

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: P243768

Luminaire Tested: **S125RDR-H375D830-X4F0-XX-UDD-A-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243768
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-H375D830-X4F0-XX-UDD-A-W
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1324.1 lumens
Efficiency: N/A
Efficacy: 118.2 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

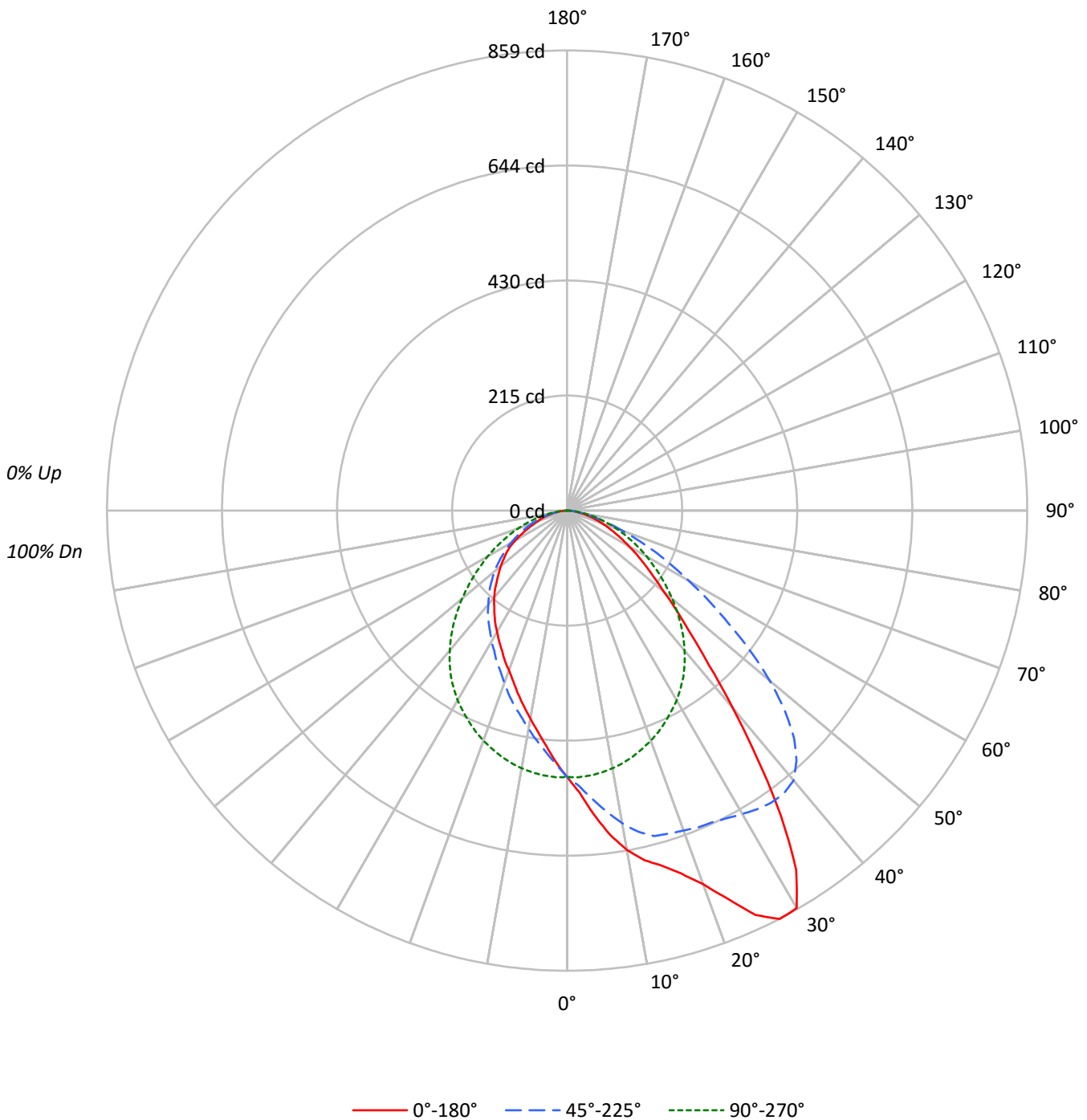
Input Watts (W): 11.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	3536	3536	3536
5°	4060	3542	3150
10°	4644	3524	2848
15°	5051	3496	2604
20°	5614	3456	2399
25°	6532	3407	2259
30°	7033	3357	2144
35°	6042	3281	2050
40°	4452	3163	1966
45°	3288	3016	1864
50°	2605	2836	1789
55°	2201	2628	1721
60°	1896	2434	1593
65°	1646	2217	1387
70°	1442	2030	1214
75°	1225	1777	1148
80°	954	1486	954
85°	840	1191	873



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.9	3.6
10°-20°	141.7	10.7
20°-30°	226.0	17.1
30°-40°	274.4	20.7
40°-50°	247.3	18.7
50°-60°	190.1	14.4
60°-70°	123.4	9.3
70°-80°	59.4	4.5
80°-90°	14.0	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°	415.6	31.4
0°-40°	690.0	52.1
0°-60°	1127.3	85.1
0°-90°	1324.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1324.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	498	498	498	498	498	
5°	569	541	496	453	442	57
15°	686	629	475	378	354	197
25°	833	642	434	311	288	381
35°	696	665	378	255	236	426
45°	327	599	300	204	185	260
55°	178	368	212	149	139	161
65°	98	179	132	94	82	98
75°	45	61	65	46	42	48
85°	10	11	15	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°	497.5	497.5	497.5	497.5	497.5	497.5	497.5	497.5	497.5	497.5	497.5
2.5°	526.3	528.3	526.7	527.7	526.1	525.4	523.4	520.4	517.5	514.7	514.5
5°	569.0	568.6	567.0	564.8	563.2	559.3	557.3	550.6	546.1	540.6	537.8
7.5°	609.6	608.6	606.2	603.3	601.9	596.8	591.3	582.8	575.7	567.0	560.5
10°	643.5	643.3	641.6	639.6	634.3	628.5	623.2	614.3	603.7	592.8	583.8
12.5°	668.4	667.4	665.2	661.9	657.5	653.6	646.5	638.4	625.4	614.3	601.9
15°	686.5	686.1	683.0	681.8	673.3	667.8	658.3	650.2	640.2	629.1	615.7
17.5°	710.6	711.4	708.6	701.9	694.2	685.8	672.3	659.1	645.1	632.3	621.4
20°	742.2	740.2	735.5	727.4	713.6	703.1	689.7	673.3	654.4	635.4	619.9
22.5°	784.4	782.2	774.7	764.9	747.5	728.4	707.8	683.4	661.7	640.0	619.5
25°	832.9	828.8	817.7	807.1	782.4	762.1	731.5	702.3	670.8	642.0	618.9
27.5°	859.4	859.4	854.2	842.6	823.1	793.1	761.9	723.0	686.5	647.1	614.3
30°	857.0	855.6	857.6	852.7	840.0	817.5	786.6	745.7	699.2	654.0	614.7
32.5°	795.8	796.4	808.3	816.4	822.7	817.1	797.0	760.1	713.8	660.7	613.2
35°	696.4	698.0	718.9	732.7	760.9	777.1	781.8	761.9	720.3	665.4	610.4
37.5°	582.8	582.8	607.0	627.9	659.5	699.4	729.2	736.6	716.3	665.2	608.0
40°	479.8	479.2	498.3	524.0	557.7	601.7	646.1	684.2	689.1	657.5	599.7
42.5°	392.6	391.6	412.5	426.7	462.2	501.5	560.5	614.3	645.1	633.7	587.5
45°	327.1	326.3	339.9	356.1	381.1	422.0	471.5	531.3	583.0	598.7	564.6
47.5°	277.8	278.2	285.5	299.1	320.4	349.6	394.0	449.4	513.3	549.8	535.8
50°	235.6	236.9	242.5	252.7	268.3	291.8	329.9	380.0	445.7	494.0	497.0
52.5°	204.0	206.0	211.9	217.4	230.4	247.0	276.6	320.0	374.2	432.2	453.0
55°	177.6	178.5	181.9	187.8	197.5	211.3	232.8	265.9	316.2	367.9	404.4
57.5°	155.5	155.5	157.6	161.8	169.5	181.9	196.3	223.7	266.1	312.9	351.8
60°	133.4	134.2	135.7	140.3	145.4	154.9	168.9	186.2	222.9	262.0	303.8
62.5°	114.8	116.2	117.8	119.9	124.7	131.4	141.3	157.2	181.9	218.0	255.3
65°	97.9	99.2	99.4	102.0	105.2	110.7	118.2	129.8	150.3	178.7	209.5
67.5°	82.9	83.5	84.0	86.0	89.0	92.5	97.5	106.1	122.3	141.5	171.4
70°	69.4	69.8	70.0	72.2	73.6	76.7	79.3	84.8	95.1	109.9	133.2
72.5°	56.8	56.2	56.0	57.8	58.4	61.0	64.1	68.1	73.6	84.0	101.4
75°	44.6	44.8	45.0	46.0	46.2	47.3	49.3	51.9	54.4	60.6	71.6
77.5°	34.3	33.5	33.5	34.7	35.1	35.3	36.7	38.1	39.5	43.0	47.3
80°	23.3	23.7	23.7	23.7	23.9	24.3	25.1	26.2	27.2	29.4	30.2
82.5°	16.6	16.6	16.4	16.8	17.0	17.2	17.2	17.2	17.8	18.3	19.1
85°	10.3	10.5	9.9	10.3	10.5	10.5	10.5	10.5	11.0	10.9	11.0
87.5°	4.3	4.5	4.5	4.7	4.7	4.9	4.7	4.9	4.7	4.7	4.9
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°	497.5	497.5	497.5	497.5	497.5	497.5	497.5	497.5	497.5	497.5	497.5
2.5°	513.9	511.6	510.4	508.0	504.8	502.9	500.9	498.1	496.0	492.6	489.7
5°	532.9	528.1	523.8	517.9	512.1	507.2	502.1	496.4	491.2	485.5	479.4
7.5°	554.0	546.5	537.4	526.9	518.1	510.4	501.7	493.2	485.5	476.4	468.1
10°	574.3	562.3	550.2	536.2	523.2	511.7	500.1	488.3	478.2	467.0	456.7
12.5°	590.1	578.6	560.7	543.3	526.3	511.6	497.0	482.6	469.3	456.9	444.7
15°	603.9	584.9	569.7	550.8	530.1	510.0	491.8	475.1	459.1	444.5	432.0
17.5°	607.8	590.9	574.3	552.2	529.9	507.0	486.1	466.2	448.4	432.2	418.2
20°	607.4	590.3	572.3	551.2	527.5	502.5	479.2	456.9	436.8	418.2	403.2
22.5°	601.5	584.9	566.8	545.5	521.4	495.6	471.1	446.4	424.5	405.2	389.8
25°	595.2	574.3	555.3	533.8	511.0	487.1	461.0	434.4	411.5	391.4	374.0
27.5°	589.7	564.6	541.3	520.2	496.8	475.3	449.4	421.6	398.1	377.0	359.1
30°	580.8	554.4	526.1	503.1	480.4	457.9	434.2	409.0	383.3	361.8	343.9
32.5°	573.1	539.8	509.2	483.1	460.5	440.7	418.0	393.8	368.7	348.2	328.9
35°	564.6	524.8	492.8	462.2	439.5	418.0	400.1	378.2	353.3	331.6	314.3
37.5°	554.6	509.4	472.7	441.5	418.0	395.9	379.8	360.2	337.7	316.2	299.1
40°	543.3	493.6	451.4	419.2	394.0	371.9	358.3	340.9	321.8	300.5	284.5
42.5°	529.1	476.8	432.0	396.9	368.9	349.0	335.4	321.0	303.4	284.9	267.5
45°	511.2	455.9	409.0	371.9	344.3	324.9	310.7	300.1	286.1	268.7	252.3
47.5°	489.3	434.0	385.3	346.8	320.2	301.6	288.4	277.8	267.1	252.1	236.5
50°	460.3	409.0	362.2	322.9	294.7	276.8	264.9	256.5	246.8	234.6	220.4
52.5°	428.3	380.8	335.0	298.3	271.1	253.1	240.9	233.8	226.5	216.4	204.2
55°	391.2	352.5	308.9	273.0	246.4	228.6	219.0	212.1	206.0	198.3	188.0
57.5°	352.0	318.0	280.1	247.0	221.9	205.2	196.7	191.0	185.8	180.3	171.8
60°	310.7	286.7	250.7	220.4	198.5	184.7	176.6	171.2	166.5	162.0	155.7
62.5°	267.7	247.8	221.0	195.1	175.6	162.6	156.6	152.1	147.2	143.2	138.7
65°	224.1	212.7	194.1	169.9	151.9	141.3	135.5	131.8	129.4	124.9	121.3
67.5°	184.5	178.1	162.4	146.0	132.2	122.5	117.2	114.4	111.9	109.7	105.7
70°	146.8	142.2	133.2	121.5	110.7	102.4	98.4	97.7	94.1	91.9	90.0
72.5°	111.9	110.7	103.2	98.0	91.9	85.4	82.5	80.9	78.5	76.5	75.8
75°	79.5	81.3	78.9	76.3	73.4	68.1	65.5	64.7	62.5	61.9	61.0
77.5°	54.3	56.8	57.6	56.4	55.0	53.3	51.5	50.7	48.5	48.1	47.5
80°	34.1	37.9	39.3	39.1	38.5	38.7	36.5	36.3	35.3	34.7	35.3
82.5°	20.7	22.7	25.3	25.8	25.1	25.4	24.9	24.1	24.1	24.5	23.7
85°	11.2	11.4	12.6	13.4	14.4	15.2	14.4	14.6	14.4	14.4	13.8
87.5°	4.9	5.1	5.1	4.9	5.3	5.7	6.5	6.9	6.7	6.1	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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	497.5	497.5	497.5	497.5	497.5	497.5	497.5	497.5	497.5	497.5	497.5
2.5°	487.3	485.9	483.5	481.6	477.0	473.9	473.5	473.7	473.3	472.9	472.7
5°	475.4	470.9	466.6	462.8	457.7	452.6	450.2	449.2	448.8	446.6	447.8
7.5°	462.8	455.9	450.8	443.7	437.6	433.2	429.1	427.1	426.7	423.8	423.0
10°	449.4	441.1	433.4	426.3	420.2	414.1	409.2	407.4	405.0	402.7	399.1
12.5°	436.2	425.9	417.4	409.6	401.3	394.4	390.4	387.9	384.9	382.7	381.5
15°	420.4	411.7	401.3	392.8	384.3	378.2	372.9	368.1	365.4	363.6	358.7
17.5°	406.2	394.8	384.9	376.8	367.5	360.6	355.1	351.2	346.4	342.9	339.7
20°	391.0	379.2	370.1	360.4	351.0	342.5	335.6	332.4	329.1	325.7	323.9
22.5°	374.6	364.4	354.1	344.1	334.0	324.9	320.6	316.0	313.1	309.7	307.4
25°	360.4	349.2	338.9	327.7	316.6	311.3	305.4	300.9	298.5	295.1	292.6
27.5°	345.2	334.4	322.2	310.5	304.0	294.9	291.0	287.4	284.3	280.9	279.2
30°	331.0	318.4	306.2	297.1	288.6	282.1	278.4	274.0	269.7	268.1	265.7
32.5°	316.0	302.4	291.8	282.7	275.6	267.7	264.2	260.6	256.5	254.5	252.3
35°	300.5	287.2	276.8	268.5	261.2	255.3	251.3	247.6	245.0	242.1	240.5
37.5°	284.1	272.6	262.6	254.3	247.6	242.9	237.9	235.0	231.4	228.6	227.5
40°	268.5	258.2	248.6	240.9	234.8	229.0	224.7	221.0	218.8	216.4	214.4
42.5°	254.5	243.8	235.6	227.5	221.9	216.4	212.1	209.3	205.6	204.6	201.8
45°	239.5	229.6	221.3	213.9	208.1	203.6	198.5	195.1	192.7	190.4	189.4
47.5°	224.3	215.2	207.5	200.6	194.7	189.6	185.6	182.1	179.5	177.4	176.2
50°	209.5	201.6	193.9	187.2	181.1	177.4	172.6	168.7	166.7	164.3	163.0
52.5°	193.9	187.4	179.1	173.4	167.7	162.8	158.0	155.5	153.5	151.5	150.5
55°	179.3	172.4	165.3	159.2	153.7	148.6	144.8	142.8	140.3	139.1	138.9
57.5°	164.3	157.2	151.3	145.8	139.5	135.5	132.2	129.8	127.6	126.7	126.7
60°	148.0	142.2	136.7	130.6	126.1	121.5	118.0	116.4	114.2	113.8	112.5
62.5°	133.0	127.6	122.3	116.6	112.5	107.9	105.3	103.2	102.0	100.4	98.8
65°	117.4	112.6	107.5	102.6	99.2	94.3	91.9	89.4	88.0	86.2	84.2
67.5°	102.4	97.9	93.1	88.6	85.8	81.1	79.5	76.3	75.4	73.4	71.6
70°	86.6	83.5	79.7	75.2	72.8	69.0	67.5	64.5	62.9	61.7	60.8
72.5°	73.0	70.0	65.7	62.7	59.8	57.4	54.8	53.5	52.1	51.1	50.9
75°	59.6	55.8	53.3	50.5	48.5	46.2	45.0	44.0	43.4	42.8	42.2
77.5°	45.6	44.0	41.4	38.7	37.1	36.1	35.3	34.9	34.3	34.1	33.5
80°	33.9	31.8	30.2	29.2	28.0	27.2	26.6	25.3	24.5	24.1	23.7
82.5°	22.5	21.9	20.7	19.7	18.7	18.5	18.0	17.6	17.4	17.4	17.2
85°	13.6	12.0	12.0	11.8	11.8	11.6	11.2	11.2	10.9	11.4	11.4
87.5°	5.5	5.5	5.1	5.1	5.3	4.9	4.7	4.7	4.7	4.5	4.7
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):

	165°	170°	175°	180°
0°	497.5	497.5	497.5	497.5
2.5°	472.7	471.7	471.9	470.7
5°	445.7	445.1	443.1	441.5
7.5°	421.0	418.4	418.2	416.7
10°	397.9	395.5	394.4	394.6
12.5°	377.8	375.2	375.2	373.7
15°	356.3	353.7	354.1	353.9
17.5°	338.5	336.8	335.4	334.2
20°	321.2	319.0	318.2	317.2
22.5°	305.2	303.6	303.8	303.8
25°	290.0	290.2	288.4	288.0
27.5°	276.6	276.2	275.8	275.0
30°	264.0	262.4	262.0	261.2
32.5°	250.9	250.7	249.2	249.8
35°	237.7	237.1	236.7	236.3
37.5°	225.5	224.3	224.1	223.7
40°	213.1	212.7	210.9	211.9
42.5°	199.6	198.9	198.9	198.9
45°	188.4	186.2	186.2	185.4
47.5°	175.8	175.0	174.6	173.2
50°	163.3	162.2	161.8	161.8
52.5°	150.5	150.3	150.7	149.9
55°	139.3	139.5	139.3	138.9
57.5°	127.0	126.1	126.1	126.3
60°	112.5	112.5	112.8	112.1
62.5°	98.4	98.0	96.7	96.3
65°	84.0	82.5	82.3	82.5
67.5°	71.2	70.6	69.6	69.8
70°	60.2	60.0	59.0	58.4
72.5°	50.3	50.3	49.7	49.7
75°	42.0	41.6	41.4	41.8
77.5°	32.4	31.4	31.8	31.2
80°	23.5	23.9	23.5	23.3
82.5°	17.4	17.0	17.2	17.0
85°	11.0	10.7	10.9	10.7
87.5°	4.5	4.7	4.7	4.3
90°	0.0	0.0	0.0	0.0

(END OF REPORT)