

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: P243778

Luminaire Tested: **S125RDR-H375D840-X4F0-XX-UDD-A-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243778
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-H375D840-X4F0-XX-UDD-A-W
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1418.7 lumens
Efficiency: N/A
Efficacy: 126.7 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

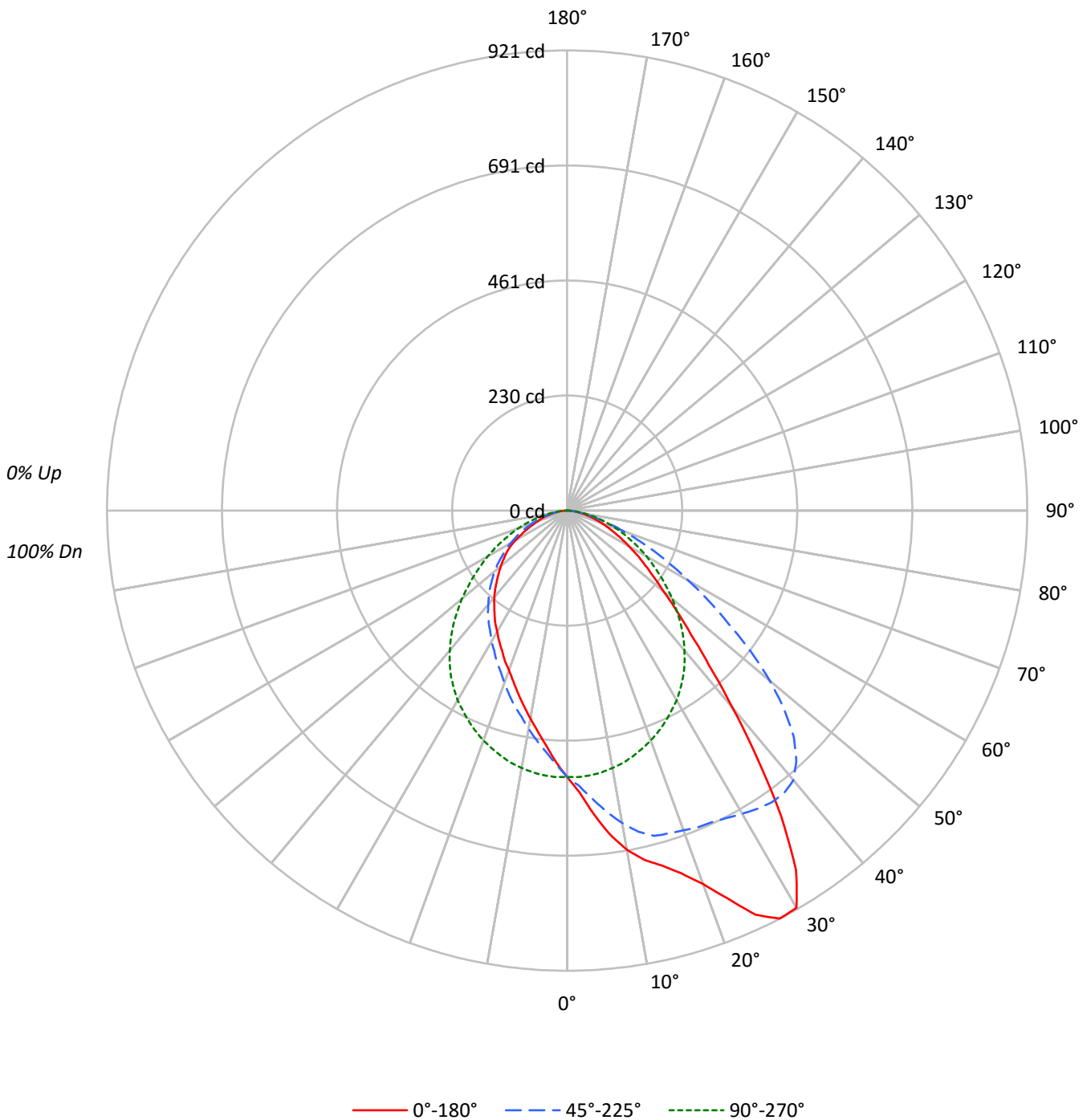
Input Watts (W): 11.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3789	3789	3789
5°	4349	3794	3375
10°	4976	3775	3051
15°	5413	3745	2790
20°	6014	3702	2571
25°	6998	3650	2420
30°	7536	3596	2297
35°	6474	3516	2197
40°	4770	3389	2106
45°	3523	3231	1997
50°	2791	3038	1916
55°	2357	2815	1844
60°	2031	2608	1707
65°	1762	2375	1487
70°	1546	2174	1301
75°	1313	1903	1230
80°	1019	1592	1019
85°	897	1272	930



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.3	3.6
10°-20°	151.8	10.7
20°-30°	242.1	17.1
30°-40°	294.0	20.7
40°-50°	264.9	18.7
50°-60°	203.7	14.4
60°-70°	132.2	9.3
70°-80°	63.6	4.5
80°-90°	15.1	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°	445.2	31.4
0°-40°	739.2	52.1
0°-60°	1207.9	85.1
0°-90°	1418.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1418.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	533	533	533	533	533	
5°	610	579	532	485	473	61
15°	736	674	509	405	379	211
25°	892	688	465	334	309	408
35°	746	713	405	274	253	456
45°	350	642	322	218	199	278
55°	190	394	227	159	149	172
65°	105	192	141	101	88	105
75°	48	65	69	50	45	51
85°	11	12	16	12	11	13
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°	533.1	533.1	533.1	533.1	533.1	533.1	533.1	533.1	533.1	533.1	533.1
2.5°	563.9	566.1	564.4	565.4	563.7	562.9	560.8	557.6	554.4	551.5	551.3
5°	609.6	609.2	607.5	605.2	603.5	599.2	597.1	589.9	585.1	579.2	576.2
7.5°	653.1	652.1	649.5	646.4	644.9	639.4	633.5	624.4	616.8	607.5	600.5
10°	689.5	689.3	687.4	685.3	679.6	673.4	667.7	658.2	646.8	635.2	625.5
12.5°	716.1	715.1	712.7	709.2	704.5	700.3	692.7	684.0	670.1	658.2	644.9
15°	735.6	735.2	731.8	730.5	721.4	715.5	705.4	696.7	685.9	674.1	659.7
17.5°	761.4	762.2	759.3	752.1	743.8	734.7	720.4	706.2	691.2	677.4	665.8
20°	795.2	793.1	788.0	779.3	764.5	753.3	739.0	721.4	701.1	680.8	664.1
22.5°	840.4	838.1	830.1	819.5	800.9	780.4	758.4	732.2	708.9	685.7	663.7
25°	892.4	888.0	876.1	864.7	838.3	816.5	783.8	752.5	718.7	687.8	663.1
27.5°	920.7	920.7	915.2	902.8	881.8	849.7	816.3	774.7	735.6	693.3	658.2
30°	918.2	916.7	918.8	913.6	900.0	875.9	842.7	799.0	749.1	700.7	658.6
32.5°	852.7	853.3	866.0	874.7	881.4	875.5	853.9	814.4	764.7	707.9	656.9
35°	746.1	747.8	770.2	785.0	815.3	832.6	837.7	816.3	771.7	713.0	654.0
37.5°	624.4	624.4	650.4	672.8	706.6	749.3	781.2	789.3	767.5	712.7	651.5
40°	514.1	513.4	533.9	561.4	597.6	644.7	692.2	733.0	738.3	704.5	642.6
42.5°	420.6	419.6	442.0	457.2	495.2	537.3	600.5	658.2	691.2	678.9	629.5
45°	350.5	349.6	364.2	381.5	408.4	452.1	505.2	569.2	624.6	641.5	604.9
47.5°	297.6	298.0	305.9	320.4	343.3	374.6	422.1	481.5	550.0	589.1	574.1
50°	252.4	253.9	259.8	270.8	287.5	312.6	353.4	407.1	477.5	529.3	532.4
52.5°	218.6	220.7	227.0	232.9	246.9	264.6	296.3	342.8	401.0	463.1	485.3
55°	190.2	191.3	194.9	201.2	211.6	226.4	249.4	284.9	338.8	394.2	433.3
57.5°	166.6	166.6	168.9	173.3	181.6	194.9	210.3	239.7	285.1	335.2	376.9
60°	142.9	143.7	145.4	150.3	155.8	165.9	180.9	199.5	238.9	280.7	325.5
62.5°	123.0	124.5	126.2	128.5	133.6	140.8	151.3	168.5	194.9	233.6	273.5
65°	104.8	106.3	106.5	109.3	112.7	118.6	126.6	139.1	161.1	191.5	224.5
67.5°	88.8	89.4	90.0	92.2	95.3	99.1	104.4	113.7	131.1	151.6	183.7
70°	74.4	74.8	75.0	77.4	78.8	82.2	85.0	90.9	101.9	117.7	142.7
72.5°	60.9	60.2	60.0	61.9	62.6	65.3	68.7	72.9	78.8	90.0	108.6
75°	47.8	48.0	48.2	49.2	49.5	50.7	52.8	55.6	58.3	64.9	76.7
77.5°	36.8	35.9	35.9	37.2	37.6	37.8	39.3	40.8	42.3	46.1	50.7
80°	24.9	25.4	25.4	25.4	25.6	26.0	26.8	28.1	29.2	31.5	32.3
82.5°	17.8	17.8	17.5	18.0	18.2	18.4	18.4	18.4	19.0	19.7	20.5
85°	11.0	11.2	10.6	11.0	11.2	11.2	11.2	11.2	11.8	11.6	11.8
87.5°	4.7	4.9	4.9	5.1	5.1	5.3	5.1	5.3	5.1	5.1	5.3
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°	533.1	533.1	533.1	533.1	533.1	533.1	533.1	533.1	533.1	533.1	533.1
2.5°	550.6	548.1	546.8	544.3	540.9	538.8	536.7	533.7	531.4	527.8	524.6
5°	570.9	565.8	561.2	554.9	548.7	543.4	537.9	531.8	526.3	520.2	513.6
7.5°	593.5	585.5	575.8	564.6	555.1	546.8	537.5	528.4	520.2	510.5	501.6
10°	615.3	602.4	589.5	574.5	560.6	548.3	535.8	523.1	512.4	500.3	489.3
12.5°	632.2	620.0	600.7	582.1	563.9	548.1	532.4	517.0	502.9	489.5	476.4
15°	647.0	626.7	610.4	590.2	568.0	546.4	527.0	509.0	491.9	476.2	462.9
17.5°	651.2	633.1	615.3	591.6	567.7	543.2	520.8	499.5	480.5	463.1	448.1
20°	650.8	632.4	613.2	590.6	565.2	538.4	513.4	489.5	468.0	448.1	432.0
22.5°	644.5	626.7	607.3	584.4	558.7	531.0	504.8	478.3	454.9	434.2	417.7
25°	637.7	615.3	595.0	572.0	547.5	521.9	494.0	465.4	440.9	419.4	400.8
27.5°	631.8	604.9	580.0	557.4	532.2	509.2	481.5	451.7	426.6	403.9	384.7
30°	622.3	594.0	563.7	539.0	514.7	490.6	465.2	438.2	410.7	387.7	368.4
32.5°	614.0	578.3	545.6	517.7	493.3	472.2	447.9	421.9	395.1	373.1	352.4
35°	604.9	562.3	528.0	495.2	470.9	447.9	428.7	405.2	378.6	355.3	336.7
37.5°	594.2	545.8	506.4	473.1	447.9	424.2	406.9	386.0	361.9	338.8	320.4
40°	582.1	528.9	483.6	449.2	422.1	398.4	383.9	365.3	344.7	321.9	304.8
42.5°	566.9	510.9	462.9	425.3	395.3	373.9	359.3	343.9	325.1	305.2	286.6
45°	547.7	488.5	438.2	398.4	368.8	348.1	332.9	321.5	306.5	287.9	270.3
47.5°	524.2	465.0	412.8	371.6	343.1	323.2	309.0	297.6	286.2	270.1	253.4
50°	493.1	438.2	388.1	346.0	315.8	296.6	283.9	274.8	264.4	251.3	236.1
52.5°	458.9	407.9	358.9	319.6	290.4	271.2	258.1	250.5	242.7	231.9	218.8
55°	419.2	377.7	331.0	292.5	264.0	245.0	234.6	227.2	220.7	212.4	201.4
57.5°	377.1	340.7	300.1	264.6	237.8	219.8	210.7	204.6	199.1	193.2	184.1
60°	332.9	307.1	268.7	236.1	212.6	197.8	189.2	183.5	178.4	173.5	166.8
62.5°	286.8	265.5	236.7	209.0	188.1	174.2	167.8	163.0	157.7	153.5	148.6
65°	240.1	227.9	208.0	182.0	162.8	151.3	145.2	141.2	138.7	133.8	130.0
67.5°	197.6	190.9	174.0	156.4	141.6	131.3	125.6	122.6	119.8	117.5	113.3
70°	157.3	152.4	142.7	130.2	118.6	109.7	105.5	104.6	100.8	98.5	96.4
72.5°	119.8	118.6	110.5	105.1	98.5	91.5	88.4	86.7	84.1	82.0	81.2
75°	85.2	87.1	84.5	81.8	78.6	72.9	70.2	69.3	67.0	66.4	65.3
77.5°	58.1	60.9	61.7	60.5	59.0	57.1	55.2	54.3	52.0	51.6	50.9
80°	36.6	40.6	42.1	41.9	41.2	41.4	39.1	38.9	37.8	37.2	37.8
82.5°	22.2	24.3	27.1	27.7	26.8	27.3	26.6	25.8	25.8	26.2	25.4
85°	12.0	12.3	13.5	14.4	15.4	16.3	15.4	15.6	15.4	15.4	14.8
87.5°	5.3	5.5	5.5	5.3	5.7	6.1	7.0	7.4	7.2	6.6	5.7
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°	533.1	533.1	533.1	533.1	533.1	533.1	533.1	533.1	533.1	533.1	533.1
2.5°	522.1	520.6	518.1	516.0	511.1	507.7	507.3	507.5	507.1	506.7	506.4
5°	509.4	504.5	499.9	495.9	490.4	484.9	482.4	481.3	480.9	478.5	479.8
7.5°	495.9	488.5	483.0	475.4	468.8	464.2	459.7	457.6	457.2	454.0	453.2
10°	481.5	472.6	464.4	456.8	450.2	443.7	438.4	436.5	433.9	431.4	427.6
12.5°	467.3	456.4	447.3	438.8	429.9	422.5	418.3	415.6	412.4	410.1	408.8
15°	450.4	441.1	429.9	420.8	411.8	405.2	399.5	394.4	391.5	389.6	384.3
17.5°	435.2	423.0	412.4	403.7	393.8	386.4	380.5	376.2	371.2	367.4	364.0
20°	418.9	406.3	396.5	386.2	376.0	366.9	359.5	356.2	352.6	349.0	347.1
22.5°	401.4	390.4	379.4	368.6	357.9	348.1	343.5	338.6	335.4	331.9	329.3
25°	386.2	374.1	363.1	351.1	339.3	333.5	327.2	322.3	319.8	316.2	313.5
27.5°	369.9	358.3	345.2	332.7	325.7	316.0	311.8	308.0	304.6	301.0	299.1
30°	354.7	341.2	328.1	318.3	309.2	302.3	298.2	293.6	288.9	287.3	284.7
32.5°	338.6	324.0	312.6	302.9	295.3	286.8	283.0	279.2	274.8	272.7	270.3
35°	321.9	307.8	296.6	287.7	279.9	273.5	269.3	265.3	262.5	259.4	257.7
37.5°	304.4	292.1	281.3	272.5	265.3	260.2	254.9	251.7	247.9	245.0	243.7
40°	287.7	276.7	266.3	258.1	251.5	245.4	240.8	236.7	234.4	231.9	229.8
42.5°	272.7	261.3	252.4	243.7	237.8	231.9	227.2	224.3	220.3	219.2	216.2
45°	256.6	246.0	237.2	229.1	223.0	218.1	212.6	209.0	206.5	204.0	202.9
47.5°	240.3	230.6	222.4	215.0	208.6	203.1	198.9	195.1	192.3	190.0	188.8
50°	224.5	216.0	207.8	200.6	194.0	190.0	185.0	180.7	178.6	176.1	174.6
52.5°	207.8	200.8	191.9	185.8	179.7	174.4	169.3	166.6	164.4	162.3	161.3
55°	192.1	184.7	177.1	170.6	164.7	159.2	155.1	153.0	150.3	149.0	148.8
57.5°	176.1	168.5	162.1	156.2	149.4	145.2	141.6	139.1	136.8	135.7	135.7
60°	158.5	152.4	146.5	139.9	135.1	130.2	126.4	124.7	122.4	122.0	120.5
62.5°	142.5	136.8	131.1	124.9	120.5	115.6	112.9	110.5	109.3	107.6	105.9
65°	125.8	120.7	115.2	109.9	106.3	101.0	98.5	95.8	94.3	92.4	90.3
67.5°	109.7	104.8	99.8	94.9	91.9	86.9	85.2	81.8	80.7	78.6	76.7
70°	92.8	89.4	85.4	80.5	78.0	74.0	72.3	69.1	67.4	66.2	65.1
72.5°	78.2	75.0	70.4	67.2	64.0	61.5	58.8	57.3	55.8	54.7	54.5
75°	63.8	59.8	57.1	54.1	52.0	49.5	48.2	47.1	46.5	45.9	45.2
77.5°	48.8	47.1	44.4	41.4	39.7	38.7	37.8	37.4	36.8	36.6	35.9
80°	36.4	34.0	32.3	31.3	30.0	29.2	28.5	27.1	26.2	25.8	25.4
82.5°	24.1	23.5	22.2	21.1	20.1	19.9	19.2	18.8	18.6	18.6	18.4
85°	14.6	12.9	12.9	12.7	12.7	12.5	12.0	12.0	11.6	12.3	12.3
87.5°	5.9	5.9	5.5	5.5	5.7	5.3	5.1	5.1	5.1	4.9	5.1
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):

	165°	170°	175°	180°
0°	533.1	533.1	533.1	533.1
2.5°	506.4	505.4	505.6	504.3
5°	477.5	476.9	474.7	473.1
7.5°	451.1	448.3	448.1	446.4
10°	426.3	423.8	422.5	422.7
12.5°	404.8	402.0	402.0	400.3
15°	381.7	379.0	379.4	379.2
17.5°	362.7	360.8	359.3	358.1
20°	344.1	341.8	340.9	339.9
22.5°	327.0	325.3	325.5	325.5
25°	310.7	310.9	309.0	308.6
27.5°	296.3	295.9	295.5	294.7
30°	282.8	281.1	280.7	279.9
32.5°	268.9	268.7	267.0	267.6
35°	254.7	254.1	253.6	253.2
37.5°	241.6	240.3	240.1	239.7
40°	228.3	227.9	226.0	227.0
42.5°	213.9	213.1	213.1	213.1
45°	201.9	199.5	199.5	198.7
47.5°	188.3	187.5	187.1	185.6
50°	175.0	173.7	173.3	173.3
52.5°	161.3	161.1	161.5	160.6
55°	149.2	149.4	149.2	148.8
57.5°	136.1	135.1	135.1	135.3
60°	120.5	120.5	120.9	120.1
62.5°	105.5	105.1	103.6	103.1
65°	90.0	88.4	88.1	88.4
67.5°	76.3	75.7	74.6	74.8
70°	64.5	64.3	63.2	62.6
72.5°	53.9	53.9	53.3	53.3
75°	45.0	44.6	44.4	44.8
77.5°	34.7	33.6	34.0	33.4
80°	25.2	25.6	25.2	24.9
82.5°	18.6	18.2	18.4	18.2
85°	11.8	11.4	11.6	11.4
87.5°	4.9	5.1	5.1	4.7
90°	0.0	0.0	0.0	0.0

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