

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: P243660

Luminaire Tested: **S125DR-H375D927-X4F0-XX-UDD-A-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P243660  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-61)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125DR-H375D927-X4F0-XX-UDD-A-W  
Description: DEFINE 5 DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER.  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: (184) 2700K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

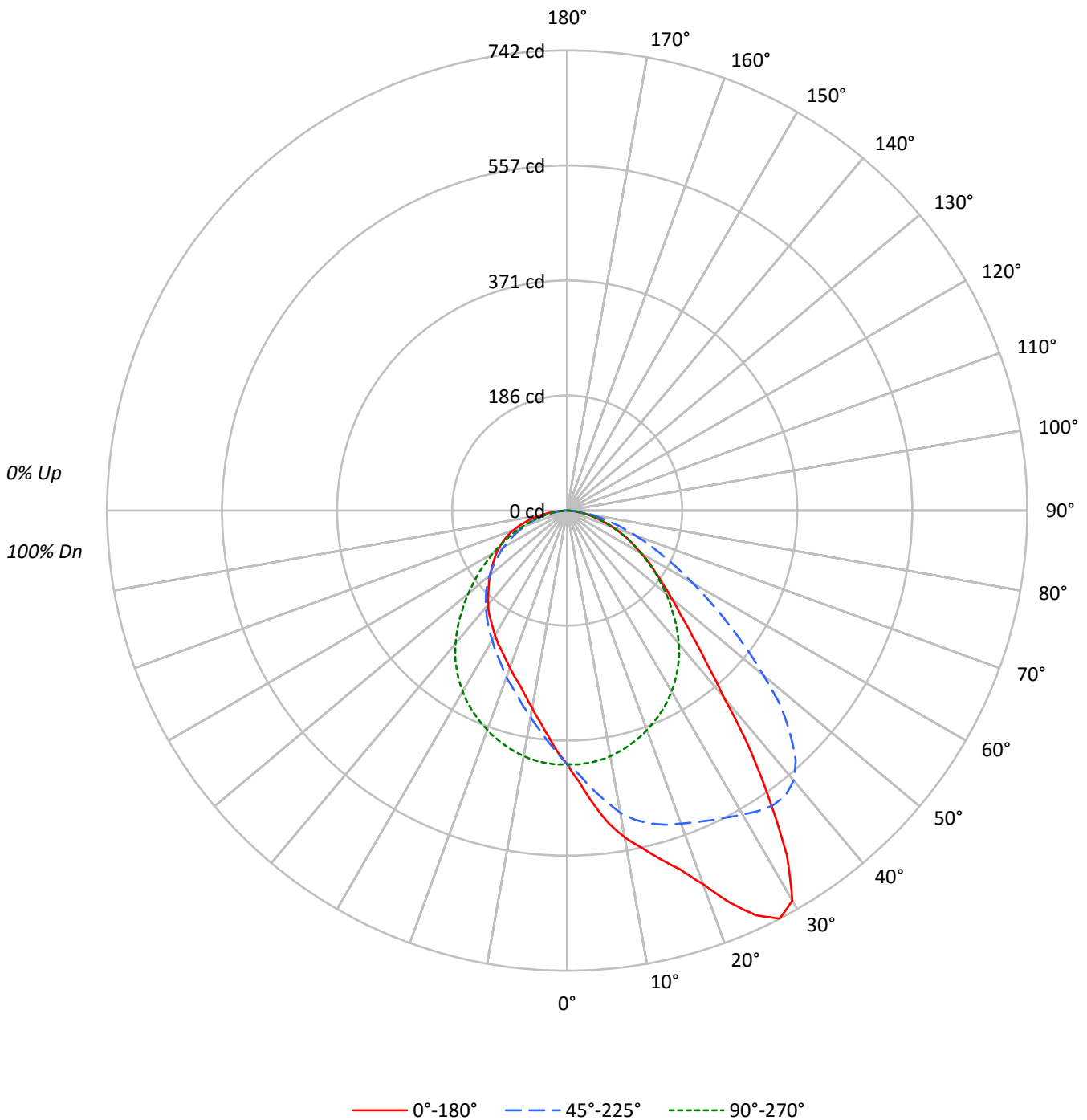
Lumens per Lamp: N/A  
Luminaire Lumens: 1165.3 lumens  
Efficiency: N/A  
Efficacy: 104.0 lumens/watt  
Spacing Criteria (0/90/45): 1.43 / 1.22 / 1.53  
Luminous Opening: Rectangular (W 3.88' x L: 0.39' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 11.2  
Input Voltage (V): 120  
Input Current (Ain): 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





TEST NUMBER: P243660

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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87	85
2	100	92	86	80	97	90	84	79	87	82	78	84	79	76	81	77	74	72
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	63	61
4	84	73	64	58	82	71	63	57	69	62	56	66	61	56	64	59	55	53
5	78	65	56	50	75	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	40
7	67	53	45	39	65	53	44	39	51	44	38	50	43	38	48	42	38	36
8	62	49	40	35	60	48	40	35	47	40	34	46	39	34	44	38	34	32
9	58	45	37	31	57	44	36	31	43	36	31	42	36	31	41	35	31	29
10	54	41	34	28	53	41	33	28	40	33	28	39	33	28	38	32	28	26

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	2906	2906	2906
5°	3376	2912	2588
10°	3863	2903	2336
15°	4282	2877	2152
20°	4848	2848	2041
25°	5646	2811	1956
30°	5960	2765	1908
35°	4929	2698	1867
40°	3646	2600	1840
45°	2867	2459	1800
50°	2427	2299	1793
55°	2161	2141	1799
60°	1962	1966	1838
65°	1818	1801	1890
70°	1633	1613	1901
75°	1392	1417	1876
80°	1142	1162	1752
85°	783	824	1484



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	39.5	3.4
10°-20°	118.0	10.1
20°-30°	191.9	16.5
30°-40°	233.5	20.0
40°-50°	213.6	18.3
50°-60°	171.0	14.7
60°-70°	119.1	10.2
70°-80°	63.3	5.4
80°-90°	15.5	1.3
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°	349.4	30.0
0°-40°	582.9	50.0
0°-60°	967.5	83.0
0°-90°	1165.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1165.3	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	409	409	409	409	409	
5°	473	449	408	371	363	47
15°	582	523	391	309	292	167
25°	720	551	358	262	249	329
35°	568	580	311	223	215	352
45°	285	508	245	184	179	225
55°	174	316	173	141	145	157
65°	108	168	107	94	112	106
75°	51	75	52	49	68	55
85°	10	14	10	11	18	12
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°	408.9	408.9	408.9	408.9	408.9	408.9	408.9	408.9	408.9	408.9	408.9
2.5°	437.7	435.9	435.4	435.6	434.6	433.8	431.8	429.1	427.3	425.0	424.3
5°	473.2	468.7	469.6	468.2	466.1	463.3	460.8	456.8	453.0	449.3	444.5
7.5°	508.0	507.2	504.9	504.6	501.1	496.3	491.3	485.8	477.7	472.1	465.6
10°	535.2	536.9	533.6	533.7	527.6	522.8	518.5	511.4	502.2	494.6	485.2
12.5°	557.1	557.8	557.3	555.1	551.2	543.0	538.9	531.4	521.5	511.0	503.7
15°	582.0	580.2	577.3	574.7	568.9	563.1	554.5	545.7	533.1	522.6	512.0
17.5°	606.9	606.5	603.0	597.4	590.1	582.5	569.6	558.3	544.8	531.1	517.8
20°	641.0	639.2	634.1	627.6	614.2	603.4	587.3	571.9	554.3	537.1	521.6
22.5°	683.8	677.8	672.7	662.7	647.3	628.6	610.5	588.1	563.6	543.4	524.1
25°	719.9	717.3	711.8	700.7	683.1	660.6	633.7	608.4	577.5	550.7	525.6
27.5°	741.8	740.7	737.4	726.9	712.3	689.9	661.2	628.9	593.9	557.6	527.6
30°	726.2	726.4	728.2	727.1	720.6	706.2	680.6	648.1	607.7	565.9	528.1
32.5°	659.3	663.7	678.0	684.8	693.9	696.9	685.5	658.4	619.3	574.2	529.8
35°	568.1	579.0	588.6	608.5	632.2	651.6	662.9	654.1	624.1	579.8	530.6
37.5°	482.2	481.3	496.3	517.8	543.0	576.0	608.0	625.6	615.8	578.7	529.1
40°	393.0	400.6	409.9	428.9	458.5	499.1	537.2	574.9	588.5	568.4	523.3
42.5°	332.0	335.4	344.7	359.6	380.9	422.3	460.0	508.4	543.2	545.5	510.5
45°	285.2	289.0	291.7	306.4	326.1	354.0	392.6	441.4	488.1	508.4	489.8
47.5°	247.7	249.9	255.7	264.6	277.6	302.3	333.1	377.4	428.3	467.6	461.3
50°	219.5	221.2	225.8	230.8	241.4	259.7	284.5	320.8	369.8	412.7	426.8
52.5°	194.7	196.8	199.1	203.9	213.7	226.0	246.2	274.6	320.0	364.0	386.3
55°	174.4	175.3	177.7	181.4	188.9	198.1	214.2	239.9	271.8	315.5	346.4
57.5°	156.9	156.0	158.7	161.2	166.1	173.9	185.5	204.6	235.0	272.3	304.4
60°	138.0	138.8	140.8	142.8	146.2	153.0	162.2	177.4	199.6	233.1	266.0
62.5°	121.7	122.4	122.9	125.7	128.8	133.6	141.1	153.5	171.9	199.6	229.0
65°	108.1	106.9	107.6	109.6	112.1	116.1	123.0	132.2	145.9	168.5	192.8
67.5°	92.2	92.5	92.7	93.8	96.0	99.8	104.8	112.3	123.5	141.3	162.7
70°	78.6	78.8	78.9	79.9	81.7	83.9	87.4	93.2	102.8	116.6	133.3
72.5°	64.7	65.3	65.3	66.2	67.5	68.6	72.0	76.8	84.1	95.0	109.1
75°	50.7	51.9	52.2	53.2	54.4	54.7	57.2	61.0	65.7	74.6	85.7
77.5°	39.5	39.5	40.1	41.3	41.3	42.3	44.9	46.6	50.2	56.4	64.8
80°	27.9	28.4	28.4	28.7	29.3	30.2	31.3	32.8	36.0	40.5	44.9
82.5°	18.2	18.4	18.6	19.4	19.1	19.9	20.4	22.2	23.7	25.9	28.7
85°	9.6	9.6	9.8	10.3	10.8	10.9	11.3	12.1	13.3	14.3	15.9
87.5°	4.0	3.8	3.8	4.1	4.1	4.3	4.5	4.8	5.5	5.5	6.1
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°	408.9	408.9	408.9	408.9	408.9	408.9	408.9	408.9	408.9	408.9	408.9
2.5°	423.8	422.5	420.2	418.2	415.7	413.9	412.0	409.7	407.4	404.9	402.3
5°	440.7	436.7	432.3	427.8	422.5	418.2	413.5	408.2	403.7	398.8	393.5
7.5°	460.1	453.2	445.4	436.6	428.3	420.8	413.2	405.9	399.3	391.8	384.5
10°	478.9	466.8	457.0	445.0	433.3	422.3	411.9	402.3	392.6	383.4	374.4
12.5°	491.6	477.9	465.6	451.8	438.1	424.3	410.5	397.3	385.8	374.6	365.1
15°	500.4	490.8	474.5	458.0	439.9	422.0	406.4	391.0	377.4	364.3	353.0
17.5°	505.9	493.4	477.5	460.1	440.2	421.5	402.8	384.3	368.8	354.7	341.9
20°	507.4	492.8	476.2	458.1	438.2	417.7	396.6	376.6	359.6	343.6	330.6
22.5°	505.9	489.0	471.2	453.7	432.8	411.9	389.8	367.9	348.5	332.0	318.4
25°	503.4	483.0	464.4	443.7	424.3	404.4	381.7	358.5	338.3	321.0	305.8
27.5°	500.2	476.9	454.0	433.6	412.5	393.0	372.1	348.4	327.3	308.4	294.1
30°	496.6	468.7	443.4	419.2	399.3	379.7	359.3	336.9	315.7	297.6	282.2
32.5°	492.5	460.1	430.3	404.2	383.0	364.9	345.9	324.5	303.6	284.2	270.8
35°	486.7	448.3	416.2	388.0	365.9	346.4	329.6	310.9	290.2	272.1	258.2
37.5°	479.9	437.9	401.9	371.4	347.4	327.3	311.9	296.6	277.2	259.8	246.4
40°	470.7	425.3	386.8	353.8	328.1	308.4	293.3	280.2	264.1	246.6	234.5
42.5°	458.8	411.4	369.8	334.6	309.7	288.7	274.6	262.6	248.9	233.6	221.7
45°	445.2	395.5	350.7	316.2	289.2	269.1	255.3	244.6	234.1	220.5	209.4
47.5°	424.0	376.7	333.4	295.3	268.8	249.4	236.4	226.2	218.4	207.6	196.7
50°	398.8	355.5	313.0	274.7	247.9	229.1	216.9	207.9	201.3	193.0	184.7
52.5°	371.1	331.6	290.7	254.8	228.0	210.2	197.3	189.4	185.0	178.4	171.9
55°	338.7	304.8	266.6	234.0	207.6	189.5	178.4	172.8	168.0	164.6	158.8
57.5°	306.3	277.6	243.6	211.2	187.0	170.9	161.0	154.7	151.2	148.9	144.8
60°	270.8	248.2	217.0	189.0	167.5	152.2	143.4	138.3	135.1	133.8	131.0
62.5°	236.9	219.7	191.3	168.0	148.7	135.3	126.5	122.4	120.4	118.9	117.2
65°	203.6	190.0	167.6	145.7	129.5	117.4	110.4	107.1	105.6	104.0	103.8
67.5°	173.6	161.2	143.3	125.4	111.8	101.5	95.3	92.0	90.4	90.5	89.7
70°	144.1	134.5	119.9	105.3	93.7	85.6	79.8	77.6	76.9	76.8	76.1
72.5°	116.6	111.1	98.3	86.1	76.9	70.6	66.0	64.2	63.3	63.0	63.0
75°	92.4	88.4	77.4	68.1	61.2	56.0	52.9	51.6	50.4	51.1	50.6
77.5°	69.3	66.0	58.5	51.9	46.6	42.3	40.8	39.6	39.0	38.8	39.5
80°	48.7	46.8	42.1	36.8	32.8	30.3	29.3	28.4	27.9	27.5	27.9
82.5°	31.3	30.2	26.9	23.7	21.4	20.1	19.1	18.6	17.7	17.9	18.2
85°	17.1	16.7	14.6	13.6	11.4	11.3	10.6	10.1	10.3	9.9	10.4
87.5°	7.0	6.6	6.1	5.6	5.0	4.5	4.1	4.5	4.0	4.5	4.3
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):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	408.9	408.9	408.9	408.9	408.9	408.9	408.9	408.9	408.9	408.9	408.9
2.5°	400.9	399.1	396.9	395.0	392.0	390.0	389.0	389.3	388.2	387.8	387.7
5°	390.3	386.2	382.2	378.9	375.4	371.4	368.6	367.8	367.4	366.6	364.8
7.5°	379.4	374.1	368.9	364.1	359.1	354.5	351.7	349.4	348.0	345.7	345.2
10°	367.8	361.3	355.8	348.9	342.9	338.1	334.4	332.4	331.3	329.1	327.3
12.5°	356.7	349.9	341.4	335.1	328.8	323.8	319.7	316.4	315.5	312.7	311.2
15°	344.7	336.4	328.8	321.5	315.5	309.2	306.7	303.8	300.8	298.3	297.8
17.5°	333.3	323.3	315.9	308.7	301.4	296.8	293.5	291.5	289.2	287.8	285.5
20°	319.5	311.4	303.1	296.5	290.2	286.2	281.7	279.9	278.2	275.1	274.1
22.5°	307.9	298.1	291.2	284.5	278.9	273.3	270.1	268.3	265.8	264.1	262.8
25°	295.8	287.7	278.9	272.3	267.5	261.8	259.7	257.3	255.2	253.7	252.4
27.5°	284.0	275.1	267.9	261.3	256.3	252.4	249.4	246.9	245.4	244.2	243.4
30°	271.8	263.5	256.8	250.7	245.1	241.8	238.9	237.9	236.3	235.4	234.1
32.5°	260.7	252.2	245.9	240.6	235.6	232.3	230.6	229.1	227.5	226.0	225.8
35°	248.1	240.8	235.0	229.1	225.5	222.8	221.0	219.5	218.2	217.0	216.4
37.5°	236.9	230.0	223.5	219.4	215.4	213.1	211.1	210.6	209.3	209.4	208.4
40°	225.0	218.7	213.2	209.1	206.4	203.9	202.6	201.0	200.1	200.3	199.5
42.5°	213.4	207.6	202.6	198.8	196.0	194.2	193.0	191.7	190.7	190.0	189.9
45°	201.6	196.5	192.3	188.5	186.2	184.5	183.1	181.4	180.6	180.2	180.1
47.5°	190.0	185.4	180.9	178.2	176.1	174.6	173.1	171.8	171.1	170.6	169.8
50°	178.1	173.4	170.3	167.0	165.1	163.2	161.5	160.8	160.0	159.8	160.7
52.5°	165.6	162.0	159.2	156.5	154.4	152.2	150.6	149.7	150.2	150.2	151.2
55°	153.9	150.1	147.4	145.2	142.9	140.9	139.3	139.3	139.3	140.3	141.6
57.5°	140.8	137.5	135.5	133.0	130.8	129.5	128.3	128.2	128.8	130.5	132.0
60°	127.5	125.2	123.0	121.0	118.9	117.9	117.7	117.4	118.4	120.0	123.2
62.5°	114.4	112.9	110.3	109.3	107.4	106.3	106.3	106.6	108.1	110.8	113.6
65°	101.8	99.7	97.7	96.7	95.5	94.5	94.5	95.8	98.0	100.5	104.0
67.5°	88.9	87.0	85.7	84.7	83.4	82.9	83.4	84.9	87.5	90.0	93.7
70°	74.9	74.6	73.5	72.1	71.5	71.5	72.0	73.6	75.6	79.4	82.6
72.5°	62.2	62.2	61.5	60.7	60.2	60.7	61.0	62.7	65.2	68.5	72.0
75°	50.6	50.1	49.6	49.2	49.1	49.4	49.9	51.2	54.2	57.4	60.2
77.5°	39.1	38.8	38.3	38.6	38.6	38.8	40.3	41.8	43.4	45.9	48.9
80°	28.2	28.4	27.9	27.7	28.5	28.9	30.0	31.2	32.3	35.2	37.3
82.5°	18.6	18.9	18.7	19.1	19.4	19.4	20.7	21.9	22.9	24.9	26.5
85°	10.6	10.8	10.8	11.3	11.6	11.4	12.6	13.3	13.8	15.3	16.2
87.5°	4.6	4.8	5.0	5.0	5.0	5.6	5.8	6.1	6.3	6.6	7.1
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°	408.9	408.9	408.9	408.9
2.5°	386.2	386.0	386.8	387.3
5°	363.6	363.1	362.5	362.8
7.5°	343.6	342.2	341.9	341.9
10°	325.8	324.5	324.2	323.7
12.5°	310.7	308.7	307.9	307.1
15°	296.5	296.1	294.3	292.5
17.5°	283.4	283.9	282.0	281.2
20°	272.4	270.9	270.3	269.9
22.5°	261.3	260.2	260.2	259.0
25°	251.4	250.4	250.5	249.4
27.5°	242.1	241.9	241.8	241.4
30°	233.5	232.8	232.1	232.5
32.5°	225.2	224.2	223.7	223.5
35°	216.5	216.2	215.6	215.2
37.5°	208.1	208.3	207.4	207.3
40°	199.0	198.8	198.6	198.3
42.5°	189.4	188.9	189.2	189.0
45°	179.7	179.2	179.6	179.1
47.5°	170.3	170.6	170.6	170.8
50°	161.0	161.7	161.7	162.2
52.5°	152.4	153.7	153.7	153.5
55°	143.1	144.6	145.1	145.2
57.5°	134.3	135.8	137.3	137.6
60°	124.9	127.5	129.0	129.3
62.5°	116.4	118.9	120.9	121.0
65°	106.9	109.9	111.8	112.4
67.5°	97.3	99.7	102.1	103.1
70°	86.4	89.2	90.9	91.5
72.5°	74.9	78.1	80.3	80.6
75°	64.0	66.3	68.0	68.3
77.5°	51.6	53.9	55.4	55.7
80°	39.1	41.1	42.1	42.8
82.5°	27.7	29.0	29.5	30.2
85°	17.1	18.1	18.2	18.2
87.5°	7.5	7.6	7.6	8.0
90°	0.0	0.0	0.0	0.0

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