

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: P243773

Luminaire Tested: **S125RDR-H375D835-X4F0-XX-UDD-A-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P243773  
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-H375D835-X4F0-XX-UDD-A-W  
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER.  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: (184) 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

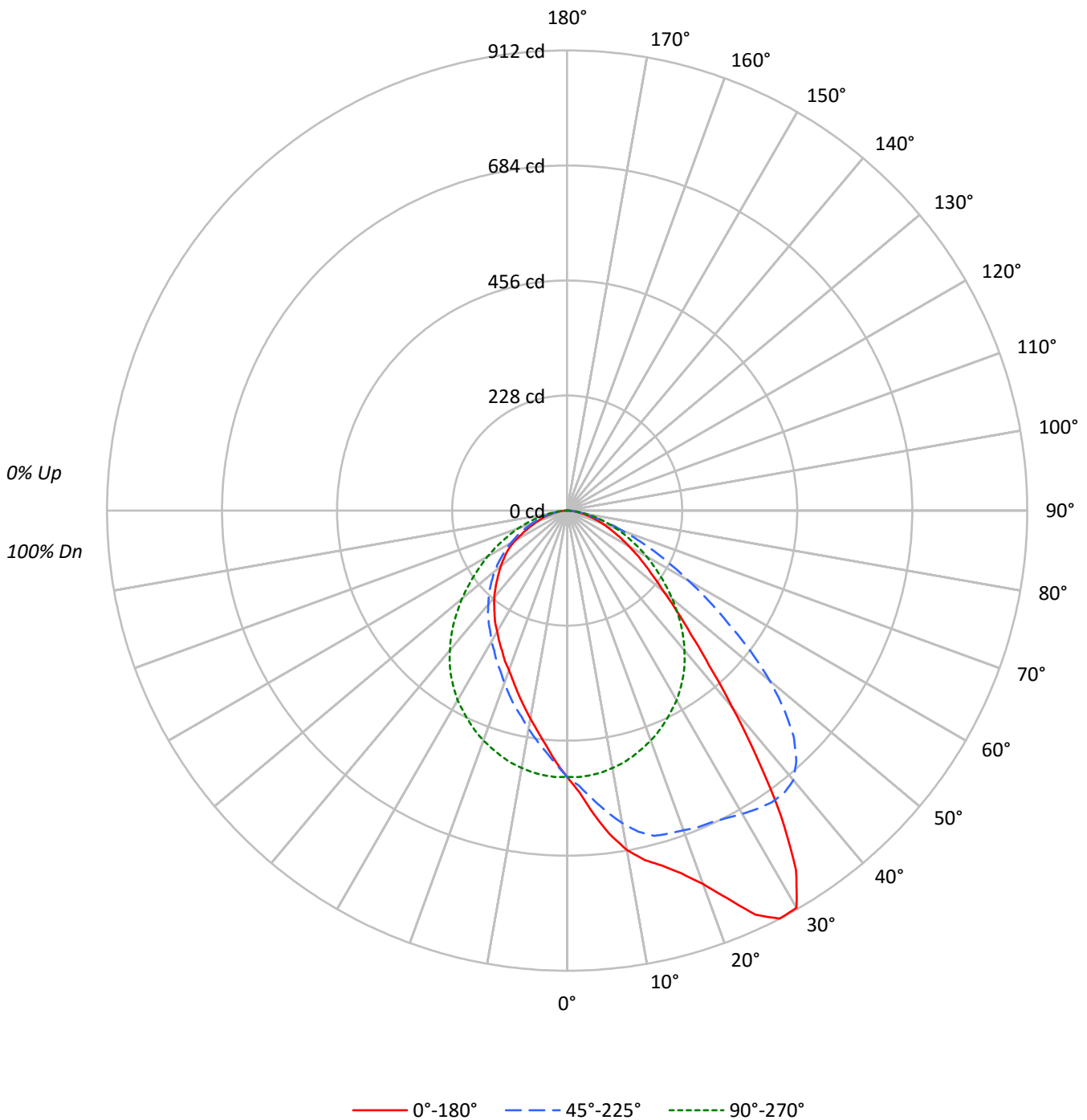
Lumens per Lamp: N/A  
Luminaire Lumens: 1404.9 lumens  
Efficiency: N/A  
Efficacy: 125.4 lumens/watt  
Spacing Criteria (0/90/45): 1.42 / 1.22 / 1.5  
Luminous Opening: Rectangular (W 3.88' x L: 0.39' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 11.2  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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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CATALOG NUMBER: S125RDR-H375D835-X4F0-XX-UDD-A-W

### 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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	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°	3752	3752	3752
5°	4306	3757	3342
10°	4928	3738	3021
15°	5360	3708	2763
20°	5955	3667	2546
25°	6930	3614	2397
30°	7462	3561	2274
35°	6411	3481	2176
40°	4722	3356	2086
45°	3488	3200	1977
50°	2763	3009	1897
55°	2335	2788	1826
60°	2011	2583	1690
65°	1746	2351	1472
70°	1532	2153	1288
75°	1299	1887	1219
80°	1011	1576	1011
85°	889	1264	921



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	50.8	3.6
10°-20°	150.3	10.7
20°-30°	239.8	17.1
30°-40°	291.1	20.7
40°-50°	262.3	18.7
50°-60°	201.7	14.4
60°-70°	130.9	9.3
70°-80°	63.0	4.5
80°-90°	14.9	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°	440.9	31.4
0°-40°	732.0	52.1
0°-60°	1196.1	85.1
0°-90°	1404.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1404.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	528	528	528	528	528	
5°	604	574	527	480	468	60
15°	728	668	504	401	376	209
25°	884	681	461	330	306	404
35°	739	706	401	271	251	452
45°	347	635	318	216	197	276
55°	188	390	225	158	147	171
65°	104	190	140	100	88	104
75°	47	64	69	49	44	51
85°	11	12	16	12	11	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°	527.9	527.9	527.9	527.9	527.9	527.9	527.9	527.9	527.9	527.9	527.9
2.5°	558.4	560.5	558.9	559.9	558.2	557.4	555.3	552.2	549.0	546.1	545.9
5°	603.6	603.2	601.6	599.2	597.6	593.4	591.3	584.2	579.4	573.5	570.6
7.5°	646.8	645.7	643.2	640.1	638.6	633.2	627.3	618.3	610.8	601.6	594.6
10°	682.8	682.6	680.7	678.6	672.9	666.9	661.2	651.8	640.5	629.0	619.3
12.5°	709.1	708.1	705.8	702.2	697.6	693.4	685.9	677.3	663.5	651.8	638.6
15°	728.4	728.0	724.6	723.4	714.4	708.5	698.5	689.9	679.2	667.5	653.2
17.5°	753.9	754.8	751.8	744.7	736.6	727.6	713.3	699.3	684.4	670.8	659.3
20°	787.4	785.3	780.3	771.7	757.1	746.0	731.7	714.4	694.3	674.2	657.6
22.5°	832.2	829.9	822.0	811.5	793.1	772.8	751.0	725.0	702.0	679.0	657.2
25°	883.7	879.3	867.6	856.3	830.1	808.6	776.1	745.1	711.6	681.1	656.6
27.5°	911.7	911.7	906.3	894.0	873.2	841.4	808.3	767.1	728.4	686.5	651.8
30°	909.2	907.8	909.9	904.6	891.2	867.4	834.5	791.2	741.8	693.9	652.2
32.5°	844.3	845.0	857.5	866.1	872.8	867.0	845.6	806.5	757.3	701.0	650.5
35°	738.9	740.5	762.7	777.4	807.3	824.5	829.5	808.3	764.2	706.0	647.6
37.5°	618.3	618.3	644.0	666.2	699.7	742.0	773.6	781.6	760.0	705.8	645.1
40°	509.0	508.4	528.7	555.9	591.7	638.4	685.5	725.9	731.1	697.6	636.3
42.5°	416.5	415.5	437.7	452.7	490.4	532.1	594.6	651.8	684.4	672.3	623.3
45°	347.0	346.2	360.6	377.8	404.4	447.7	500.2	563.7	618.5	635.2	599.0
47.5°	294.7	295.1	302.9	317.3	339.9	370.9	418.0	476.8	544.6	583.3	568.5
50°	249.9	251.4	257.2	268.1	284.7	309.6	350.0	403.1	472.8	524.1	527.2
52.5°	216.4	218.5	224.8	230.7	244.5	262.1	293.4	339.5	397.1	458.6	480.6
55°	188.4	189.4	193.0	199.3	209.5	224.2	247.0	282.1	335.5	390.4	429.1
57.5°	164.9	164.9	167.2	171.6	179.8	193.0	208.3	237.4	282.4	332.0	373.2
60°	141.5	142.3	144.0	148.8	154.3	164.3	179.2	197.6	236.5	278.0	322.3
62.5°	121.8	123.3	125.0	127.3	132.3	139.4	149.9	166.8	193.0	231.3	270.8
65°	103.8	105.3	105.5	108.2	111.6	117.4	125.4	137.7	159.5	189.6	222.3
67.5°	87.9	88.5	89.2	91.3	94.4	98.2	103.4	112.6	129.8	150.1	181.9
70°	73.7	74.1	74.3	76.6	78.1	81.4	84.1	90.0	100.9	116.6	141.3
72.5°	60.3	59.7	59.4	61.3	62.0	64.7	68.0	72.2	78.1	89.2	107.6
75°	47.3	47.5	47.7	48.8	49.0	50.2	52.3	55.0	57.8	64.3	76.0
77.5°	36.4	35.6	35.6	36.8	37.3	37.5	38.9	40.4	41.9	45.6	50.2
80°	24.7	25.1	25.1	25.1	25.3	25.7	26.6	27.8	28.9	31.2	32.0
82.5°	17.6	17.6	17.4	17.8	18.0	18.2	18.2	18.2	18.8	19.5	20.3
85°	10.9	11.1	10.5	10.9	11.1	11.1	11.1	11.1	11.7	11.5	11.7
87.5°	4.6	4.8	4.8	5.0	5.0	5.2	5.0	5.2	5.0	5.0	5.2
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°	527.9	527.9	527.9	527.9	527.9	527.9	527.9	527.9	527.9	527.9	527.9
2.5°	545.2	542.7	541.5	539.0	535.6	533.5	531.4	528.5	526.2	522.6	519.5
5°	565.3	560.3	555.7	549.4	543.4	538.1	532.7	526.6	521.2	515.1	508.6
7.5°	587.7	579.8	570.2	559.1	549.6	541.5	532.3	523.3	515.1	505.5	496.7
10°	609.3	596.5	583.8	568.9	555.1	542.9	530.6	518.0	507.4	495.4	484.5
12.5°	626.0	613.9	594.9	576.4	558.4	542.7	527.2	512.0	497.9	484.8	471.8
15°	640.7	620.6	604.5	584.4	562.4	541.1	521.8	504.0	487.1	471.6	458.4
17.5°	644.9	626.9	609.3	585.9	562.2	537.9	515.7	494.6	475.8	458.6	443.7
20°	644.5	626.2	607.2	584.8	559.7	533.1	508.4	484.8	463.4	443.7	427.8
22.5°	638.2	620.6	601.3	578.7	553.2	525.8	499.8	473.7	450.4	429.9	413.6
25°	631.5	609.3	589.2	566.4	542.1	516.8	489.2	460.9	436.6	415.3	396.8
27.5°	625.6	599.0	574.3	551.9	527.0	504.2	476.8	447.3	422.4	400.0	380.9
30°	616.2	588.2	558.2	533.7	509.7	485.8	460.7	433.9	406.7	383.9	364.8
32.5°	608.0	572.7	540.2	512.6	488.5	467.6	443.5	417.8	391.2	369.4	348.9
35°	599.0	556.8	522.9	490.4	466.3	443.5	424.5	401.2	374.9	351.8	333.4
37.5°	588.4	540.4	501.5	468.4	443.5	420.1	402.9	382.2	358.3	335.5	317.3
40°	576.4	523.7	478.9	444.8	418.0	394.5	380.1	361.7	341.4	318.8	301.8
42.5°	561.4	505.9	458.4	421.1	391.4	370.3	355.8	340.5	321.9	302.2	283.8
45°	542.3	483.7	433.9	394.5	365.2	344.7	329.7	318.4	303.5	285.1	267.7
47.5°	519.1	460.5	408.8	368.0	339.7	320.0	306.0	294.7	283.4	267.5	251.0
50°	488.3	433.9	384.3	342.6	312.7	293.7	281.1	272.1	261.8	248.9	233.8
52.5°	454.4	404.0	355.4	316.5	287.6	268.5	255.6	248.0	240.3	229.6	216.6
55°	415.1	374.0	327.8	289.7	261.4	242.6	232.3	225.0	218.5	210.4	199.5
57.5°	373.4	337.4	297.2	262.1	235.5	217.7	208.7	202.6	197.2	191.3	182.3
60°	329.7	304.1	266.0	233.8	210.6	195.9	187.3	181.7	176.7	171.8	165.1
62.5°	284.0	262.9	234.4	207.0	186.3	172.5	166.2	161.4	156.1	152.0	147.1
65°	237.8	225.6	206.0	180.2	161.2	149.9	143.8	139.8	137.3	132.5	128.7
67.5°	195.7	189.0	172.3	154.9	140.2	130.0	124.3	121.4	118.7	116.4	112.2
70°	155.7	150.9	141.3	128.9	117.4	108.6	104.4	103.6	99.8	97.5	95.4
72.5°	118.7	117.4	109.5	104.0	97.5	90.6	87.5	85.8	83.3	81.2	80.4
75°	84.4	86.2	83.7	81.0	77.9	72.2	69.5	68.7	66.4	65.7	64.7
77.5°	57.6	60.3	61.1	59.9	58.4	56.5	54.6	53.8	51.5	51.1	50.4
80°	36.2	40.2	41.7	41.4	40.8	41.0	38.7	38.5	37.5	36.8	37.5
82.5°	22.0	24.1	26.8	27.4	26.6	27.0	26.4	25.5	25.5	26.0	25.1
85°	11.9	12.1	13.4	14.2	15.3	16.1	15.3	15.5	15.3	15.3	14.7
87.5°	5.2	5.4	5.4	5.2	5.7	6.1	6.9	7.3	7.1	6.5	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°	527.9	527.9	527.9	527.9	527.9	527.9	527.9	527.9	527.9	527.9	527.9
2.5°	517.0	515.5	513.0	510.9	506.1	502.8	502.3	502.5	502.1	501.7	501.5
5°	504.4	499.6	495.0	491.0	485.6	480.2	477.6	476.6	476.2	473.9	475.1
7.5°	491.0	483.7	478.3	470.7	464.2	459.6	455.2	453.2	452.7	449.6	448.8
10°	476.8	468.0	459.8	452.3	445.8	439.3	434.1	432.2	429.7	427.2	423.4
12.5°	462.8	451.9	442.9	434.5	425.7	418.4	414.2	411.5	408.4	406.1	404.8
15°	446.0	436.8	425.7	416.7	407.7	401.2	395.6	390.6	387.6	385.8	380.5
17.5°	431.0	418.8	408.4	399.8	389.9	382.6	376.8	372.6	367.5	363.8	360.4
20°	414.8	402.3	392.7	382.4	372.4	363.4	356.0	352.7	349.1	345.6	343.7
22.5°	397.5	386.6	375.7	365.0	354.4	344.7	340.1	335.3	332.2	328.6	326.1
25°	382.4	370.5	359.6	347.7	335.9	330.3	324.0	319.2	316.7	313.1	310.4
27.5°	366.3	354.8	341.8	329.5	322.5	312.9	308.7	305.0	301.6	298.1	296.2
30°	351.2	337.8	324.8	315.2	306.2	299.3	295.3	290.7	286.1	284.4	281.9
32.5°	335.3	320.9	309.6	299.9	292.4	284.0	280.3	276.5	272.1	270.0	267.7
35°	318.8	304.8	293.7	284.9	277.1	270.8	266.7	262.7	260.0	256.8	255.1
37.5°	301.4	289.3	278.6	269.8	262.7	257.7	252.4	249.3	245.5	242.6	241.3
40°	284.9	274.0	263.7	255.6	249.1	243.0	238.4	234.4	232.1	229.6	227.5
42.5°	270.0	258.7	249.9	241.3	235.5	229.6	225.0	222.1	218.1	217.1	214.1
45°	254.1	243.6	234.8	226.9	220.8	216.0	210.6	207.0	204.5	202.0	200.9
47.5°	238.0	228.4	220.2	212.9	206.6	201.1	197.0	193.2	190.5	188.2	186.9
50°	222.3	213.9	205.7	198.6	192.1	188.2	183.1	179.0	176.9	174.4	172.9
52.5°	205.7	198.8	190.1	184.0	177.9	172.7	167.7	164.9	162.8	160.7	159.7
55°	190.3	182.9	175.4	168.9	163.1	157.6	153.6	151.5	148.8	147.6	147.4
57.5°	174.4	166.8	160.5	154.7	148.0	143.8	140.2	137.7	135.4	134.4	134.4
60°	157.0	150.9	145.1	138.6	133.7	128.9	125.2	123.5	121.2	120.8	119.3
62.5°	141.1	135.4	129.8	123.7	119.3	114.5	111.8	109.5	108.2	106.5	104.9
65°	124.5	119.5	114.1	108.8	105.3	100.0	97.5	94.8	93.4	91.5	89.4
67.5°	108.6	103.8	98.8	94.0	91.0	86.0	84.4	81.0	80.0	77.9	76.0
70°	91.9	88.5	84.6	79.7	77.2	73.3	71.6	68.4	66.8	65.5	64.5
72.5°	77.4	74.3	69.7	66.6	63.4	60.9	58.2	56.7	55.3	54.2	54.0
75°	63.2	59.2	56.5	53.6	51.5	49.0	47.7	46.7	46.0	45.4	44.8
77.5°	48.4	46.7	44.0	41.0	39.3	38.3	37.5	37.0	36.4	36.2	35.6
80°	36.0	33.7	32.0	31.0	29.7	28.9	28.3	26.8	26.0	25.5	25.1
82.5°	23.9	23.2	22.0	20.9	19.9	19.7	19.0	18.6	18.4	18.4	18.2
85°	14.4	12.8	12.8	12.6	12.6	12.3	11.9	11.9	11.5	12.1	12.1
87.5°	5.9	5.9	5.4	5.4	5.7	5.2	5.0	5.0	5.0	4.8	5.0
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°	527.9	527.9	527.9	527.9
2.5°	501.5	500.5	500.7	499.4
5°	472.8	472.2	470.1	468.4
7.5°	446.7	443.9	443.7	442.1
10°	422.2	419.7	418.4	418.6
12.5°	400.8	398.1	398.1	396.4
15°	378.0	375.3	375.7	375.5
17.5°	359.2	357.3	355.8	354.6
20°	340.8	338.5	337.6	336.6
22.5°	323.8	322.1	322.3	322.3
25°	307.7	307.9	306.0	305.6
27.5°	293.4	293.0	292.6	291.8
30°	280.1	278.4	278.0	277.1
32.5°	266.2	266.0	264.4	265.0
35°	252.2	251.6	251.2	250.8
37.5°	239.2	238.0	237.8	237.4
40°	226.1	225.6	223.8	224.8
42.5°	211.8	211.0	211.0	211.0
45°	199.9	197.6	197.6	196.7
47.5°	186.5	185.7	185.2	183.8
50°	173.3	172.1	171.6	171.6
52.5°	159.7	159.5	159.9	159.1
55°	147.8	148.0	147.8	147.4
57.5°	134.8	133.7	133.7	134.0
60°	119.3	119.3	119.7	118.9
62.5°	104.4	104.0	102.6	102.1
65°	89.2	87.5	87.3	87.5
67.5°	75.6	74.9	73.9	74.1
70°	63.8	63.6	62.6	62.0
72.5°	53.4	53.4	52.7	52.7
75°	44.6	44.2	44.0	44.4
77.5°	34.3	33.3	33.7	33.1
80°	24.9	25.3	24.9	24.7
82.5°	18.4	18.0	18.2	18.0
85°	11.7	11.3	11.5	11.3
87.5°	4.8	5.0	5.0	4.6
90°	0.0	0.0	0.0	0.0

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