

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P243763

Luminaire Tested: **S125RDR-H375D927-X4F0-XX-UDD-A-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243763
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-71)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125RDR-H375D927-X4F0-XX-UDD-A-W
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 2700K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1112.9 lumens
Efficiency: N/A
Efficacy: 99.4 lumens/watt
Spacing Criteria (0/90/45): 1.42 / 1.22 / 1.5
Luminous Opening: Rectangular (W 3.88' x L: 0.39' x H: 0')
CIE Type: Direct

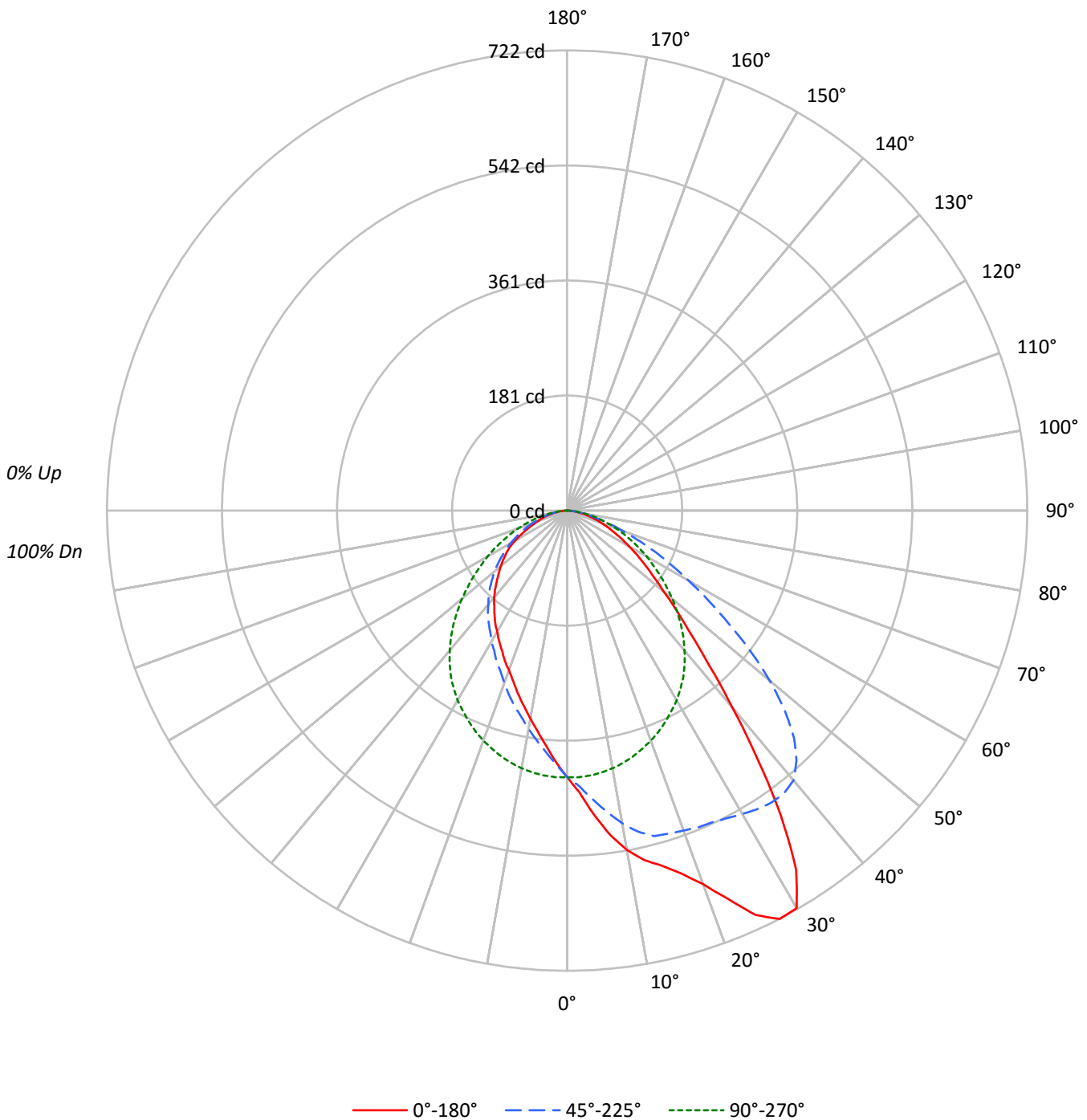
Input Watts (W): 11.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88					86				
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75					73				
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65					63				
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	66	61	56					54				
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50					48				
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44					42				
7	67	54	46	40	66	54	46	40	52	45	40	51	44	39	49	44	39					37				
8	63	50	42	36	61	49	41	36	48	41	36	47	40	35	45	40	35					33				
9	59	46	38	32	57	45	38	32	44	37	32	43	37	32	42	36	32					30				
10	55	42	35	29	54	42	34	29	41	34	29	40	34	29	39	33	29					27				

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	2972	2972	2972
5°	3412	2977	2648
10°	3904	2962	2393
15°	4246	2938	2189
20°	4718	2904	2016
25°	5489	2863	1899
30°	5911	2821	1801
35°	5078	2758	1723
40°	3741	2658	1652
45°	2763	2535	1567
50°	2189	2384	1504
55°	1849	2208	1446
60°	1593	2045	1339
65°	1382	1863	1165
70°	1214	1706	1020
75°	1030	1494	967
80°	802	1248	802
85°	701	1003	734



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.2	3.6
10°-20°	119.1	10.7
20°-30°	189.9	17.1
30°-40°	230.6	20.7
40°-50°	207.8	18.7
50°-60°	159.8	14.4
60°-70°	103.7	9.3
70°-80°	49.9	4.5
80°-90°	11.8	1.1
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	349.3	31.4
0°-40°	579.9	52.1
0°-60°	947.5	85.1
0°-90°	1112.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1112.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	418	418	418	418	418	
5°	478	454	417	380	371	48
15°	577	529	399	318	298	165
25°	700	540	365	262	242	320
35°	585	559	318	215	199	358
45°	275	503	252	171	156	218
55°	149	309	178	125	117	135
65°	82	150	111	79	69	82
75°	38	51	54	39	35	40
85°	9	9	12	10	9	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	418.2	418.2	418.2	418.2	418.2	418.2	418.2	418.2	418.2	418.2	418.2
2.5°	442.4	444.0	442.7	443.5	442.2	441.6	439.9	437.4	434.9	432.6	432.4
5°	478.2	477.9	476.5	474.7	473.4	470.1	468.4	462.8	459.0	454.3	452.0
7.5°	512.4	511.5	509.5	507.0	505.9	501.6	496.9	489.8	483.8	476.5	471.1
10°	540.9	540.7	539.2	537.6	533.1	528.3	523.8	516.3	507.4	498.3	490.6
12.5°	561.8	560.9	559.1	556.3	552.6	549.3	543.4	536.6	525.6	516.3	505.9
15°	577.0	576.7	574.0	573.0	565.9	561.3	553.3	546.5	538.1	528.8	517.5
17.5°	597.2	597.9	595.6	590.0	583.5	576.4	565.1	554.0	542.2	531.4	522.3
20°	623.8	622.1	618.1	611.3	599.7	590.9	579.7	565.9	550.0	534.1	521.0
22.5°	659.3	657.4	651.1	642.8	628.3	612.2	594.9	574.4	556.1	537.9	520.6
25°	700.0	696.6	687.3	678.3	657.6	640.5	614.8	590.3	563.8	539.5	520.1
27.5°	722.3	722.3	718.0	708.2	691.8	666.6	640.4	607.7	577.0	543.9	516.3
30°	720.3	719.1	720.8	716.6	706.0	687.1	661.1	626.8	587.6	549.7	516.7
32.5°	668.9	669.4	679.3	686.1	691.4	686.8	669.9	638.9	599.9	555.3	515.3
35°	585.3	586.6	604.2	615.8	639.5	653.1	657.1	640.4	605.4	559.3	513.0
37.5°	489.8	489.8	510.2	527.8	554.3	587.8	612.8	619.1	602.1	559.1	511.0
40°	403.2	402.8	418.8	440.4	468.7	505.7	543.0	575.0	579.2	552.6	504.1
42.5°	330.0	329.1	346.7	358.6	388.5	421.5	471.1	516.3	542.2	532.6	493.8
45°	274.9	274.2	285.7	299.3	320.3	354.7	396.3	446.5	490.0	503.2	474.5
47.5°	233.5	233.8	239.9	251.4	269.3	293.8	331.1	377.7	431.4	462.1	450.3
50°	198.0	199.1	203.8	212.4	225.5	245.2	277.2	319.4	374.6	415.2	417.7
52.5°	171.4	173.1	178.1	182.7	193.7	207.6	232.5	268.9	314.5	363.3	380.7
55°	149.2	150.1	152.9	157.9	166.0	177.6	195.7	223.5	265.8	309.2	339.9
57.5°	130.7	130.7	132.5	136.0	142.4	152.9	165.0	188.0	223.7	263.0	295.6
60°	112.1	112.8	114.1	117.9	122.2	130.2	141.9	156.5	187.4	220.2	255.3
62.5°	96.5	97.7	99.0	100.8	104.8	110.4	118.7	132.2	152.9	183.2	214.6
65°	82.2	83.4	83.6	85.7	88.4	93.0	99.3	109.1	126.3	150.2	176.1
67.5°	69.6	70.1	70.6	72.3	74.8	77.8	81.9	89.2	102.8	118.9	144.1
70°	58.4	58.7	58.9	60.7	61.8	64.5	66.7	71.3	79.9	92.4	111.9
72.5°	47.8	47.3	47.1	48.6	49.1	51.2	53.9	57.2	61.8	70.6	85.2
75°	37.5	37.6	37.8	38.6	38.8	39.8	41.5	43.6	45.8	50.9	60.2
77.5°	28.9	28.2	28.2	29.2	29.5	29.7	30.8	32.0	33.2	36.1	39.8
80°	19.6	19.9	19.9	19.9	20.1	20.4	21.1	22.1	22.9	24.7	25.4
82.5°	13.9	13.9	13.8	14.1	14.3	14.4	14.4	14.4	14.9	15.4	16.1
85°	8.6	8.8	8.3	8.6	8.8	8.8	8.8	8.8	9.3	9.1	9.3
87.5°	3.6	3.8	3.8	4.0	4.0	4.1	4.0	4.1	4.0	4.0	4.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	418.2	418.2	418.2	418.2	418.2	418.2	418.2	418.2	418.2	418.2	418.2
2.5°	431.9	429.9	429.0	427.0	424.3	422.6	421.0	418.7	416.8	414.0	411.5
5°	447.9	443.9	440.2	435.3	430.4	426.3	422.0	417.2	412.9	408.1	402.9
7.5°	465.6	459.3	451.7	442.9	435.4	429.0	421.7	414.5	408.1	400.4	393.5
10°	482.7	472.6	462.4	450.7	439.7	430.1	420.3	410.4	401.9	392.5	383.9
12.5°	495.9	486.3	471.2	456.6	442.4	429.9	417.7	405.6	394.5	384.0	373.7
15°	507.5	491.6	478.9	462.9	445.5	428.6	413.4	399.3	385.8	373.6	363.1
17.5°	510.9	496.6	482.7	464.1	445.4	426.1	408.6	391.8	376.9	363.3	351.5
20°	510.5	496.1	481.0	463.3	443.4	422.3	402.8	384.0	367.1	351.5	338.9
22.5°	505.6	491.6	476.4	458.5	438.2	416.5	396.0	375.2	356.8	340.6	327.6
25°	500.2	482.7	466.8	448.7	429.4	409.4	387.5	365.1	345.9	329.0	314.4
27.5°	495.6	474.5	455.0	437.2	417.5	399.4	377.7	354.3	334.6	316.9	301.8
30°	488.1	465.9	442.2	422.8	403.7	384.8	364.9	343.7	322.2	304.1	289.0
32.5°	481.7	453.7	428.0	406.1	387.0	370.4	351.4	331.0	309.9	292.7	276.4
35°	474.5	441.1	414.2	388.5	369.4	351.4	336.3	317.9	297.0	278.7	264.1
37.5°	466.1	428.1	397.3	371.1	351.4	332.8	319.2	302.8	283.9	265.8	251.4
40°	456.6	414.9	379.4	352.3	331.1	312.6	301.1	286.5	270.4	252.5	239.1
42.5°	444.7	400.8	363.1	333.6	310.1	293.3	281.9	269.8	255.0	239.4	224.8
45°	429.6	383.2	343.7	312.6	289.3	273.1	261.2	252.2	240.4	225.8	212.1
47.5°	411.2	364.8	323.8	291.5	269.1	253.5	242.4	233.5	224.5	211.9	198.8
50°	386.8	343.7	304.4	271.4	247.7	232.6	222.7	215.6	207.4	197.1	185.2
52.5°	360.0	320.0	281.5	250.7	227.8	212.7	202.5	196.5	190.3	181.9	171.6
55°	328.8	296.3	259.7	229.5	207.1	192.2	184.0	178.2	173.1	166.6	158.0
57.5°	295.8	267.3	235.5	207.6	186.5	172.4	165.3	160.5	156.2	151.6	144.4
60°	261.2	240.9	210.7	185.2	166.8	155.2	148.4	143.9	139.9	136.1	130.8
62.5°	225.0	208.3	185.7	164.0	147.6	136.6	131.7	127.8	123.7	120.4	116.6
65°	188.4	178.7	163.2	142.8	127.7	118.7	113.9	110.8	108.8	105.0	102.0
67.5°	155.0	149.7	136.5	122.7	111.1	103.0	98.5	96.2	94.0	92.2	88.9
70°	123.4	119.5	111.9	102.1	93.0	86.1	82.7	82.1	79.1	77.3	75.6
72.5°	94.0	93.0	86.7	82.4	77.3	71.8	69.3	68.0	66.0	64.3	63.7
75°	66.8	68.3	66.3	64.2	61.7	57.2	55.0	54.4	52.6	52.1	51.2
77.5°	45.6	47.8	48.4	47.4	46.3	44.8	43.3	42.6	40.8	40.5	40.0
80°	28.7	31.8	33.0	32.8	32.3	32.5	30.7	30.5	29.7	29.2	29.7
82.5°	17.4	19.1	21.2	21.7	21.1	21.4	20.9	20.2	20.2	20.6	19.9
85°	9.5	9.6	10.6	11.3	12.1	12.8	12.1	12.3	12.1	12.1	11.6
87.5°	4.1	4.3	4.3	4.1	4.5	4.8	5.5	5.8	5.6	5.1	4.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	418.2	418.2	418.2	418.2	418.2	418.2	418.2	418.2	418.2	418.2	418.2
2.5°	409.6	408.4	406.4	404.7	400.9	398.3	397.9	398.1	397.8	397.4	397.3
5°	399.6	395.8	392.1	389.0	384.7	380.4	378.4	377.5	377.2	375.4	376.4
7.5°	389.0	383.2	378.9	372.9	367.8	364.1	360.6	359.0	358.6	356.2	355.5
10°	377.7	370.8	364.3	358.3	353.2	348.0	343.9	342.4	340.4	338.4	335.4
12.5°	366.6	358.0	350.9	344.2	337.3	331.5	328.1	326.0	323.5	321.7	320.7
15°	353.3	346.0	337.3	330.1	323.0	317.9	313.4	309.4	307.1	305.6	301.4
17.5°	341.4	331.8	323.5	316.7	308.9	303.1	298.5	295.1	291.2	288.2	285.5
20°	328.6	318.7	311.1	302.9	295.0	287.8	282.0	279.4	276.6	273.8	272.3
22.5°	314.9	306.3	297.6	289.2	280.7	273.1	269.4	265.6	263.1	260.3	258.3
25°	302.9	293.5	284.9	275.4	266.1	261.6	256.7	252.9	250.9	248.1	245.9
27.5°	290.2	281.0	270.8	261.0	255.5	247.9	244.6	241.6	238.9	236.1	234.6
30°	278.2	267.6	257.3	249.7	242.6	237.1	234.0	230.3	226.7	225.3	223.3
32.5°	265.6	254.2	245.2	237.6	231.6	225.0	222.0	219.0	215.6	213.9	212.1
35°	252.5	241.4	232.6	225.7	219.5	214.6	211.2	208.1	205.9	203.4	202.1
37.5°	238.8	229.1	220.7	213.7	208.1	204.1	200.0	197.5	194.5	192.2	191.2
40°	225.7	217.0	208.9	202.5	197.3	192.5	188.9	185.7	183.9	181.9	180.2
42.5°	213.9	204.9	198.0	191.2	186.5	181.9	178.2	175.9	172.8	171.9	169.6
45°	201.3	193.0	186.0	179.7	174.9	171.1	166.8	164.0	162.0	160.0	159.2
47.5°	188.5	180.9	174.4	168.6	163.7	159.3	156.0	153.0	150.9	149.1	148.1
50°	176.1	169.5	163.0	157.4	152.2	149.1	145.1	141.8	140.1	138.1	137.0
52.5°	163.0	157.5	150.6	145.7	140.9	136.8	132.8	130.7	129.0	127.3	126.5
55°	150.7	144.9	138.9	133.8	129.2	124.9	121.7	120.0	117.9	116.9	116.7
57.5°	138.1	132.2	127.2	122.5	117.2	113.9	111.1	109.1	107.3	106.5	106.5
60°	124.4	119.5	114.9	109.8	106.0	102.1	99.2	97.8	96.0	95.7	94.5
62.5°	111.8	107.3	102.8	98.0	94.5	90.7	88.5	86.7	85.7	84.4	83.1
65°	98.7	94.7	90.4	86.2	83.4	79.3	77.3	75.1	74.0	72.5	70.8
67.5°	86.1	82.2	78.3	74.4	72.1	68.1	66.8	64.2	63.3	61.7	60.2
70°	72.8	70.1	67.0	63.2	61.2	58.0	56.7	54.2	52.9	51.9	51.1
72.5°	61.3	58.9	55.2	52.7	50.2	48.3	46.1	44.9	43.8	42.9	42.8
75°	50.1	46.9	44.8	42.4	40.8	38.8	37.8	37.0	36.5	36.0	35.5
77.5°	38.3	37.0	34.8	32.5	31.2	30.3	29.7	29.3	28.9	28.7	28.2
80°	28.5	26.7	25.4	24.5	23.5	22.9	22.4	21.2	20.6	20.2	19.9
82.5°	18.9	18.4	17.4	16.6	15.8	15.6	15.1	14.8	14.6	14.6	14.4
85°	11.4	10.1	10.1	9.9	9.9	9.8	9.5	9.5	9.1	9.6	9.6
87.5°	4.6	4.6	4.3	4.3	4.5	4.1	4.0	4.0	4.0	3.8	4.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	418.2	418.2	418.2	418.2
2.5°	397.3	396.5	396.6	395.6
5°	374.6	374.1	372.4	371.1
7.5°	353.8	351.7	351.5	350.2
10°	334.4	332.4	331.5	331.6
12.5°	317.5	315.4	315.4	314.0
15°	299.5	297.3	297.6	297.5
17.5°	284.5	283.0	281.9	280.9
20°	269.9	268.1	267.5	266.6
22.5°	256.5	255.2	255.3	255.3
25°	243.7	243.9	242.4	242.1
27.5°	232.5	232.1	231.8	231.1
30°	221.9	220.5	220.2	219.5
32.5°	210.9	210.7	209.4	209.9
35°	199.8	199.3	199.0	198.6
37.5°	189.5	188.5	188.4	188.0
40°	179.1	178.7	177.3	178.1
42.5°	167.8	167.1	167.1	167.1
45°	158.3	156.5	156.5	155.9
47.5°	147.7	147.1	146.7	145.6
50°	137.3	136.3	136.0	136.0
52.5°	126.5	126.3	126.7	126.0
55°	117.1	117.2	117.1	116.7
57.5°	106.8	106.0	106.0	106.1
60°	94.5	94.5	94.8	94.2
62.5°	82.7	82.4	81.2	80.9
65°	70.6	69.3	69.1	69.3
67.5°	59.9	59.4	58.5	58.7
70°	50.6	50.4	49.6	49.1
72.5°	42.3	42.3	41.8	41.8
75°	35.3	35.0	34.8	35.2
77.5°	27.2	26.4	26.7	26.2
80°	19.7	20.1	19.7	19.6
82.5°	14.6	14.3	14.4	14.3
85°	9.3	9.0	9.1	9.0
87.5°	3.8	4.0	4.0	3.6
90°	0.0	0.0	0.0	0.0

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