

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: P242913

Luminaire Tested: **S125RDR-S375D835-X4F0-XX-UDD-A-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242913  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-32)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125RDR-S375D835-X4F0-XX-UDD-A-W  
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1377.8 lumens  
Efficiency: N/A  
Efficacy: 118.8 lumens/watt  
Spacing Criteria (0/90/45): 1.4 / 1.21 / 1.48  
Luminous Opening: Rectangular (W 3.88' x L: 0.39' x H: 0')  
CIE Type: Direct

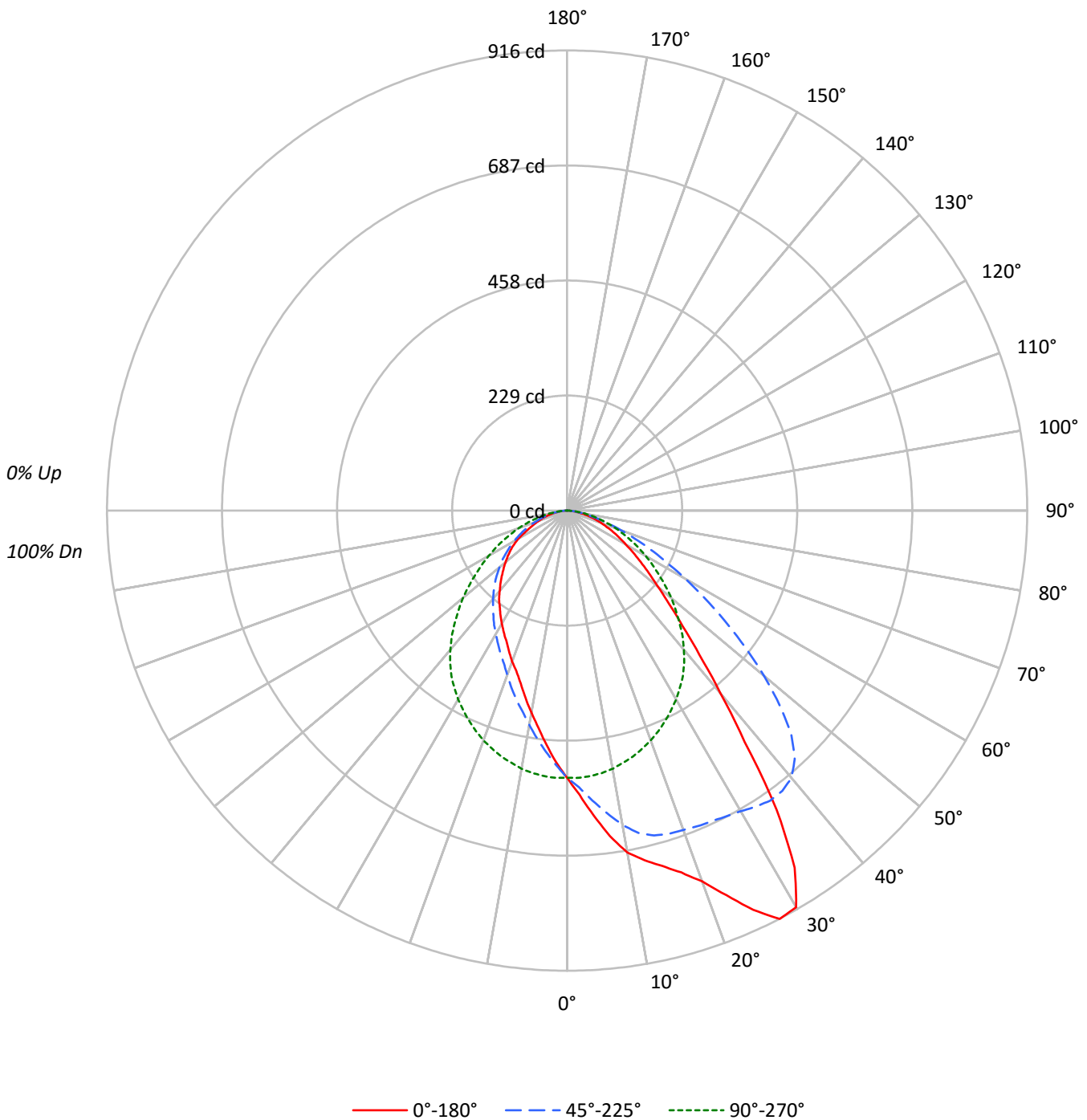
Input Watts (W): 11.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### 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	69	78	72	67	76	70	66	73	69	65					63				
4	85	74	66	59	83	73	65	59	70	63	58	68	62	57	66	61	57					55				
5	79	66	58	52	77	65	57	51	63	56	51	61	55	50	60	54	50					48				
6	73	60	52	45	71	59	51	45	57	50	45	56	49	44	54	49	44					42				
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	50	44	39					37				
8	63	50	42	36	61	49	42	36	48	41	36	47	40	36	46	40	35					34				
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32					30				
10	55	42	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29					28				

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

	0°	90°	180°
0°	3780	3780	3780
5°	4348	3785	3343
10°	4988	3765	2950
15°	5388	3727	2622
20°	5940	3682	2420
25°	6875	3622	2246
30°	7481	3560	2132
35°	6311	3487	2027
40°	4407	3356	1936
45°	3270	3179	1847
50°	2607	2995	1771
55°	2213	2767	1704
60°	1912	2563	1595
65°	1704	2343	1372
70°	1496	2147	1253
75°	1296	1859	1175
80°	982	1564	982
85°	815	1231	930



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	51.0	3.7
10°-20°	149.5	10.9
20°-30°	237.0	17.2
30°-40°	286.4	20.8
40°-50°	255.1	18.5
50°-60°	195.6	14.2
60°-70°	127.0	9.2
70°-80°	61.6	4.5
80°-90°	14.5	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°	437.5	31.8
0°-40°	724.0	52.5
0°-60°	1174.7	85.3
0°-90°	1377.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1377.8	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	532	532	532	532	532	
5°	610	579	530	482	468	61
15°	732	670	506	390	356	210
25°	877	682	462	314	286	404
35°	727	705	402	256	234	441
45°	325	631	316	203	184	258
55°	179	383	223	149	138	162
65°	101	182	139	95	82	101
75°	47	64	68	47	43	50
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°	531.8	531.8	531.8	531.8	531.8	531.8	531.8	531.8	531.8	531.8	531.8
2.5°	566.3	565.8	566.7	564.3	564.5	560.8	560.8	558.0	554.3	551.4	550.1
5°	609.5	609.9	609.1	605.8	603.6	600.3	596.6	590.1	584.6	579.4	575.2
7.5°	653.6	654.0	651.2	650.5	644.9	641.4	633.1	624.6	617.1	607.3	600.3
10°	691.1	690.9	687.9	685.5	680.7	674.5	666.5	656.0	646.2	635.2	624.8
12.5°	713.0	712.3	711.9	708.8	704.4	699.2	692.7	682.4	669.7	657.5	644.9
15°	732.2	730.6	727.8	724.1	717.8	711.4	703.8	694.6	683.1	669.5	658.2
17.5°	755.3	755.5	751.2	747.2	738.9	728.5	717.1	703.1	688.3	674.5	663.2
20°	785.4	784.8	780.4	770.4	760.6	746.6	733.0	714.9	695.7	676.3	661.2
22.5°	828.7	826.7	822.1	808.1	791.6	772.6	750.1	726.9	702.7	680.0	659.0
25°	876.7	875.4	866.4	851.1	829.8	802.0	775.0	744.6	711.2	682.2	658.2
27.5°	916.4	913.8	905.7	891.3	870.4	840.4	803.1	763.8	724.1	685.9	652.9
30°	911.6	914.9	914.0	908.1	893.3	867.1	833.2	787.6	738.1	691.1	649.9
32.5°	843.1	845.9	855.7	871.7	876.5	869.9	846.8	805.5	753.8	698.8	647.5
35°	727.4	731.3	746.1	769.5	800.1	825.6	830.8	808.1	762.1	704.7	645.1
37.5°	580.2	605.8	615.8	639.6	687.6	734.1	774.5	783.7	758.8	703.4	642.2
40°	475.0	480.3	502.5	530.2	569.1	618.0	682.4	728.9	730.4	694.6	633.1
42.5°	389.4	396.4	410.0	430.7	462.6	511.5	578.5	643.5	678.7	670.6	621.1
45°	325.3	330.3	341.4	358.4	384.0	424.4	481.6	552.5	608.8	630.9	597.7
47.5°	275.1	277.7	287.9	301.7	321.3	351.9	398.4	462.6	529.6	574.3	565.6
50°	235.8	238.8	246.2	256.1	272.0	296.9	332.3	383.6	453.2	511.0	522.6
52.5°	205.2	207.6	211.5	220.7	233.1	250.8	277.7	322.9	383.8	446.2	476.8
55°	178.6	180.3	184.0	189.3	199.7	213.5	238.2	270.3	320.9	382.9	422.2
57.5°	155.9	156.7	158.9	164.2	171.8	182.1	200.8	230.1	266.8	325.0	368.3
60°	134.5	135.3	138.4	141.7	147.4	156.5	170.5	189.5	224.4	270.5	314.4
62.5°	117.4	117.9	118.8	122.0	126.8	133.4	143.6	158.3	184.2	223.3	264.1
65°	101.3	101.5	101.9	104.6	107.6	112.9	120.1	131.0	151.9	182.5	219.2
67.5°	85.1	85.6	87.1	88.0	91.7	94.3	98.9	107.6	123.8	145.6	175.3
70°	72.0	71.8	73.3	74.4	75.5	78.8	81.6	88.4	97.6	113.3	137.1
72.5°	59.8	59.2	59.6	59.8	61.3	63.3	66.1	69.6	76.2	85.8	102.6
75°	47.2	47.4	47.4	47.8	48.9	49.8	50.6	52.8	56.8	64.0	73.8
77.5°	35.4	34.9	36.0	36.0	36.9	38.0	38.6	39.5	41.0	44.3	50.2
80°	24.0	24.0	24.2	24.9	24.7	25.1	26.2	27.1	29.0	30.8	32.5
82.5°	17.0	16.8	17.0	17.0	17.0	17.5	17.7	17.7	18.1	18.8	19.9
85°	10.0	10.0	10.3	10.3	10.5	10.5	10.7	10.7	10.7	10.9	11.1
87.5°	4.8	4.6	4.4	4.4	4.6	5.0	4.8	4.6	4.6	4.6	4.8
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°	531.8	531.8	531.8	531.8	531.8	531.8	531.8	531.8	531.8	531.8	531.8
2.5°	550.1	548.6	545.7	543.1	539.9	537.0	535.1	532.6	529.6	525.9	522.8
5°	570.6	565.8	559.5	554.0	547.1	541.6	535.9	530.5	525.0	518.0	511.9
7.5°	593.3	583.9	575.2	563.9	553.6	544.7	535.9	527.0	518.5	508.9	499.9
10°	613.9	601.8	588.5	573.3	559.3	546.0	533.7	521.7	509.1	497.9	485.9
12.5°	633.1	616.7	601.0	580.7	563.2	546.2	529.8	514.1	500.3	485.1	472.0
15°	643.1	627.8	610.8	587.2	563.9	544.2	525.9	506.5	489.6	473.5	459.1
17.5°	649.0	632.8	613.2	590.3	565.2	540.7	517.6	496.8	477.6	459.1	443.1
20°	646.4	630.9	610.6	589.0	561.7	535.9	510.4	486.8	464.8	444.9	427.6
22.5°	640.1	623.9	604.5	581.3	555.8	528.1	500.3	474.8	451.4	430.7	411.5
25°	633.7	611.9	591.8	569.5	544.9	517.8	489.6	461.9	437.3	416.3	395.8
27.5°	627.6	601.2	576.3	554.9	528.5	504.1	476.5	447.9	422.2	401.0	380.1
30°	618.7	588.1	559.9	534.8	510.2	487.2	461.5	433.8	407.1	385.1	363.7
32.5°	607.5	574.6	542.9	513.0	489.4	466.7	444.0	417.8	392.1	369.1	347.3
35°	598.6	557.1	523.5	492.7	466.3	444.2	423.3	401.9	375.9	352.3	331.2
37.5°	586.1	540.5	502.5	468.9	441.4	419.6	402.8	382.5	358.2	335.3	315.7
40°	575.0	522.2	479.6	446.4	417.2	393.8	378.3	361.7	340.1	318.9	299.3
42.5°	560.2	505.4	456.5	421.5	392.1	369.8	354.1	340.1	322.9	303.2	281.8
45°	539.9	482.7	432.7	395.6	365.9	343.8	329.2	316.3	302.6	284.2	265.9
47.5°	515.6	461.0	408.4	367.6	339.0	318.3	303.9	293.2	283.1	267.2	248.6
50°	485.3	433.1	382.0	342.7	311.7	292.3	279.0	270.9	262.0	247.8	232.9
52.5°	449.5	404.3	354.5	314.1	285.3	267.4	254.8	246.7	239.7	228.8	214.8
55°	411.5	370.7	324.8	288.4	261.5	243.2	231.0	223.3	219.0	209.1	198.0
57.5°	368.5	337.1	295.6	260.0	235.8	217.4	208.3	201.5	196.5	189.3	181.0
60°	323.1	302.6	266.3	232.9	211.1	193.8	185.8	180.3	175.7	169.8	163.7
62.5°	277.0	263.5	233.1	205.6	186.0	172.2	164.8	160.0	154.6	151.1	145.2
65°	236.9	223.5	201.7	179.2	160.7	149.1	143.6	139.3	136.0	131.6	127.5
67.5°	192.3	186.2	170.1	153.2	139.7	128.6	123.8	120.3	116.6	114.0	110.9
70°	151.9	149.3	138.6	128.4	115.9	108.9	104.6	103.3	98.5	95.8	93.9
72.5°	116.1	115.3	110.2	103.9	96.1	90.2	86.2	84.7	82.1	80.1	79.0
75°	84.5	84.9	83.8	79.2	76.0	72.0	68.5	67.7	65.5	63.7	62.7
77.5°	57.6	59.8	59.4	59.2	57.6	54.8	53.3	52.6	50.2	49.6	49.3
80°	36.7	39.1	41.3	41.0	40.6	39.9	38.9	38.2	37.1	36.5	36.0
82.5°	21.4	23.6	25.3	26.9	26.9	26.2	25.5	25.3	25.3	24.9	24.9
85°	11.6	12.0	12.7	14.2	15.3	15.5	15.3	15.1	14.4	14.6	14.8
87.5°	5.0	5.0	5.2	5.2	5.0	6.1	6.8	7.0	6.5	6.1	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°	531.8	531.8	531.8	531.8	531.8	531.8	531.8	531.8	531.8	531.8	531.8
2.5°	520.6	517.6	515.4	511.0	508.0	506.7	504.3	503.6	506.0	504.3	504.1
5°	507.3	501.0	496.0	491.0	485.5	482.0	476.8	475.9	474.6	472.6	472.2
7.5°	491.8	484.0	478.1	469.8	463.0	457.6	451.0	448.4	447.1	444.7	440.7
10°	476.1	466.3	457.6	449.3	440.3	433.1	426.6	421.5	418.3	415.2	413.9
12.5°	460.6	450.6	438.8	428.3	418.0	409.7	402.3	399.5	395.8	392.1	388.6
15°	444.5	431.1	418.9	407.3	398.8	390.1	383.1	378.3	372.9	371.3	365.4
17.5°	427.2	414.8	400.4	387.9	378.3	369.1	361.5	355.8	351.7	345.8	342.9
20°	411.3	395.8	381.8	370.7	359.8	348.4	340.5	336.0	332.0	327.4	325.3
22.5°	394.2	379.2	364.8	351.2	340.1	329.0	324.0	319.2	314.6	310.4	307.4
25°	377.7	362.4	347.3	333.8	322.2	314.1	307.6	302.1	299.7	295.6	292.5
27.5°	361.1	344.9	329.6	315.4	306.5	298.4	293.2	288.8	284.2	280.5	277.7
30°	345.1	328.5	311.5	300.8	291.2	283.6	277.7	273.5	270.3	267.0	265.0
32.5°	329.2	311.9	297.3	285.5	276.6	270.3	264.1	260.2	256.7	253.0	250.6
35°	311.9	294.5	282.3	270.9	262.0	255.8	251.7	246.0	243.2	240.6	238.2
37.5°	296.4	279.9	266.3	256.5	248.2	242.3	236.9	234.0	230.3	228.1	226.2
40°	279.0	264.1	252.1	241.7	236.0	229.2	224.2	220.3	217.6	214.6	212.4
42.5°	263.3	249.7	238.2	229.0	221.6	216.1	211.3	207.4	203.9	201.9	200.2
45°	248.6	234.9	223.5	214.8	208.3	202.8	197.8	195.8	191.4	188.8	188.0
47.5°	233.4	220.9	209.8	201.7	194.9	189.9	185.1	180.8	178.6	175.9	174.6
50°	217.9	206.1	195.8	188.0	181.4	175.7	171.4	168.7	165.5	163.1	161.3
52.5°	202.4	191.7	181.4	174.0	168.5	162.9	157.8	155.2	152.2	150.8	149.8
55°	187.7	176.2	167.4	160.0	154.1	148.9	144.3	141.7	139.7	138.2	137.7
57.5°	170.9	161.5	153.2	146.7	140.4	135.3	131.2	128.8	127.0	126.8	125.3
60°	154.6	146.3	138.8	131.6	126.4	121.8	118.3	115.5	113.7	113.5	113.1
62.5°	138.2	130.3	123.6	117.4	112.9	108.5	105.2	101.9	101.1	99.8	98.7
65°	122.0	114.8	109.1	104.1	99.1	95.4	92.1	90.2	87.8	86.4	84.0
67.5°	106.1	100.2	94.7	90.6	86.4	82.7	79.9	77.1	75.3	74.2	72.3
70°	90.4	86.0	80.6	76.0	72.9	70.1	67.9	64.6	63.5	62.7	61.8
72.5°	75.5	71.8	67.5	64.0	60.9	58.3	55.7	54.6	53.5	52.6	52.2
75°	61.8	58.1	54.1	51.5	49.3	47.2	45.8	44.8	44.3	44.1	43.2
77.5°	48.0	45.8	42.6	40.2	38.6	37.8	36.5	36.0	36.2	35.1	34.9
80°	34.7	33.6	31.0	30.1	29.0	28.2	27.5	26.4	25.3	24.9	24.2
82.5°	23.6	22.5	21.8	20.3	19.4	19.0	18.3	18.1	18.6	17.9	17.7
85°	13.8	12.7	12.2	12.0	11.6	12.0	11.8	11.6	11.4	11.1	11.4
87.5°	5.5	5.5	5.2	5.7	5.0	5.2	5.2	5.0	5.0	5.0	4.8
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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CATALOG NUMBER: S125RDR-S375D835-X4F0-XX-UDD-A-W

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	531.8	531.8	531.8	531.8
2.5°	503.8	501.4	500.8	501.7
5°	470.0	467.8	468.9	468.5
7.5°	441.4	438.6	435.3	436.2
10°	411.1	408.9	407.6	408.7
12.5°	385.5	384.4	383.3	382.5
15°	362.8	360.2	359.1	356.3
17.5°	341.0	340.1	337.3	335.3
20°	322.0	321.1	318.3	320.0
22.5°	306.3	304.1	303.7	302.6
25°	291.6	288.8	287.7	286.4
27.5°	276.8	275.3	273.7	273.3
30°	262.4	260.9	259.8	259.8
32.5°	249.5	248.4	247.3	247.1
35°	237.1	235.3	234.9	233.6
37.5°	224.0	222.4	222.4	222.7
40°	211.5	210.4	210.2	208.7
42.5°	198.2	197.8	196.9	196.5
45°	186.4	184.9	184.9	183.8
47.5°	174.0	172.7	172.9	171.6
50°	161.5	160.9	160.7	160.2
52.5°	149.1	148.9	150.0	148.9
55°	138.2	137.5	138.8	137.5
57.5°	125.3	124.9	126.2	125.3
60°	112.6	111.3	112.0	112.2
62.5°	97.6	96.9	97.4	96.1
65°	83.6	83.0	82.1	81.6
67.5°	72.7	70.7	70.7	71.2
70°	60.5	60.5	60.3	60.3
72.5°	52.0	51.7	51.3	51.1
75°	43.2	43.4	43.0	42.8
77.5°	33.8	32.7	33.2	32.7
80°	24.2	24.0	24.7	24.0
82.5°	17.9	17.7	17.9	17.5
85°	11.6	11.4	11.1	11.4
87.5°	5.0	4.8	4.8	4.8
90°	0.0	0.0	0.0	0.0

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