.3	666.4	672.1	667.2
42.5°	638.9	638.1	638.9	639.8	639.8	643.0	645.5	642.2	640.6	636.5	639.8
45°	602.7	601.0	602.7	604.3	605.1	606.7	613.9	613.9	611.5	605.1	609.9
47.5°	563.9	559.8	563.9	568.7	568.7	571.1	578.4	584.0	580.0	571.9	574.4
50°	522.7	523.5	522.7	525.9	525.9	534.8	540.4	546.0	550.1	540.4	529.1
52.5°	482.3	481.5	482.3	484.7	487.9	491.9	501.6	507.3	513.8	508.1	490.3
55°	441.9	443.5	441.9	442.7	444.3	446.7	461.2	466.9	479.0	471.8	453.2
57.5°	401.5	399.1	401.5	403.1	403.9	406.3	418.4	429.0	436.2	437.0	414.4
60°	354.6	351.4	354.6	361.9	363.5	365.1	376.4	386.2	392.6	395.0	371.6
62.5°	313.4	307.8	313.4	318.3	321.5	325.5	333.6	348.2	353.8	354.6	321.5
65°	269.8	267.4	269.8	279.5	280.3	285.1	294.1	304.6	316.6	315.0	267.4
67.5°	230.2	230.2	230.2	236.7	241.5	244.0	255.3	260.1	275.4	277.1	223.0
70°	193.8	193.0	193.8	198.7	202.0	207.6	218.1	223.8	235.8	239.9	180.9
72.5°	159.2	158.4	159.2	163.2	166.4	171.3	180.1	186.6	197.1	202.0	140.5
75°	128.5	126.8	128.5	131.7	130.9	137.3	144.6	151.0	160.8	164.0	104.2
77.5°	98.5	98.5	98.5	101.8	101.8	108.2	111.5	119.6	125.2	130.1	76.8
80°	73.5	72.7	73.5	74.4	74.4	77.6	83.2	88.9	93.7	93.7	52.5
82.5°	51.7	50.1	51.7	51.7	51.7	53.3	56.5	58.1	61.4	63.8	33.1
85°	32.3	32.3	32.3	33.1	32.3	34.0	34.8	36.4	36.4	34.8	20.2
87.5°	21.0	20.2	21.0	20.2	20.2	19.4	19.4	19.4	18.5	17.7	11.3
90°	4.6	4.6	4.6	4.6	4.6	6.1	8.1	9.2	7.9	5.3	3.4
92.5°	18.3	14.7	18.3	22.0	22.9	32.4	45.2	51.6	45.4	32.8	23.3
95°	64.0	53.0	64.0	75.1	77.8	102.1	134.7	150.9	127.4	80.5	45.4
97.5°	153.4	132.3	153.4	174.4	179.6	195.0	215.5	225.8	186.7	108.5	49.8
100°	221.0	195.9	221.0	246.0	252.2	251.1	249.6	248.8	205.5	118.7	53.6
102.5°	287.5	266.0	287.5	308.9	314.3	294.6	268.4	255.4	211.3	123.3	57.3
105°	372.3	360.7	372.3	383.8	386.6	342.6	283.9	254.6	212.0	126.8	62.9
107.5°	427.8	430.6	427.8	425.0	424.3	363.0	281.1	240.2	202.6	127.4	71.1
110°	449.0	461.0	449.0	436.9	433.9	365.4	273.9	228.1	194.2	126.5	75.6



TEST NUMBER: P933851

CATALOG NUMBER: SQ4-FA-025U-050D-930-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (continued):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
112.5°	450.8	469.3	450.8	432.3	427.8	357.6	263.9	217.1	186.9	126.5	81.2
115°	438.8	464.5	438.8	413.3	406.9	339.3	249.1	204.0	178.5	127.7	89.5
117.5°	413.5	441.9	413.5	385.1	378.1	317.0	235.7	195.0	173.3	130.0	97.6
120°	393.1	420.7	393.1	365.6	358.7	302.9	228.5	191.4	171.6	132.0	102.3
122.5°	373.2	400.4	373.2	346.1	339.3	289.0	222.0	188.5	170.6	134.7	107.8
125°	344.8	369.9	344.8	319.8	313.6	270.9	214.0	185.6	169.9	138.5	115.0
127.5°	319.4	340.5	319.4	298.2	292.9	256.3	207.4	183.0	169.4	142.2	121.8
130°	304.3	323.8	304.3	284.7	279.8	247.2	203.8	182.0	169.7	144.9	126.4
132.5°	290.6	308.1	290.6	273.1	268.8	239.6	200.7	181.2	169.9	147.2	130.2
135°	271.9	287.0	271.9	256.9	253.1	228.7	196.1	179.8	169.8	149.6	134.5
137.5°	257.0	269.2	257.0	244.6	241.5	220.9	193.4	179.6	170.8	153.2	140.0
140°	246.6	258.2	246.6	235.1	232.2	214.4	190.6	178.7	171.0	155.5	143.8
142.5°	238.1	248.0	238.1	228.2	225.7	210.1	189.1	178.7	171.5	157.2	146.5
145°	225.3	232.9	225.3	217.8	215.9	203.1	186.0	177.5	171.5	159.7	150.8
147.5°	215.5	221.7	215.5	209.3	207.7	197.6	184.2	177.5	172.7	163.2	156.1
150°	209.3	214.4	209.3	204.3	203.0	194.5	183.2	177.5	173.4	165.1	158.9
152.5°	204.0	207.9	204.0	200.3	199.3	192.0	182.3	177.5	173.8	166.3	160.7
155°	197.9	200.5	197.9	195.5	194.8	189.0	181.3	177.5	174.7	169.0	164.7
157.5°	193.2	195.0	193.2	191.4	191.0	186.5	180.4	177.5	175.5	171.6	168.6
160°	190.3	191.4	190.3	189.3	189.0	185.2	180.0	177.5	175.9	172.8	170.5
162.5°	188.5	189.4	188.5	187.5	187.3	184.0	179.6	177.5	176.3	174.1	172.4
165°	185.7	186.8	185.7	184.7	184.4	182.1	179.0	177.5	177.0	175.9	175.1
167.5°	183.8	184.2	183.8	183.3	183.2	181.7	179.7	178.7	178.3	177.4	176.7
170°	183.2	183.2	183.2	183.2	183.2	181.7	179.7	178.7	178.7	178.6	178.5
172.5°	181.8	181.5	181.8	182.2	182.3	181.1	179.5	178.7	178.7	178.7	178.7
175°	181.0	181.0	181.0	181.0	181.0	180.2	179.1	178.7	178.9	179.4	179.8
177.5°	180.2	179.8	180.2	180.7	180.8	180.1	179.3	178.9	179.1	179.5	179.8
180°	179.8	179.8	179.8	179.8	179.8	179.8	179.8	179.8	179.8	179.8	179.8



TEST NUMBER: P933851

CATALOG NUMBER: SQ4-FA-025U-050D-930-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (continued):

	160°	170°	180°	190°	200°	202.5°	210°	220°	225°	230°	240°
0°	853.8	853.8	853.8	853.8	853.8	853.8	853.8	853.8	853.8	853.8	853.8
2.5°	866.0	861.1	861.1	853.0	849.8	847.4	843.3	831.3	828.0	824.8	829.6
5°	873.3	864.3	857.8	843.3	831.3	826.4	811.0	782.0	762.5	748.0	740.0
7.5°	874.9	863.5	851.4	828.8	799.7	786.8	740.0	686.6	672.1	659.2	651.1
10°	873.3	860.3	843.3	809.4	740.8	718.1	671.3	636.5	627.6	625.2	627.6
12.5°	867.6	855.4	832.1	775.5	679.3	664.0	636.5	616.4	614.7	618.8	640.6
15°	857.8	846.6	819.1	730.2	645.5	634.1	614.7	607.5	616.4	644.6	710.1
17.5°	848.2	835.3	801.3	685.8	619.6	611.5	597.8	612.3	662.4	700.4	722.1
20°	835.3	819.9	781.2	653.5	601.0	593.7	587.2	652.7	690.7	704.4	716.5
22.5°	819.9	803.7	753.7	630.9	581.6	576.0	580.0	675.3	690.7	700.4	710.9
25°	799.7	786.0	721.3	613.1	566.3	559.8	575.2	672.9	681.7	684.2	705.2
27.5°	781.2	763.3	687.4	597.0	547.7	545.2	579.2	662.4	668.9	671.3	693.9
30°	758.5	731.9	649.5	580.0	528.3	527.5	580.0	649.5	647.9	654.3	676.9
32.5°	735.1	685.0	606.7	559.0	509.7	508.9	574.4	630.1	628.5	637.3	654.3
35°	713.3	648.7	548.5	534.8	486.3	487.1	560.6	607.5	608.3	616.4	626.8
37.5°	690.7	617.2	484.7	508.1	463.7	463.7	542.0	586.4	584.8	587.2	601.8
40°	664.0	567.9	428.2	473.4	442.7	440.3	519.4	563.9	558.2	557.4	577.6
42.5°	635.7	513.8	386.2	427.4	418.4	415.2	491.9	536.4	525.9	528.3	554.2
45°	605.1	499.2	353.8	361.1	393.4	391.0	462.0	504.8	497.6	504.0	530.7
47.5°	574.4	470.2	343.3	299.7	366.7	365.9	429.0	474.2	470.2	476.6	504.8
50°	532.3	437.8	342.5	256.9	336.9	340.1	389.4	444.3	444.3	449.9	479.9
52.5°	478.2	398.2	311.0	232.6	302.1	311.8	354.6	418.4	420.0	425.8	452.3
55°	429.0	357.0	288.4	214.1	260.9	281.9	320.7	391.8	395.0	400.7	424.9
57.5°	383.7	297.3	283.5	192.2	223.0	243.1	290.8	365.9	367.5	372.4	395.8
60°	335.3	214.9	260.1	168.8	189.8	205.2	263.3	335.3	340.9	344.1	364.3
62.5°	280.3	155.9	235.8	152.7	173.7	176.9	240.7	306.2	313.4	315.8	327.9
65°	199.5	130.9	200.3	138.9	156.7	157.5	216.5	276.2	282.7	286.8	295.7
67.5°	134.9	106.6	152.7	126.0	143.8	144.6	193.0	241.5	250.5	253.7	259.3
70°	93.7	71.1	113.1	112.3	129.3	130.9	168.0	210.1	218.1	220.5	223.8
72.5°	68.7	57.3	93.7	100.9	113.9	115.6	142.2	174.5	182.6	185.0	186.6
75°	52.5	60.5	76.0	88.1	96.9	97.7	116.4	142.2	147.8	149.4	150.2
77.5°	42.0	56.5	55.7	71.1	79.2	77.6	91.3	109.9	114.7	114.7	114.7
80°	31.5	44.4	42.0	50.9	58.1	56.5	65.4	78.4	80.0	81.6	80.8
82.5°	23.4	28.3	28.3	32.3	38.8	37.2	43.6	50.9	50.9	50.9	52.5
85°	14.5	16.1	12.9	16.9	21.8	21.0	24.3	27.5	28.3	28.3	26.7
87.5°	8.9	7.3	4.0	6.4	9.7	9.7	11.3	12.1	11.3	11.3	11.3
90°	3.1	2.2	1.2	2.2	3.1	3.4	5.3	7.9	9.2	8.1	6.1
92.5°	21.2	13.0	4.8	13.0	21.2	23.3	32.8	45.4	51.6	45.2	32.4
95°	41.6	26.6	11.6	26.6	41.6	45.4	80.5	127.4	150.9	134.7	102.1
97.5°	46.5	33.2	20.0	33.2	46.5	49.8	108.5	186.7	225.8	215.5	195.0
100°	50.6	38.5	26.6	38.5	50.6	53.6	118.7	205.5	248.8	249.6	251.1
102.5°	54.5	43.4	32.1	43.4	54.5	57.3	123.3	211.3	255.4	268.4	294.6
105°	60.5	51.0	41.5	51.0	60.5	62.9	126.8	212.0	254.6	283.9	342.6
107.5°	68.8	60.0	51.2	60.0	68.8	71.1	127.4	202.6	240.2	281.1	363.0
110°	73.6	65.7	57.7	65.7	73.6	75.6	126.5	194.2	228.1	273.9	365.4



TEST NUMBER: P933851

CATALOG NUMBER: SQ4-FA-025U-050D-930-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (continued):

	160°	170°	180°	190°	200°	202.5°	210°	220°	225°	230°	240°
112.5°	79.3	71.7	64.1	71.7	79.3	81.2	126.5	186.9	217.1	263.9	357.6
115°	87.8	80.8	73.7	80.8	87.8	89.5	127.7	178.5	204.0	249.1	339.3
117.5°	96.0	89.6	83.3	89.6	96.0	97.6	130.0	173.3	195.0	235.7	317.0
120°	100.8	94.8	88.8	94.8	100.8	102.3	132.0	171.6	191.4	228.5	302.9
122.5°	106.3	100.3	94.2	100.3	106.3	107.8	134.7	170.6	188.5	222.0	289.0
125°	113.6	108.1	102.5	108.1	113.6	115.0	138.5	169.9	185.6	214.0	270.9
127.5°	120.4	114.8	109.3	114.8	120.4	121.8	142.2	169.4	183.0	207.4	256.3
130°	124.9	118.9	112.9	118.9	124.9	126.4	144.9	169.7	182.0	203.8	247.2
132.5°	128.6	122.7	116.7	122.7	128.6	130.2	147.2	169.9	181.2	200.7	239.6
135°	133.1	127.7	122.2	127.7	133.1	134.5	149.6	169.8	179.8	196.1	228.7
137.5°	138.7	133.3	127.9	133.3	138.7	140.0	153.2	170.8	179.6	193.4	220.9
140°	142.5	137.6	132.6	137.6	142.5	143.8	155.5	171.0	178.7	190.6	214.4
142.5°	145.4	140.8	136.2	140.8	145.4	146.5	157.2	171.5	178.7	189.1	210.1
145°	149.8	145.7	141.7	145.7	149.8	150.8	159.7	171.5	177.5	186.0	203.1
147.5°	155.1	151.2	147.3	151.2	155.1	156.1	163.2	172.7	177.5	184.2	197.6
150°	158.0	154.4	150.9	154.4	158.0	158.9	165.1	173.4	177.5	183.2	194.5
152.5°	160.0	157.3	154.7	157.3	160.0	160.7	166.3	173.8	177.5	182.3	192.0
155°	164.2	162.2	160.2	162.2	164.2	164.7	169.0	174.7	177.5	181.3	189.0
157.5°	168.1	166.2	164.3	166.2	168.1	168.6	171.6	175.5	177.5	180.4	186.5
160°	170.1	168.6	167.1	168.6	170.1	170.5	172.8	175.9	177.5	180.0	185.2
162.5°	172.1	171.0	169.8	171.0	172.1	172.4	174.1	176.3	177.5	179.6	184.0
165°	174.9	173.8	172.9	173.8	174.9	175.1	175.9	177.0	177.5	179.0	182.1
167.5°	176.6	176.1	175.6	176.1	176.6	176.7	177.4	178.3	178.7	179.7	181.7
170°	178.4	177.9	177.5	177.9	178.4	178.5	178.6	178.7	178.7	179.7	181.7
172.5°	178.7	178.5	178.4	178.5	178.7	178.7	178.7	178.7	178.7	179.5	181.1
175°	179.8	179.8	179.8	179.8	179.8	179.8	179.4	178.9	178.7	179.1	180.2
177.5°	179.8	179.8	179.8	179.8	179.8	179.8	179.5	179.1	178.9	179.3	180.1
180°	179.8	179.8	179.8	179.8	179.8	179.8	179.8	179.8	179.8	179.8	179.8



TEST NUMBER: P933851
 CATALOG NUMBER: SQ4-FA-025U-050D-930-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (continued):

	247.5°	250°	260°	270°	280°	290°	292.5°	300°	310°	315°	320°
0°	853.8	853.8	853.8	853.8	853.8	853.8	853.8	853.8	853.8	853.8	853.8
2.5°	824.0	821.5	824.8	815.8	824.8	821.5	824.0	829.6	824.8	828.0	831.3
5°	723.0	718.9	706.0	695.5	706.0	718.9	723.0	740.0	748.0	762.5	782.0
7.5°	646.3	643.0	639.8	633.3	639.8	643.0	646.3	651.1	659.2	672.1	686.6
10°	629.3	630.1	634.9	634.1	634.9	630.1	629.3	627.6	625.2	627.6	636.5
12.5°	672.9	680.1	706.8	705.2	706.8	680.1	672.9	640.6	618.8	614.7	616.4
15°	723.0	725.4	731.1	731.9	731.1	725.4	723.0	710.1	644.6	616.4	607.5
17.5°	727.8	728.6	732.7	732.7	732.7	728.6	727.8	722.1	700.4	662.4	612.3
20°	723.8	725.4	733.5	735.1	733.5	725.4	723.8	716.5	704.4	690.7	652.7
22.5°	722.1	725.4	731.9	731.1	731.9	725.4	722.1	710.9	700.4	690.7	675.3
25°	714.1	714.1	714.9	715.7	714.9	714.1	714.1	705.2	684.2	681.7	672.9
27.5°	697.2	698.8	703.6	702.8	703.6	698.8	697.2	693.9	671.3	668.9	662.4
30°	681.7	680.1	676.1	672.9	676.1	680.1	681.7	676.9	654.3	647.9	649.5
32.5°	656.0	651.9	647.9	645.5	647.9	651.9	656.0	654.3	637.3	628.5	630.1
35°	625.2	626.0	625.2	622.8	625.2	626.0	625.2	626.8	616.4	608.3	607.5
37.5°	603.5	605.1	604.3	601.0	604.3	605.1	603.5	601.8	587.2	584.8	586.4
40°	580.8	581.6	580.8	578.4	580.8	581.6	580.8	577.6	557.4	558.2	563.9
42.5°	559.0	558.2	555.8	554.2	555.8	558.2	559.0	554.2	528.3	525.9	536.4
45°	534.0	534.8	529.9	527.5	529.9	534.8	534.0	530.7	504.0	497.6	504.8
47.5°	508.9	508.9	504.8	502.4	504.8	508.9	508.9	504.8	476.6	470.2	474.2
50°	482.3	481.5	475.8	475.0	475.8	481.5	482.3	479.9	449.9	444.3	444.3
52.5°	451.5	451.5	452.3	454.0	452.3	451.5	451.5	452.3	425.8	420.0	418.4
55°	424.9	425.8	431.4	433.0	431.4	425.8	424.9	424.9	400.7	395.0	391.8
57.5°	397.4	397.4	401.5	401.5	401.5	397.4	397.4	395.8	372.4	367.5	365.9
60°	365.9	367.5	370.7	369.9	370.7	367.5	365.9	364.3	344.1	340.9	335.3
62.5°	332.8	334.4	335.3	333.6	335.3	334.4	332.8	327.9	315.8	313.4	306.2
65°	298.1	299.7	300.5	298.9	300.5	299.7	298.1	295.7	286.8	282.7	276.2
67.5°	262.5	261.7	260.9	264.2	260.9	261.7	262.5	259.3	253.7	250.5	241.5
70°	226.2	226.2	225.4	227.0	225.4	226.2	226.2	223.8	220.5	218.1	210.1
72.5°	187.4	186.6	189.8	187.4	189.8	186.6	187.4	186.6	185.0	182.6	174.5
75°	149.4	151.0	149.4	151.8	149.4	151.0	149.4	150.2	149.4	147.8	142.2
77.5°	113.9	115.6	113.9	113.9	113.9	115.6	113.9	114.7	114.7	114.7	109.9
80°	80.8	80.0	80.0	79.2	80.0	80.0	80.8	80.8	81.6	80.0	78.4
82.5°	51.7	50.9	50.9	52.5	50.9	50.9	51.7	52.5	50.9	50.9	50.9
85°	28.3	29.1	27.5	27.5	27.5	29.1	28.3	26.7	28.3	28.3	27.5
87.5°	10.5	9.7	9.7	9.7	9.7	9.7	10.5	11.3	11.3	11.3	12.1
90°	4.6	4.6	4.6	4.6	4.6	4.6	4.6	6.1	8.1	9.2	7.9
92.5°	22.9	22.0	18.3	14.7	18.3	22.0	22.9	32.4	45.2	51.6	45.4
95°	77.8	75.1	64.0	53.0	64.0	75.1	77.8	102.1	134.7	150.9	127.4
97.5°	179.6	174.4	153.4	132.3	153.4	174.4	179.6	195.0	215.5	225.8	186.7
100°	252.2	246.0	221.0	195.9	221.0	246.0	252.2	251.1	249.6	248.8	205.5
102.5°	314.3	308.9	287.5	266.0	287.5	308.9	314.3	294.6	268.4	255.4	211.3
105°	386.6	383.8	372.3	360.7	372.3	383.8	386.6	342.6	283.9	254.6	212.0
107.5°	424.3	425.0	427.8	430.6	427.8	425.0	424.3	363.0	281.1	240.2	202.6
110°	433.9	436.9	449.0	461.0	449.0	436.9	433.9	365.4	273.9	228.1	194.2



TEST NUMBER: P933851

CATALOG NUMBER: SQ4-FA-025U-050D-930-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (continued):

	247.5°	250°	260°	270°	280°	290°	292.5°	300°	310°	315°	320°
112.5°	427.8	432.3	450.8	469.3	450.8	432.3	427.8	357.6	263.9	217.1	186.9
115°	406.9	413.3	438.8	464.5	438.8	413.3	406.9	339.3	249.1	204.0	178.5
117.5°	378.1	385.1	413.5	441.9	413.5	385.1	378.1	317.0	235.7	195.0	173.3
120°	358.7	365.6	393.1	420.7	393.1	365.6	358.7	302.9	228.5	191.4	171.6
122.5°	339.3	346.1	373.2	400.4	373.2	346.1	339.3	289.0	222.0	188.5	170.6
125°	313.6	319.8	344.8	369.9	344.8	319.8	313.6	270.9	214.0	185.6	169.9
127.5°	292.9	298.2	319.4	340.5	319.4	298.2	292.9	256.3	207.4	183.0	169.4
130°	279.8	284.7	304.3	323.8	304.3	284.7	279.8	247.2	203.8	182.0	169.7
132.5°	268.8	273.1	290.6	308.1	290.6	273.1	268.8	239.6	200.7	181.2	169.9
135°	253.1	256.9	271.9	287.0	271.9	256.9	253.1	228.7	196.1	179.8	169.8
137.5°	241.5	244.6	257.0	269.2	257.0	244.6	241.5	220.9	193.4	179.6	170.8
140°	232.2	235.1	246.6	258.2	246.6	235.1	232.2	214.4	190.6	178.7	171.0
142.5°	225.7	228.2	238.1	248.0	238.1	228.2	225.7	210.1	189.1	178.7	171.5
145°	215.9	217.8	225.3	232.9	225.3	217.8	215.9	203.1	186.0	177.5	171.5
147.5°	207.7	209.3	215.5	221.7	215.5	209.3	207.7	197.6	184.2	177.5	172.7
150°	203.0	204.3	209.3	214.4	209.3	204.3	203.0	194.5	183.2	177.5	173.4
152.5°	199.3	200.3	204.0	207.9	204.0	200.3	199.3	192.0	182.3	177.5	173.8
155°	194.8	195.5	197.9	200.5	197.9	195.5	194.8	189.0	181.3	177.5	174.7
157.5°	191.0	191.4	193.2	195.0	193.2	191.4	191.0	186.5	180.4	177.5	175.5
160°	189.0	189.3	190.3	191.4	190.3	189.3	189.0	185.2	180.0	177.5	175.9
162.5°	187.3	187.5	188.5	189.4	188.5	187.5	187.3	184.0	179.6	177.5	176.3
165°	184.4	184.7	185.7	186.8	185.7	184.7	184.4	182.1	179.0	177.5	177.0
167.5°	183.2	183.3	183.8	184.2	183.8	183.3	183.2	181.7	179.7	178.7	178.3
170°	183.2	183.2	183.2	183.2	183.2	183.2	183.2	181.7	179.7	178.7	178.7
172.5°	182.3	182.2	181.8	181.5	181.8	182.2	182.3	181.1	179.5	178.7	178.7
175°	181.0	181.0	181.0	181.0	181.0	181.0	181.0	180.2	179.1	178.7	178.9
177.5°	180.8	180.7	180.2	179.8	180.2	180.7	180.8	180.1	179.3	178.9	179.1
180°	179.8	179.8	179.8	179.8	179.8	179.8	179.8	179.8	179.8	179.8	179.8



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CANDELA DISTRIBUTION (continued):

	330°	337.5°	340°	350°	360°
0°	853.8	853.8	853.8	853.8	853.8
2.5°	843.3	847.4	849.8	853.0	861.1
5°	811.0	826.4	831.3	843.3	857.8
7.5°	740.0	786.8	799.7	828.8	851.4
10°	671.3	718.1	740.8	809.4	843.3
12.5°	636.5	664.0	679.3	775.5	832.1
15°	614.7	634.1	645.5	730.2	819.1
17.5°	597.8	611.5	619.6	685.8	801.3
20°	587.2	593.7	601.0	653.5	781.2
22.5°	580.0	576.0	581.6	630.9	753.7
25°	575.2	559.8	566.3	613.1	721.3
27.5°	579.2	545.2	547.7	597.0	687.4
30°	580.0	527.5	528.3	580.0	649.5
32.5°	574.4	508.9	509.7	559.0	606.7
35°	560.6	487.1	486.3	534.8	548.5
37.5°	542.0	463.7	463.7	508.1	484.7
40°	519.4	440.3	442.7	473.4	428.2
42.5°	491.9	415.2	418.4	427.4	386.2
45°	462.0	391.0	393.4	361.1	353.8
47.5°	429.0	365.9	366.7	299.7	343.3
50°	389.4	340.1	336.9	256.9	342.5
52.5°	354.6	311.8	302.1	232.6	311.0
55°	320.7	281.9	260.9	214.1	288.4
57.5°	290.8	243.1	223.0	192.2	283.5
60°	263.3	205.2	189.8	168.8	260.1
62.5°	240.7	176.9	173.7	152.7	235.8
65°	216.5	157.5	156.7	138.9	200.3
67.5°	193.0	144.6	143.8	126.0	152.7
70°	168.0	130.9	129.3	112.3	113.1
72.5°	142.2	115.6	113.9	100.9	93.7
75°	116.4	97.7	96.9	88.1	76.0
77.5°	91.3	77.6	79.2	71.1	55.7
80°	65.4	56.5	58.1	50.9	42.0
82.5°	43.6	37.2	38.8	32.3	28.3
85°	24.3	21.0	21.8	16.9	12.9
87.5°	11.3	9.7	9.7	6.4	4.0
90°	5.3	3.4	3.1	2.2	1.2
92.5°	32.8	23.3	21.2	13.0	4.8
95°	80.5	45.4	41.6	26.6	11.6
97.5°	108.5	49.8	46.5	33.2	20.0
100°	118.7	53.6	50.6	38.5	26.6
102.5°	123.3	57.3	54.5	43.4	32.1
105°	126.8	62.9	60.5	51.0	41.5
107.5°	127.4	71.1	68.8	60.0	51.2
110°	126.5	75.6	73.6	65.7	57.7



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CANDELA DISTRIBUTION (continued):

	330°	337.5°	340°	350°	360°
112.5°	126.5	81.2	79.3	71.7	64.1
115°	127.7	89.5	87.8	80.8	73.7
117.5°	130.0	97.6	96.0	89.6	83.3
120°	132.0	102.3	100.8	94.8	88.8
122.5°	134.7	107.8	106.3	100.3	94.2
125°	138.5	115.0	113.6	108.1	102.5
127.5°	142.2	121.8	120.4	114.8	109.3
130°	144.9	126.4	124.9	118.9	112.9
132.5°	147.2	130.2	128.6	122.7	116.7
135°	149.6	134.5	133.1	127.7	122.2
137.5°	153.2	140.0	138.7	133.3	127.9
140°	155.5	143.8	142.5	137.6	132.6
142.5°	157.2	146.5	145.4	140.8	136.2
145°	159.7	150.8	149.8	145.7	141.7
147.5°	163.2	156.1	155.1	151.2	147.3
150°	165.1	158.9	158.0	154.4	150.9
152.5°	166.3	160.7	160.0	157.3	154.7
155°	169.0	164.7	164.2	162.2	160.2
157.5°	171.6	168.6	168.1	166.2	164.3
160°	172.8	170.5	170.1	168.6	167.1
162.5°	174.1	172.4	172.1	171.0	169.8
165°	175.9	175.1	174.9	173.8	172.9
167.5°	177.4	176.7	176.6	176.1	175.6
170°	178.6	178.5	178.4	177.9	177.5
172.5°	178.7	178.7	178.7	178.5	178.4
175°	179.4	179.8	179.8	179.8	179.8
177.5°	179.5	179.8	179.8	179.8	179.8
180°	179.8	179.8	179.8	179.8	179.8



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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	11.91	12.93	12.72	13.76	14.79	14.73	15.75	15.54	16.59	17.62
	3H	12.40	13.31	13.22	14.16	15.21	16.09	17.00	16.91	17.85	18.90
	4H	12.59	13.46	13.44	14.31	15.38	16.54	17.40	17.38	18.25	19.32
	6H	12.72	13.52	13.58	14.38	15.46	16.83	17.63	17.68	18.48	19.57
	8H	12.73	13.49	13.59	14.36	15.45	16.91	17.67	17.77	18.54	19.63
	12H	12.70	13.43	13.57	14.30	15.41	16.95	17.67	17.82	18.54	19.65
4H	2H	12.96	13.82	13.80	14.67	15.74	15.16	16.02	16.01	16.88	17.95
	3H	14.00	14.72	14.86	15.60	16.69	16.68	17.40	17.54	18.28	19.37
	4H	14.28	14.94	15.15	15.82	16.93	17.21	17.87	18.08	18.75	19.86
	6H	14.42	14.98	15.30	15.89	17.00	17.59	18.15	18.47	19.06	20.17
	8H	14.43	14.95	15.31	15.85	16.98	17.69	18.22	18.58	19.12	20.25
	12H	14.40	14.88	15.31	15.80	16.93	17.76	18.23	18.67	19.15	20.29
8H	4H	14.75	15.28	15.64	16.18	17.31	17.35	17.88	18.24	18.78	19.91
	6H	15.02	15.45	15.93	16.40	17.52	17.79	18.23	18.71	19.17	20.30
	8H	15.06	15.45	15.99	16.38	17.53	17.94	18.33	18.87	19.27	20.41
	12H	15.05	15.39	15.98	16.32	17.52	18.05	18.39	18.98	19.32	20.51
12H	4H	14.76	15.24	15.67	16.16	17.29	17.32	17.80	18.23	18.72	19.85
	6H	15.08	15.47	16.00	16.40	17.55	17.79	18.18	18.72	19.11	20.26
	8H	15.15	15.49	16.08	16.42	17.62	17.96	18.30	18.89	19.23	20.42