

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: P933823

Luminaire Tested: SQ4-FA-025U-050D-927-1D-UNV-STD-W-6

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P933823
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-927-1D-UNV-STD-W-6
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Asymmetric Frosted Continuous I
Lens
Light Source: -
Ballast/Driver: -

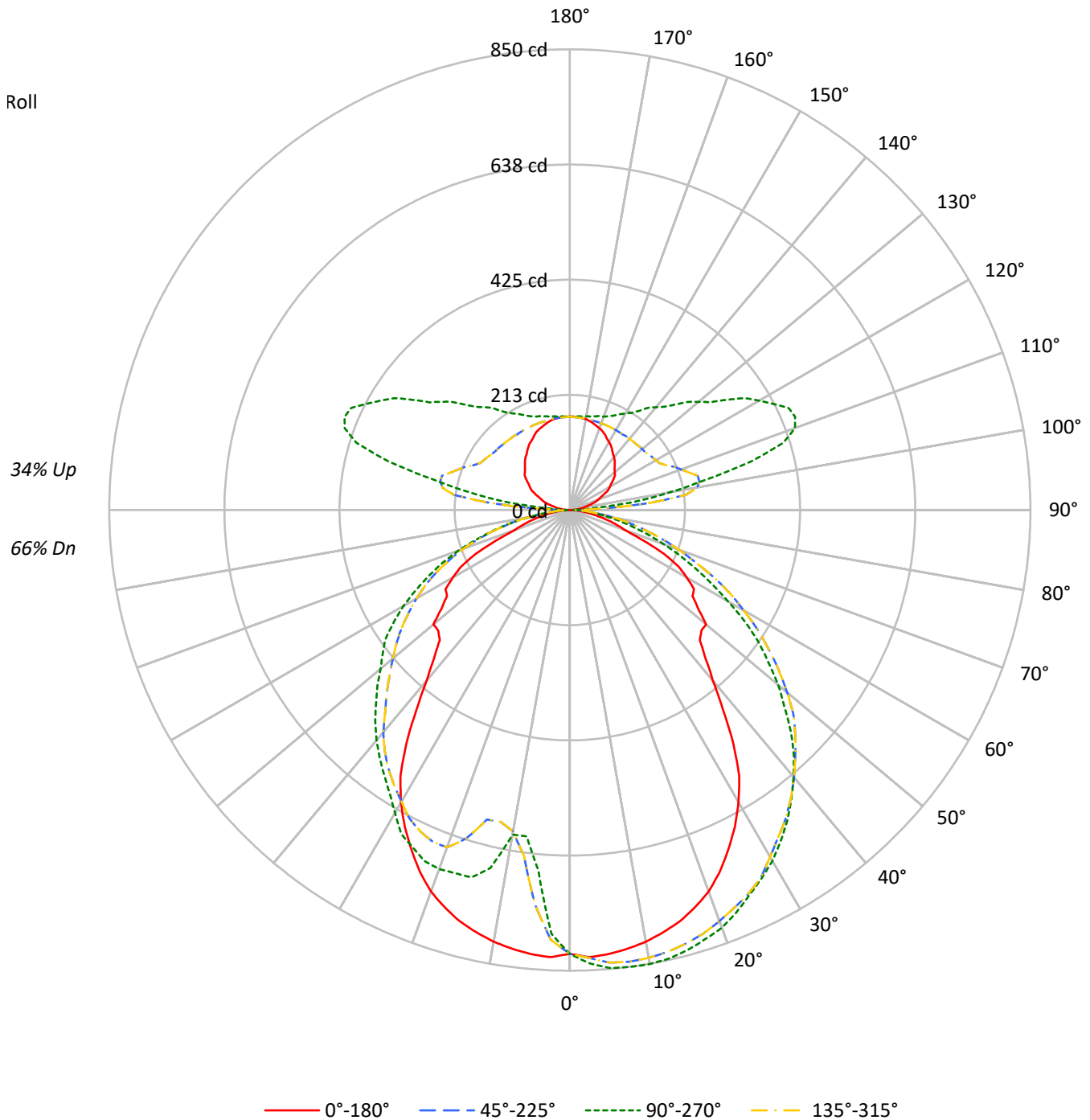
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3240.9 lumens
Efficiency: N/A
Efficacy: 98.2 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°	5065	5065	5065	5065
5°	5101	5113	5101	4020
10°	5065	5036	5065	3601
15°	5008	4928	5008	4114
20°	4902	4798	4902	4123
25°	4685	4609	4685	4036
30°	4406	4453	4406	3844
35°	3926	4255	3926	3633
40°	3270	4022	3270	3474
45°	2920	3749	2920	3290
50°	3099	3424	3099	3107
55°	2913	3073	2913	3000
60°	2999	2610	2999	2747
65°	2715	2158	2715	2412
70°	1875	1719	1875	2022
75°	1638	1271	1638	1522
80°	1312	840	1312	915
85°	739	445	739	378

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 20°
 Vertical Angle: 45°
 Luminance: 4478 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.9	2.3
10°-20°	209.8	6.5
20°-30°	324.4	10.0
30°-40°	387.2	11.9
40°-50°	389.5	12.0
50°-60°	338.9	10.5
60°-70°	240.3	7.4
70°-80°	127.1	3.9
80°-90°	32.3	1.0
90°-100°	84.0	2.6
100°-110°	220.9	6.8
110°-120°	229.0	7.1
120°-130°	183.7	5.7
130°-140°	144.2	4.4
140°-150°	110.6	3.4
150°-160°	79.7	2.5
160°-170°	48.8	1.5
170°-180°	16.5	0.5
0°-30°	608.1	18.8
0°-40°	995.4	30.7
0°-60°	1723.8	53.2
0°-90°	2123.6	65.5
90°-120°	534.0	16.5
90°-150°	972.5	30.0
90°-180°	1117.0	34.5
0°-180°	3240.9	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	819	819	819	819	819	
5°	823	848	823	667	823	78
15°	786	840	786	702	786	221
25°	692	784	692	686	692	318
35°	526	700	526	597	526	325
45°	339	576	339	506	339	272
55°	276	425	276	415	276	254
65°	192	256	192	287	192	184
75°	73	122	73	146	73	77
85°	12	31	12	26	12	17
90°	1	4	1	4	1	1
95°	11	51	11	51	11	12
105°	40	346	40	346	40	42
115°	71	445	71	445	71	70
125°	98	355	98	355	98	87
135°	117	275	117	275	117	91
145°	136	223	136	223	136	85
155°	154	192	154	192	154	71
165°	166	179	166	179	166	47
175°	172	174	172	174	172	16
180°	172	172	172	172	172	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	818.7	818.7	818.7	818.7	818.7	818.7	818.7	818.7	818.7	818.7	818.7
2.5°	825.7	825.7	830.4	831.9	831.9	829.6	827.3	829.6	836.6	838.9	838.1
5°	822.6	828.8	837.4	838.9	840.5	839.7	838.1	839.7	847.4	849.0	849.8
7.5°	816.4	828.1	838.9	841.2	843.5	841.2	840.5	842.0	849.8	851.3	851.3
10°	808.7	825.0	837.4	838.9	841.2	838.9	838.9	842.0	849.8	851.3	852.1
12.5°	797.9	820.3	831.9	833.4	836.6	835.8	835.0	838.1	845.8	847.4	847.4
15°	785.5	811.8	822.6	824.2	829.6	828.1	828.1	831.1	839.7	842.0	841.2
17.5°	768.4	801.0	813.4	815.7	819.5	818.7	819.5	822.6	830.4	831.9	832.7
20°	749.1	786.2	801.0	803.3	807.1	807.1	807.1	811.0	818.7	821.8	821.8
22.5°	722.7	770.7	786.2	787.8	792.4	792.4	793.9	799.4	806.3	807.1	807.1
25°	691.7	753.7	766.8	771.5	776.2	778.5	780.8	783.9	786.2	785.5	786.2
27.5°	659.2	732.0	749.1	752.1	758.4	760.7	763.8	764.5	765.3	767.6	766.1
30°	622.8	701.8	727.3	730.4	740.5	742.0	739.0	740.5	744.4	746.0	747.5
32.5°	581.7	656.9	704.9	711.9	721.2	716.5	715.7	718.0	724.3	724.3	725.8
35°	526.0	622.0	684.0	690.2	697.2	691.7	694.8	695.6	699.5	701.8	701.0
37.5°	464.8	591.8	662.3	666.9	672.4	665.4	670.1	672.4	675.4	673.9	673.9
40°	410.6	544.5	636.7	639.8	644.5	639.0	643.7	645.3	646.8	645.3	644.5
42.5°	370.3	492.6	609.6	613.5	610.4	614.2	615.8	618.9	616.6	613.5	613.5
45°	339.3	478.7	580.2	584.8	580.2	586.4	588.7	588.7	581.7	580.2	579.4
47.5°	329.2	450.8	550.8	550.8	548.4	556.2	560.0	554.6	547.6	545.3	545.3
50°	328.4	419.8	510.4	507.4	518.2	527.5	523.6	518.2	512.8	504.3	504.3
52.5°	298.2	381.8	458.5	470.2	487.3	492.6	486.5	481.0	471.7	467.9	464.8
55°	276.5	342.3	411.3	434.6	452.4	459.3	447.8	442.3	428.4	426.0	424.5
57.5°	271.9	285.1	367.9	397.4	419.0	418.3	411.3	401.2	389.6	387.3	386.5
60°	249.4	206.1	321.5	356.4	378.8	376.5	370.3	361.0	350.1	348.6	347.0
62.5°	226.1	149.5	268.8	308.3	340.0	339.3	333.9	319.9	312.2	308.3	305.2
65°	192.1	125.5	191.3	256.4	302.1	303.6	292.1	282.0	273.4	268.8	268.0
67.5°	146.4	102.3	129.4	213.8	265.7	264.1	249.4	244.8	233.9	231.6	227.0
70°	108.4	68.1	89.9	173.5	230.1	226.1	214.6	209.1	199.0	193.7	190.6
72.5°	89.9	55.0	65.8	134.8	193.7	189.0	178.9	172.7	164.2	159.5	156.5
75°	72.8	58.1	50.4	99.9	157.2	154.2	144.8	138.7	131.7	125.5	126.3
77.5°	53.4	54.2	40.3	73.6	124.7	120.0	114.7	106.9	103.8	97.6	97.6
80°	40.3	42.6	30.2	50.4	89.9	89.9	85.2	79.8	74.4	71.3	71.3
82.5°	27.1	27.1	22.5	31.7	61.2	58.9	55.7	54.2	51.1	49.6	49.6
85°	12.4	15.5	13.9	19.3	33.3	34.9	34.9	33.3	32.6	31.0	31.7
87.5°	3.8	7.0	8.5	10.9	17.0	17.8	18.6	18.6	18.6	19.3	19.3
90°	1.2	2.1	3.0	3.2	5.1	7.5	8.8	7.8	5.9	4.4	4.4
92.5°	4.6	12.5	20.3	22.3	31.4	43.5	49.5	43.4	31.1	21.9	21.1
95°	11.1	25.5	39.9	43.5	77.2	122.2	144.7	129.1	97.9	74.6	72.0
97.5°	19.2	31.9	44.6	47.7	104.0	179.0	216.5	206.7	187.0	172.2	167.2
100°	25.5	37.0	48.5	51.4	113.8	197.0	238.6	239.3	240.8	241.9	235.9
102.5°	30.8	41.6	52.3	55.0	118.3	202.7	244.9	257.4	282.5	301.4	296.2
105°	39.8	48.9	58.0	60.3	121.6	203.3	244.2	272.3	328.6	370.8	368.0
107.5°	49.0	57.5	66.0	68.1	122.2	194.3	230.3	269.6	348.0	406.9	407.6
110°	55.3	63.0	70.6	72.5	121.3	186.3	218.8	262.6	350.4	416.1	419.0



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	61.4	68.8	76.0	77.8	121.3	179.3	208.2	253.1	342.9	410.2	414.6
115°	70.7	77.5	84.2	85.9	122.4	171.2	195.6	238.9	325.3	390.2	396.3
117.5°	79.8	85.9	92.0	93.6	124.7	166.2	187.0	226.0	304.0	362.5	369.3
120°	85.2	90.9	96.6	98.1	126.6	164.5	183.5	219.1	290.4	344.0	350.6
122.5°	90.3	96.2	101.9	103.4	129.2	163.6	180.8	212.9	277.1	325.3	331.9
125°	98.3	103.6	109.0	110.3	132.8	162.9	177.9	205.2	259.8	300.7	306.7
127.5°	104.8	110.1	115.5	116.8	136.4	162.5	175.5	198.9	245.8	280.9	286.0
130°	108.3	114.0	119.7	121.2	139.0	162.7	174.6	195.4	237.1	268.3	273.0
132.5°	111.9	117.7	123.4	124.8	141.1	162.9	173.8	192.4	229.8	257.7	261.9
135°	117.2	122.4	127.7	129.0	143.5	162.8	172.4	188.0	219.3	242.7	246.3
137.5°	122.7	127.8	133.0	134.3	146.9	163.8	172.2	185.4	211.8	231.6	234.5
140°	127.1	131.9	136.7	137.9	149.1	163.9	171.3	182.7	205.6	222.7	225.5
142.5°	130.6	135.0	139.4	140.5	150.8	164.5	171.3	181.3	201.4	216.4	218.8
145°	135.9	139.8	143.6	144.6	153.2	164.5	170.2	178.3	194.7	207.1	208.8
147.5°	141.2	145.0	148.8	149.7	156.5	165.6	170.2	176.6	189.5	199.2	200.7
150°	144.7	148.1	151.5	152.4	158.3	166.2	170.2	175.6	186.5	194.7	195.9
152.5°	148.3	150.8	153.5	154.1	159.5	166.6	170.2	174.8	184.1	191.1	192.0
155°	153.6	155.5	157.5	157.9	162.0	167.5	170.2	173.9	181.3	186.8	187.4
157.5°	157.5	159.4	161.2	161.7	164.5	168.3	170.2	173.0	178.8	183.1	183.6
160°	160.2	161.7	163.1	163.5	165.7	168.7	170.2	172.6	177.6	181.3	181.5
162.5°	162.9	163.9	165.0	165.3	166.9	169.1	170.2	172.2	176.4	179.6	179.8
165°	165.8	166.7	167.7	167.9	168.7	169.7	170.2	171.6	174.6	176.9	177.1
167.5°	168.4	168.9	169.3	169.5	170.1	170.9	171.3	172.3	174.3	175.7	175.8
170°	170.2	170.6	171.1	171.2	171.2	171.3	171.3	172.3	174.3	175.7	175.7
172.5°	171.1	171.2	171.3	171.3	171.3	171.3	171.3	172.1	173.6	174.8	174.7
175°	172.4	172.4	172.4	172.4	172.0	171.6	171.3	171.8	172.8	173.6	173.6
177.5°	172.4	172.4	172.4	172.4	172.1	171.7	171.6	171.9	172.7	173.3	173.2
180°	172.4	172.4	172.4	172.4	172.4	172.4	172.4	172.4	172.4	172.4	172.4



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CANDELA DISTRIBUTION (continued):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
0°	818.7	818.7	818.7	818.7	818.7	818.7	818.7	818.7	818.7	818.7	818.7
2.5°	839.7	837.4	839.7	838.1	838.9	836.6	829.6	827.3	829.6	831.9	831.9
5°	849.8	848.2	849.8	849.8	849.0	847.4	839.7	838.1	839.7	840.5	838.9
7.5°	852.9	850.5	852.9	851.3	851.3	849.8	842.0	840.5	841.2	843.5	841.2
10°	852.9	850.5	852.9	852.1	851.3	849.8	842.0	838.9	838.9	841.2	838.9
12.5°	849.0	847.4	849.0	847.4	847.4	845.8	838.1	835.0	835.8	836.6	833.4
15°	842.8	840.5	842.8	841.2	842.0	839.7	831.1	828.1	828.1	829.6	824.2
17.5°	833.4	830.4	833.4	832.7	831.9	830.4	822.6	819.5	818.7	819.5	815.7
20°	822.6	820.3	822.6	821.8	821.8	818.7	811.0	807.1	807.1	807.1	803.3
22.5°	805.6	803.3	805.6	807.1	807.1	806.3	799.4	793.9	792.4	792.4	787.8
25°	786.2	783.9	786.2	786.2	785.5	786.2	783.9	780.8	778.5	776.2	771.5
27.5°	767.6	766.1	767.6	766.1	767.6	765.3	764.5	763.8	760.7	758.4	752.1
30°	749.1	747.5	749.1	747.5	746.0	744.4	740.5	739.0	742.0	740.5	730.4
32.5°	725.8	724.3	725.8	725.8	724.3	724.3	718.0	715.7	716.5	721.2	711.9
35°	701.8	699.5	701.8	701.0	701.8	699.5	695.6	694.8	691.7	697.2	690.2
37.5°	673.9	671.6	673.9	673.9	673.9	675.4	672.4	670.1	665.4	672.4	666.9
40°	645.3	642.2	645.3	644.5	645.3	646.8	645.3	643.7	639.0	644.5	639.8
42.5°	612.7	611.9	612.7	613.5	613.5	616.6	618.9	615.8	614.2	610.4	613.5
45°	577.9	576.3	577.9	579.4	580.2	581.7	588.7	588.7	586.4	580.2	584.8
47.5°	540.7	536.8	540.7	545.3	545.3	547.6	554.6	560.0	556.2	548.4	550.8
50°	501.2	502.0	501.2	504.3	504.3	512.8	518.2	523.6	527.5	518.2	507.4
52.5°	462.5	461.7	462.5	464.8	467.9	471.7	481.0	486.5	492.6	487.3	470.2
55°	423.7	425.3	423.7	424.5	426.0	428.4	442.3	447.8	459.3	452.4	434.6
57.5°	385.0	382.7	385.0	386.5	387.3	389.6	401.2	411.3	418.3	419.0	397.4
60°	340.0	337.0	340.0	347.0	348.6	350.1	361.0	370.3	376.5	378.8	356.4
62.5°	300.5	295.1	300.5	305.2	308.3	312.2	319.9	333.9	339.3	340.0	308.3
65°	258.7	256.4	258.7	268.0	268.8	273.4	282.0	292.1	303.6	302.1	256.4
67.5°	220.8	220.8	220.8	227.0	231.6	233.9	244.8	249.4	264.1	265.7	213.8
70°	185.9	185.1	185.9	190.6	193.7	199.0	209.1	214.6	226.1	230.1	173.5
72.5°	152.6	151.8	152.6	156.5	159.5	164.2	172.7	178.9	189.0	193.7	134.8
75°	123.2	121.6	123.2	126.3	125.5	131.7	138.7	144.8	154.2	157.2	99.9
77.5°	94.5	94.5	94.5	97.6	97.6	103.8	106.9	114.7	120.0	124.7	73.6
80°	70.5	69.7	70.5	71.3	71.3	74.4	79.8	85.2	89.9	89.9	50.4
82.5°	49.6	48.0	49.6	49.6	49.6	51.1	54.2	55.7	58.9	61.2	31.7
85°	31.0	31.0	31.0	31.7	31.0	32.6	33.3	34.9	34.9	33.3	19.3
87.5°	20.2	19.3	20.2	19.3	19.3	18.6	18.6	18.6	17.8	17.0	10.9
90°	4.4	4.4	4.4	4.4	4.4	5.9	7.8	8.8	7.5	5.1	3.2
92.5°	17.6	14.1	17.6	21.1	21.9	31.1	43.4	49.5	43.5	31.4	22.3
95°	61.4	50.8	61.4	72.0	74.6	97.9	129.1	144.7	122.2	77.2	43.5
97.5°	147.1	126.9	147.1	167.2	172.2	187.0	206.7	216.5	179.0	104.0	47.7
100°	211.9	187.9	211.9	235.9	241.9	240.8	239.3	238.6	197.0	113.8	51.4
102.5°	275.7	255.1	275.7	296.2	301.4	282.5	257.4	244.9	202.7	118.3	55.0
105°	357.0	345.9	357.0	368.0	370.8	328.6	272.3	244.2	203.3	121.6	60.3
107.5°	410.2	412.9	410.2	407.6	406.9	348.0	269.6	230.3	194.3	122.2	68.1
110°	430.5	442.1	430.5	419.0	416.1	350.4	262.6	218.8	186.3	121.3	72.5



TEST NUMBER: P933823

CATALOG NUMBER: SQ4-FA-025U-050D-927-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (continued):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
112.5°	432.3	450.0	432.3	414.6	410.2	342.9	253.1	208.2	179.3	121.3	77.8
115°	420.8	445.4	420.8	396.3	390.2	325.3	238.9	195.6	171.2	122.4	85.9
117.5°	396.6	423.7	396.6	369.3	362.5	304.0	226.0	187.0	166.2	124.7	93.6
120°	377.0	403.4	377.0	350.6	344.0	290.4	219.1	183.5	164.5	126.6	98.1
122.5°	357.9	383.9	357.9	331.9	325.3	277.1	212.9	180.8	163.6	129.2	103.4
125°	330.6	354.7	330.6	306.7	300.7	259.8	205.2	177.9	162.9	132.8	110.3
127.5°	306.2	326.5	306.2	286.0	280.9	245.8	198.9	175.5	162.5	136.4	116.8
130°	291.8	310.5	291.8	273.0	268.3	237.1	195.4	174.6	162.7	139.0	121.2
132.5°	278.7	295.4	278.7	261.9	257.7	229.8	192.4	173.8	162.9	141.1	124.8
135°	260.7	275.2	260.7	246.3	242.7	219.3	188.0	172.4	162.8	143.5	129.0
137.5°	246.4	258.2	246.4	234.5	231.6	211.8	185.4	172.2	163.8	146.9	134.3
140°	236.5	247.6	236.5	225.5	222.7	205.6	182.7	171.3	163.9	149.1	137.9
142.5°	228.3	237.9	228.3	218.8	216.4	201.4	181.3	171.3	164.5	150.8	140.5
145°	216.1	223.3	216.1	208.8	207.1	194.7	178.3	170.2	164.5	153.2	144.6
147.5°	206.7	212.6	206.7	200.7	199.2	189.5	176.6	170.2	165.6	156.5	149.7
150°	200.7	205.6	200.7	195.9	194.7	186.5	175.6	170.2	166.2	158.3	152.4
152.5°	195.7	199.4	195.7	192.0	191.1	184.1	174.8	170.2	166.6	159.5	154.1
155°	189.8	192.3	189.8	187.4	186.8	181.3	173.9	170.2	167.5	162.0	157.9
157.5°	185.3	187.0	185.3	183.6	183.1	178.8	173.0	170.2	168.3	164.5	161.7
160°	182.5	183.5	182.5	181.5	181.3	177.6	172.6	170.2	168.7	165.7	163.5
162.5°	180.7	181.6	180.7	179.8	179.6	176.4	172.2	170.2	169.1	166.9	165.3
165°	178.1	179.1	178.1	177.1	176.9	174.6	171.6	170.2	169.7	168.7	167.9
167.5°	176.3	176.6	176.3	175.8	175.7	174.3	172.3	171.3	170.9	170.1	169.5
170°	175.7	175.7	175.7	175.7	175.7	174.3	172.3	171.3	171.3	171.2	171.2
172.5°	174.3	174.0	174.3	174.7	174.8	173.6	172.1	171.3	171.3	171.3	171.3
175°	173.6	173.6	173.6	173.6	173.6	172.8	171.8	171.3	171.6	172.0	172.4
177.5°	172.8	172.4	172.8	173.2	173.3	172.7	171.9	171.6	171.7	172.1	172.4
180°	172.4	172.4	172.4	172.4	172.4	172.4	172.4	172.4	172.4	172.4	172.4



TEST NUMBER: P933823

CATALOG NUMBER: SQ4-FA-025U-050D-927-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (continued):

	160°	170°	180°	190°	200°	202.5°	210°	220°	225°	230°	240°
0°	818.7	818.7	818.7	818.7	818.7	818.7	818.7	818.7	818.7	818.7	818.7
2.5°	830.4	825.7	825.7	818.0	814.9	812.6	808.7	797.1	793.9	790.9	795.5
5°	837.4	828.8	822.6	808.7	797.1	792.4	777.7	749.8	731.2	717.3	709.6
7.5°	838.9	828.1	816.4	794.7	766.8	754.4	709.6	658.4	644.5	632.1	624.3
10°	837.4	825.0	808.7	776.2	710.3	688.6	643.7	610.4	601.8	599.5	601.8
12.5°	831.9	820.3	797.9	743.6	651.4	636.7	610.4	591.1	589.4	593.4	614.2
15°	822.6	811.8	785.5	700.2	618.9	608.1	589.4	582.5	591.1	618.2	680.9
17.5°	813.4	801.0	768.4	657.7	594.1	586.4	573.2	587.1	635.2	671.6	692.5
20°	801.0	786.2	749.1	626.6	576.3	569.3	563.1	625.9	662.3	675.4	687.1
22.5°	786.2	770.7	722.7	605.0	557.7	552.3	556.2	647.6	662.3	671.6	681.7
25°	766.8	753.7	691.7	587.9	543.0	536.8	551.6	645.3	653.7	656.1	676.2
27.5°	749.1	732.0	659.2	572.4	525.2	522.8	555.4	635.2	641.4	643.7	665.4
30°	727.3	701.8	622.8	556.2	506.6	505.8	556.2	622.8	621.2	627.4	649.1
32.5°	704.9	656.9	581.7	536.0	488.8	488.0	550.8	604.2	602.7	611.1	627.4
35°	684.0	622.0	526.0	512.8	466.3	467.1	537.5	582.5	583.3	591.1	601.1
37.5°	662.3	591.8	464.8	487.3	444.6	444.6	519.8	562.3	560.8	563.1	577.1
40°	636.7	544.5	410.6	453.9	424.5	422.2	498.0	540.7	535.2	534.5	553.9
42.5°	609.6	492.6	370.3	409.8	401.2	398.2	471.7	514.4	504.3	506.6	531.4
45°	580.2	478.7	339.3	346.3	377.2	374.9	443.1	484.1	477.2	483.3	508.9
47.5°	550.8	450.8	329.2	287.4	351.7	350.9	411.3	454.7	450.8	457.0	484.1
50°	510.4	419.8	328.4	246.3	323.0	326.1	373.4	426.0	426.0	431.4	460.2
52.5°	458.5	381.8	298.2	223.1	289.7	299.0	340.0	401.2	402.8	408.3	433.7
55°	411.3	342.3	276.5	205.3	250.2	270.3	307.5	375.7	378.8	384.2	407.4
57.5°	367.9	285.1	271.9	184.3	213.8	233.2	278.9	350.9	352.4	357.1	379.5
60°	321.5	206.1	249.4	161.9	182.0	196.7	252.5	321.5	326.9	329.9	349.3
62.5°	268.8	149.5	226.1	146.4	166.6	169.6	230.8	293.6	300.5	302.8	314.5
65°	191.3	125.5	192.1	133.2	150.3	151.1	207.6	264.9	271.1	275.0	283.5
67.5°	129.4	102.3	146.4	120.8	137.9	138.7	185.1	231.6	240.2	243.2	248.6
70°	89.9	68.1	108.4	107.6	124.0	125.5	161.1	201.4	209.1	211.4	214.6
72.5°	65.8	55.0	89.9	96.8	109.2	110.8	136.4	167.3	175.1	177.4	178.9
75°	50.4	58.1	72.8	84.5	92.9	93.7	111.6	136.4	141.8	143.3	144.1
77.5°	40.3	54.2	53.4	68.1	75.9	74.4	87.5	105.3	110.0	110.0	110.0
80°	30.2	42.6	40.3	48.8	55.7	54.2	62.8	75.2	76.7	78.2	77.5
82.5°	22.5	27.1	27.1	31.0	37.2	35.7	41.8	48.8	48.8	48.8	50.4
85°	13.9	15.5	12.4	16.2	20.9	20.2	23.3	26.3	27.1	27.1	25.6
87.5°	8.5	7.0	3.8	6.2	9.3	9.3	10.9	11.6	10.9	10.9	10.9
90°	3.0	2.1	1.2	2.1	3.0	3.2	5.1	7.5	8.8	7.8	5.9
92.5°	20.3	12.5	4.6	12.5	20.3	22.3	31.4	43.5	49.5	43.4	31.1
95°	39.9	25.5	11.1	25.5	39.9	43.5	77.2	122.2	144.7	129.1	97.9
97.5°	44.6	31.9	19.2	31.9	44.6	47.7	104.0	179.0	216.5	206.7	187.0
100°	48.5	37.0	25.5	37.0	48.5	51.4	113.8	197.0	238.6	239.3	240.8
102.5°	52.3	41.6	30.8	41.6	52.3	55.0	118.3	202.7	244.9	257.4	282.5
105°	58.0	48.9	39.8	48.9	58.0	60.3	121.6	203.3	244.2	272.3	328.6
107.5°	66.0	57.5	49.0	57.5	66.0	68.1	122.2	194.3	230.3	269.6	348.0
110°	70.6	63.0	55.3	63.0	70.6	72.5	121.3	186.3	218.8	262.6	350.4



TEST NUMBER: P933823

CATALOG NUMBER: SQ4-FA-025U-050D-927-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (continued):

	160°	170°	180°	190°	200°	202.5°	210°	220°	225°	230°	240°
112.5°	76.0	68.8	61.4	68.8	76.0	77.8	121.3	179.3	208.2	253.1	342.9
115°	84.2	77.5	70.7	77.5	84.2	85.9	122.4	171.2	195.6	238.9	325.3
117.5°	92.0	85.9	79.8	85.9	92.0	93.6	124.7	166.2	187.0	226.0	304.0
120°	96.6	90.9	85.2	90.9	96.6	98.1	126.6	164.5	183.5	219.1	290.4
122.5°	101.9	96.2	90.3	96.2	101.9	103.4	129.2	163.6	180.8	212.9	277.1
125°	109.0	103.6	98.3	103.6	109.0	110.3	132.8	162.9	177.9	205.2	259.8
127.5°	115.5	110.1	104.8	110.1	115.5	116.8	136.4	162.5	175.5	198.9	245.8
130°	119.7	114.0	108.3	114.0	119.7	121.2	139.0	162.7	174.6	195.4	237.1
132.5°	123.4	117.7	111.9	117.7	123.4	124.8	141.1	162.9	173.8	192.4	229.8
135°	127.7	122.4	117.2	122.4	127.7	129.0	143.5	162.8	172.4	188.0	219.3
137.5°	133.0	127.8	122.7	127.8	133.0	134.3	146.9	163.8	172.2	185.4	211.8
140°	136.7	131.9	127.1	131.9	136.7	137.9	149.1	163.9	171.3	182.7	205.6
142.5°	139.4	135.0	130.6	135.0	139.4	140.5	150.8	164.5	171.3	181.3	201.4
145°	143.6	139.8	135.9	139.8	143.6	144.6	153.2	164.5	170.2	178.3	194.7
147.5°	148.8	145.0	141.2	145.0	148.8	149.7	156.5	165.6	170.2	176.6	189.5
150°	151.5	148.1	144.7	148.1	151.5	152.4	158.3	166.2	170.2	175.6	186.5
152.5°	153.5	150.8	148.3	150.8	153.5	154.1	159.5	166.6	170.2	174.8	184.1
155°	157.5	155.5	153.6	155.5	157.5	157.9	162.0	167.5	170.2	173.9	181.3
157.5°	161.2	159.4	157.5	159.4	161.2	161.7	164.5	168.3	170.2	173.0	178.8
160°	163.1	161.7	160.2	161.7	163.1	163.5	165.7	168.7	170.2	172.6	177.6
162.5°	165.0	163.9	162.9	163.9	165.0	165.3	166.9	169.1	170.2	172.2	176.4
165°	167.7	166.7	165.8	166.7	167.7	167.9	168.7	169.7	170.2	171.6	174.6
167.5°	169.3	168.9	168.4	168.9	169.3	169.5	170.1	170.9	171.3	172.3	174.3
170°	171.1	170.6	170.2	170.6	171.1	171.2	171.2	171.3	171.3	172.3	174.3
172.5°	171.3	171.2	171.1	171.2	171.3	171.3	171.3	171.3	171.3	172.1	173.6
175°	172.4	172.4	172.4	172.4	172.4	172.4	172.0	171.6	171.3	171.8	172.8
177.5°	172.4	172.4	172.4	172.4	172.4	172.4	172.1	171.7	171.6	171.9	172.7
180°	172.4	172.4	172.4	172.4	172.4	172.4	172.4	172.4	172.4	172.4	172.4



TEST NUMBER: P933823

CATALOG NUMBER: SQ4-FA-025U-050D-927-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (continued):

	247.5°	250°	260°	270°	280°	290°	292.5°	300°	310°	315°	320°
0°	818.7	818.7	818.7	818.7	818.7	818.7	818.7	818.7	818.7	818.7	818.7
2.5°	790.1	787.8	790.9	782.3	790.9	787.8	790.1	795.5	790.9	793.9	797.1
5°	693.3	689.4	677.0	666.9	677.0	689.4	693.3	709.6	717.3	731.2	749.8
7.5°	619.7	616.6	613.5	607.3	613.5	616.6	619.7	624.3	632.1	644.5	658.4
10°	603.4	604.2	608.8	608.1	608.8	604.2	603.4	601.8	599.5	601.8	610.4
12.5°	645.3	652.2	677.8	676.2	677.8	652.2	645.3	614.2	593.4	589.4	591.1
15°	693.3	695.6	701.0	701.8	701.0	695.6	693.3	680.9	618.2	591.1	582.5
17.5°	697.9	698.7	702.5	702.5	702.5	698.7	697.9	692.5	671.6	635.2	587.1
20°	694.1	695.6	703.3	704.9	703.3	695.6	694.1	687.1	675.4	662.3	625.9
22.5°	692.5	695.6	701.8	701.0	701.8	695.6	692.5	681.7	671.6	662.3	647.6
25°	684.8	684.8	685.5	686.3	685.5	684.8	684.8	676.2	656.1	653.7	645.3
27.5°	668.5	670.1	674.7	673.9	674.7	670.1	668.5	665.4	643.7	641.4	635.2
30°	653.7	652.2	648.3	645.3	648.3	652.2	653.7	649.1	627.4	621.2	622.8
32.5°	629.0	625.1	621.2	618.9	621.2	625.1	629.0	627.4	611.1	602.7	604.2
35°	599.5	600.3	599.5	597.2	599.5	600.3	599.5	601.1	591.1	583.3	582.5
37.5°	578.7	580.2	579.4	576.3	579.4	580.2	578.7	577.1	563.1	560.8	562.3
40°	556.9	557.7	556.9	554.6	556.9	557.7	556.9	553.9	534.5	535.2	540.7
42.5°	536.0	535.2	532.9	531.4	532.9	535.2	536.0	531.4	506.6	504.3	514.4
45°	512.1	512.8	508.1	505.8	508.1	512.8	512.1	508.9	483.3	477.2	484.1
47.5°	488.0	488.0	484.1	481.8	484.1	488.0	488.0	484.1	457.0	450.8	454.7
50°	462.5	461.7	456.2	455.5	456.2	461.7	462.5	460.2	431.4	426.0	426.0
52.5°	433.0	433.0	433.7	435.4	433.7	433.0	433.0	433.7	408.3	402.8	401.2
55°	407.4	408.3	413.6	415.2	413.6	408.3	407.4	407.4	384.2	378.8	375.7
57.5°	381.1	381.1	385.0	385.0	385.0	381.1	381.1	379.5	357.1	352.4	350.9
60°	350.9	352.4	355.5	354.7	355.5	352.4	350.9	349.3	329.9	326.9	321.5
62.5°	319.2	320.7	321.5	319.9	321.5	320.7	319.2	314.5	302.8	300.5	293.6
65°	285.8	287.4	288.1	286.6	288.1	287.4	285.8	283.5	275.0	271.1	264.9
67.5°	251.7	250.9	250.2	253.3	250.2	250.9	251.7	248.6	243.2	240.2	231.6
70°	216.9	216.9	216.1	217.7	216.1	216.9	216.9	214.6	211.4	209.1	201.4
72.5°	179.7	178.9	182.0	179.7	182.0	178.9	179.7	178.9	177.4	175.1	167.3
75°	143.3	144.8	143.3	145.6	143.3	144.8	143.3	144.1	143.3	141.8	136.4
77.5°	109.2	110.8	109.2	109.2	109.2	110.8	109.2	110.0	110.0	110.0	105.3
80°	77.5	76.7	76.7	75.9	76.7	76.7	77.5	77.5	78.2	76.7	75.2
82.5°	49.6	48.8	48.8	50.4	48.8	48.8	49.6	50.4	48.8	48.8	48.8
85°	27.1	27.9	26.3	26.3	26.3	27.9	27.1	25.6	27.1	27.1	26.3
87.5°	10.1	9.3	9.3	9.3	9.3	9.3	10.1	10.9	10.9	10.9	11.6
90°	4.4	4.4	4.4	4.4	4.4	4.4	4.4	5.9	7.8	8.8	7.5
92.5°	21.9	21.1	17.6	14.1	17.6	21.1	21.9	31.1	43.4	49.5	43.5
95°	74.6	72.0	61.4	50.8	61.4	72.0	74.6	97.9	129.1	144.7	122.2
97.5°	172.2	167.2	147.1	126.9	147.1	167.2	172.2	187.0	206.7	216.5	179.0
100°	241.9	235.9	211.9	187.9	211.9	235.9	241.9	240.8	239.3	238.6	197.0
102.5°	301.4	296.2	275.7	255.1	275.7	296.2	301.4	282.5	257.4	244.9	202.7
105°	370.8	368.0	357.0	345.9	357.0	368.0	370.8	328.6	272.3	244.2	203.3
107.5°	406.9	407.6	410.2	412.9	410.2	407.6	406.9	348.0	269.6	230.3	194.3
110°	416.1	419.0	430.5	442.1	430.5	419.0	416.1	350.4	262.6	218.8	186.3



TEST NUMBER: P933823

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CANDELA DISTRIBUTION (continued):

	247.5°	250°	260°	270°	280°	290°	292.5°	300°	310°	315°	320°
112.5°	410.2	414.6	432.3	450.0	432.3	414.6	410.2	342.9	253.1	208.2	179.3
115°	390.2	396.3	420.8	445.4	420.8	396.3	390.2	325.3	238.9	195.6	171.2
117.5°	362.5	369.3	396.6	423.7	396.6	369.3	362.5	304.0	226.0	187.0	166.2
120°	344.0	350.6	377.0	403.4	377.0	350.6	344.0	290.4	219.1	183.5	164.5
122.5°	325.3	331.9	357.9	383.9	357.9	331.9	325.3	277.1	212.9	180.8	163.6
125°	300.7	306.7	330.6	354.7	330.6	306.7	300.7	259.8	205.2	177.9	162.9
127.5°	280.9	286.0	306.2	326.5	306.2	286.0	280.9	245.8	198.9	175.5	162.5
130°	268.3	273.0	291.8	310.5	291.8	273.0	268.3	237.1	195.4	174.6	162.7
132.5°	257.7	261.9	278.7	295.4	278.7	261.9	257.7	229.8	192.4	173.8	162.9
135°	242.7	246.3	260.7	275.2	260.7	246.3	242.7	219.3	188.0	172.4	162.8
137.5°	231.6	234.5	246.4	258.2	246.4	234.5	231.6	211.8	185.4	172.2	163.8
140°	222.7	225.5	236.5	247.6	236.5	225.5	222.7	205.6	182.7	171.3	163.9
142.5°	216.4	218.8	228.3	237.9	228.3	218.8	216.4	201.4	181.3	171.3	164.5
145°	207.1	208.8	216.1	223.3	216.1	208.8	207.1	194.7	178.3	170.2	164.5
147.5°	199.2	200.7	206.7	212.6	206.7	200.7	199.2	189.5	176.6	170.2	165.6
150°	194.7	195.9	200.7	205.6	200.7	195.9	194.7	186.5	175.6	170.2	166.2
152.5°	191.1	192.0	195.7	199.4	195.7	192.0	191.1	184.1	174.8	170.2	166.6
155°	186.8	187.4	189.8	192.3	189.8	187.4	186.8	181.3	173.9	170.2	167.5
157.5°	183.1	183.6	185.3	187.0	185.3	183.6	183.1	178.8	173.0	170.2	168.3
160°	181.3	181.5	182.5	183.5	182.5	181.5	181.3	177.6	172.6	170.2	168.7
162.5°	179.6	179.8	180.7	181.6	180.7	179.8	179.6	176.4	172.2	170.2	169.1
165°	176.9	177.1	178.1	179.1	178.1	177.1	176.9	174.6	171.6	170.2	169.7
167.5°	175.7	175.8	176.3	176.6	176.3	175.8	175.7	174.3	172.3	171.3	170.9
170°	175.7	175.7	175.7	175.7	175.7	175.7	175.7	174.3	172.3	171.3	171.3
172.5°	174.8	174.7	174.3	174.0	174.3	174.7	174.8	173.6	172.1	171.3	171.3
175°	173.6	173.6	173.6	173.6	173.6	173.6	173.6	172.8	171.8	171.3	171.6
177.5°	173.3	173.2	172.8	172.4	172.8	173.2	173.3	172.7	171.9	171.6	171.7
180°	172.4	172.4	172.4	172.4	172.4	172.4	172.4	172.4	172.4	172.4	172.4



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CANDELA DISTRIBUTION (continued):

	330°	337.5°	340°	350°	360°
0°	818.7	818.7	818.7	818.7	818.7
2.5°	808.7	812.6	814.9	818.0	825.7
5°	777.7	792.4	797.1	808.7	822.6
7.5°	709.6	754.4	766.8	794.7	816.4
10°	643.7	688.6	710.3	776.2	808.7
12.5°	610.4	636.7	651.4	743.6	797.9
15°	589.4	608.1	618.9	700.2	785.5
17.5°	573.2	586.4	594.1	657.7	768.4
20°	563.1	569.3	576.3	626.6	749.1
22.5°	556.2	552.3	557.7	605.0	722.7
25°	551.6	536.8	543.0	587.9	691.7
27.5°	555.4	522.8	525.2	572.4	659.2
30°	556.2	505.8	506.6	556.2	622.8
32.5°	550.8	488.0	488.8	536.0	581.7
35°	537.5	467.1	466.3	512.8	526.0
37.5°	519.8	444.6	444.6	487.3	464.8
40°	498.0	422.2	424.5	453.9	410.6
42.5°	471.7	398.2	401.2	409.8	370.3
45°	443.1	374.9	377.2	346.3	339.3
47.5°	411.3	350.9	351.7	287.4	329.2
50°	373.4	326.1	323.0	246.3	328.4
52.5°	340.0	299.0	289.7	223.1	298.2
55°	307.5	270.3	250.2	205.3	276.5
57.5°	278.9	233.2	213.8	184.3	271.9
60°	252.5	196.7	182.0	161.9	249.4
62.5°	230.8	169.6	166.6	146.4	226.1
65°	207.6	151.1	150.3	133.2	192.1
67.5°	185.1	138.7	137.9	120.8	146.4
70°	161.1	125.5	124.0	107.6	108.4
72.5°	136.4	110.8	109.2	96.8	89.9
75°	111.6	93.7	92.9	84.5	72.8
77.5°	87.5	74.4	75.9	68.1	53.4
80°	62.8	54.2	55.7	48.8	40.3
82.5°	41.8	35.7	37.2	31.0	27.1
85°	23.3	20.2	20.9	16.2	12.4
87.5°	10.9	9.3	9.3	6.2	3.8
90°	5.1	3.2	3.0	2.1	1.2
92.5°	31.4	22.3	20.3	12.5	4.6
95°	77.2	43.5	39.9	25.5	11.1
97.5°	104.0	47.7	44.6	31.9	19.2
100°	113.8	51.4	48.5	37.0	25.5
102.5°	118.3	55.0	52.3	41.6	30.8
105°	121.6	60.3	58.0	48.9	39.8
107.5°	122.2	68.1	66.0	57.5	49.0
110°	121.3	72.5	70.6	63.0	55.3



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CANDELA DISTRIBUTION (continued):

	330°	337.5°	340°	350°	360°
112.5°	121.3	77.8	76.0	68.8	61.4
115°	122.4	85.9	84.2	77.5	70.7
117.5°	124.7	93.6	92.0	85.9	79.8
120°	126.6	98.1	96.6	90.9	85.2
122.5°	129.2	103.4	101.9	96.2	90.3
125°	132.8	110.3	109.0	103.6	98.3
127.5°	136.4	116.8	115.5	110.1	104.8
130°	139.0	121.2	119.7	114.0	108.3
132.5°	141.1	124.8	123.4	117.7	111.9
135°	143.5	129.0	127.7	122.4	117.2
137.5°	146.9	134.3	133.0	127.8	122.7
140°	149.1	137.9	136.7	131.9	127.1
142.5°	150.8	140.5	139.4	135.0	130.6
145°	153.2	144.6	143.6	139.8	135.9
147.5°	156.5	149.7	148.8	145.0	141.2
150°	158.3	152.4	151.5	148.1	144.7
152.5°	159.5	154.1	153.5	150.8	148.3
155°	162.0	157.9	157.5	155.5	153.6
157.5°	164.5	161.7	161.2	159.4	157.5
160°	165.7	163.5	163.1	161.7	160.2
162.5°	166.9	165.3	165.0	163.9	162.9
165°	168.7	167.9	167.7	166.7	165.8
167.5°	170.1	169.5	169.3	168.9	168.4
170°	171.2	171.2	171.1	170.6	170.2
172.5°	171.3	171.3	171.3	171.2	171.1
175°	172.0	172.4	172.4	172.4	172.4
177.5°	172.1	172.4	172.4	172.4	172.4
180°	172.4	172.4	172.4	172.4	172.4



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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	11.76	12.78	12.57	13.62	14.65	14.58	15.60	15.40	16.44	17.47
	3H	12.25	13.16	13.07	14.01	15.07	15.94	16.86	16.77	17.70	18.76
	4H	12.45	13.31	13.29	14.16	15.23	16.39	17.26	17.23	18.11	19.18
	6H	12.58	13.37	13.43	14.23	15.31	16.68	17.48	17.54	18.34	19.42
	8H	12.58	13.34	13.44	14.22	15.30	16.76	17.52	17.62	18.40	19.48
	12H	12.56	13.28	13.43	14.15	15.26	16.80	17.53	17.67	18.40	19.51
4H	2H	12.81	13.68	13.66	14.53	15.60	15.01	15.88	15.86	16.73	17.80
	3H	13.85	14.57	14.71	15.46	16.54	16.53	17.25	17.39	18.14	19.22
	4H	14.14	14.79	15.01	15.67	16.79	17.07	17.72	17.94	18.60	19.72
	6H	14.27	14.84	15.16	15.74	16.86	17.44	18.01	18.33	18.91	20.03
	8H	14.28	14.81	15.17	15.71	16.84	17.55	18.08	18.44	18.98	20.11
	12H	14.25	14.73	15.16	15.65	16.78	17.61	18.09	18.52	19.01	20.14
8H	4H	14.60	15.13	15.49	16.03	17.16	17.20	17.73	18.09	18.63	19.76
	6H	14.87	15.31	15.79	16.25	17.38	17.65	18.08	18.56	19.03	20.15
	8H	14.91	15.30	15.84	16.24	17.38	17.80	18.19	18.72	19.12	20.27
	12H	14.90	15.25	15.83	16.17	17.37	17.90	18.24	18.83	19.17	20.37
12H	4H	14.61	15.09	15.52	16.01	17.14	17.18	17.65	18.08	18.57	19.71
	6H	14.93	15.32	15.86	16.25	17.40	17.64	18.03	18.57	18.97	20.11
	8H	15.01	15.35	15.93	16.27	17.47	17.81	18.15	18.74	19.08	20.28