

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: P242903

Luminaire Tested: **S125RDR-S375D927-X4F0-XX-UDD-A-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242903  
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-S375D927-X4F0-XX-UDD-A-W  
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 2700K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1091.5 lumens  
Efficiency: N/A  
Efficacy: 94.1 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

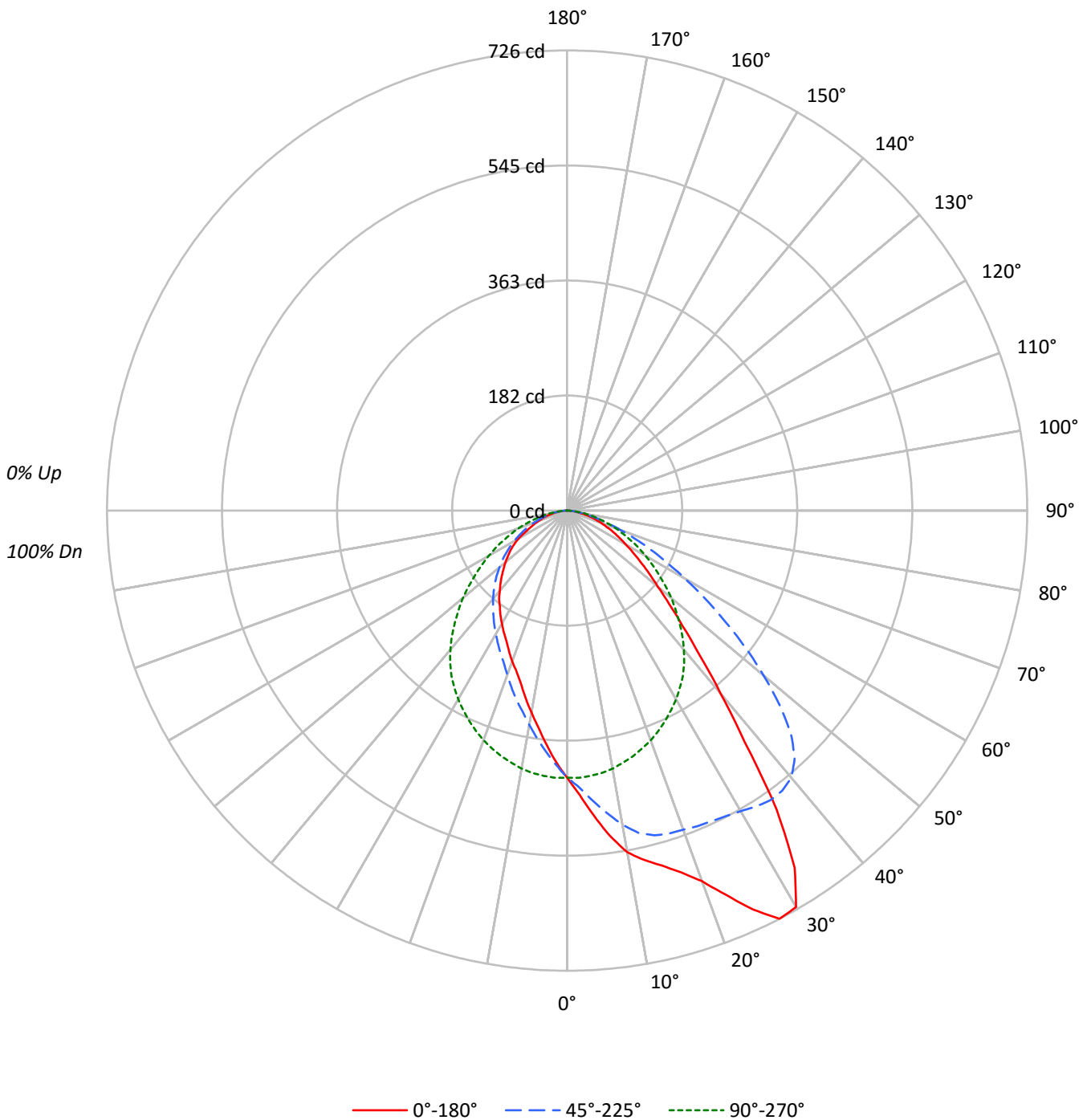
Input Watts (W): 11.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2994	2994	2994
5°	3445	2998	2648
10°	3951	2983	2336
15°	4268	2952	2076
20°	4706	2916	1917
25°	5446	2869	1779
30°	5927	2820	1689
35°	4999	2763	1605
40°	3491	2658	1534
45°	2590	2519	1463
50°	2065	2373	1403
55°	1753	2192	1349
60°	1514	2030	1264
65°	1349	1855	1088
70°	1187	1700	991
75°	1027	1472	931
80°	778	1240	778
85°	652	970	734



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	40.4	3.7
10°-20°	118.4	10.9
20°-30°	187.8	17.2
30°-40°	226.9	20.8
40°-50°	202.1	18.5
50°-60°	154.9	14.2
60°-70°	100.6	9.2
70°-80°	48.8	4.5
80°-90°	11.5	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°	346.6	31.8
0°-40°	573.5	52.5
0°-60°	930.6	85.3
0°-90°	1091.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1091.5	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	421	421	421	421	421	
5°	483	459	420	382	371	48
15°	580	530	401	309	282	166
25°	694	540	366	249	227	320
35°	576	558	318	203	185	349
45°	258	500	251	161	146	204
55°	142	303	177	118	109	128
65°	80	145	110	76	65	80
75°	37	51	54	37	34	40
85°	8	9	12	10	9	9
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°	421.3	421.3	421.3	421.3	421.3	421.3	421.3	421.3	421.3	421.3	421.3
2.5°	448.6	448.2	448.9	447.0	447.2	444.3	444.3	442.0	439.1	436.8	435.8
5°	482.8	483.2	482.5	479.9	478.2	475.6	472.6	467.4	463.1	459.0	455.7
7.5°	517.8	518.1	515.9	515.3	510.8	508.1	501.5	494.8	488.9	481.1	475.6
10°	547.5	547.3	544.9	543.0	539.2	534.4	528.0	519.7	511.9	503.2	494.9
12.5°	564.8	564.3	563.9	561.5	558.1	553.9	548.7	540.6	530.6	520.9	510.8
15°	580.0	578.8	576.6	573.6	568.6	563.6	557.5	550.3	541.1	530.4	521.4
17.5°	598.3	598.5	595.1	591.9	585.4	577.1	568.1	557.0	545.3	534.4	525.4
20°	622.2	621.7	618.2	610.3	602.5	591.4	580.7	566.4	551.1	535.7	523.8
22.5°	656.5	654.9	651.3	640.2	627.1	612.0	594.2	575.9	556.7	538.7	522.1
25°	694.5	693.5	686.4	674.3	657.3	635.4	613.9	589.9	563.4	540.4	521.4
27.5°	726.0	723.9	717.5	706.1	689.5	665.8	636.2	605.1	573.6	543.4	517.2
30°	722.2	724.8	724.1	719.4	707.6	686.9	660.1	623.9	584.7	547.5	514.8
32.5°	667.9	670.1	677.9	690.5	694.3	689.1	670.8	638.1	597.1	553.6	512.9
35°	576.2	579.3	591.1	609.6	633.8	654.0	658.2	640.2	603.7	558.2	511.0
37.5°	459.7	479.9	487.8	506.7	544.7	581.6	613.6	620.8	601.1	557.2	508.8
40°	376.3	380.5	398.1	420.1	450.8	489.6	540.6	577.4	578.6	550.3	501.5
42.5°	308.5	314.0	324.8	341.2	366.4	405.2	458.3	509.8	537.6	531.2	492.0
45°	257.7	261.6	270.5	284.0	304.2	336.2	381.5	437.7	482.3	499.8	473.5
47.5°	217.9	220.0	228.1	239.0	254.6	278.8	315.6	366.4	419.5	455.0	448.1
50°	186.8	189.2	195.1	202.8	215.5	235.2	263.2	303.8	359.0	404.8	414.0
52.5°	162.6	164.5	167.6	174.8	184.7	198.7	220.0	255.8	304.0	353.5	377.7
55°	141.5	142.8	145.8	149.9	158.2	169.1	188.7	214.1	254.2	303.3	334.5
57.5°	123.5	124.2	125.9	130.0	136.1	144.2	159.1	182.3	211.3	257.5	291.7
60°	106.5	107.2	109.6	112.2	116.7	124.0	135.1	150.1	177.8	214.3	249.0
62.5°	93.0	93.4	94.1	96.7	100.5	105.7	113.8	125.4	146.0	176.9	209.2
65°	80.2	80.4	80.8	82.8	85.3	89.4	95.1	103.8	120.4	144.6	173.6
67.5°	67.4	67.8	69.0	69.7	72.6	74.7	78.3	85.3	98.1	115.3	138.9
70°	57.1	56.9	58.1	59.0	59.8	62.4	64.7	70.0	77.3	89.8	108.6
72.5°	47.4	46.9	47.2	47.4	48.6	50.2	52.4	55.2	60.4	68.0	81.3
75°	37.4	37.5	37.5	37.9	38.7	39.4	40.1	41.8	45.0	50.7	58.5
77.5°	28.0	27.7	28.5	28.5	29.2	30.1	30.6	31.3	32.5	35.1	39.8
80°	19.0	19.0	19.2	19.7	19.5	19.9	20.8	21.4	23.0	24.4	25.8
82.5°	13.5	13.3	13.5	13.5	13.5	13.8	14.0	14.0	14.4	14.9	15.7
85°	8.0	8.0	8.1	8.1	8.3	8.3	8.5	8.5	8.5	8.6	8.8
87.5°	3.8	3.6	3.5	3.5	3.6	4.0	3.8	3.6	3.6	3.6	3.8
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°	421.3	421.3	421.3	421.3	421.3	421.3	421.3	421.3	421.3	421.3	421.3
2.5°	435.8	434.6	432.3	430.3	427.7	425.4	423.9	422.0	419.5	416.6	414.2
5°	452.0	448.2	443.2	438.9	433.4	429.0	424.5	420.2	415.9	410.4	405.5
7.5°	470.0	462.6	455.7	446.7	438.6	431.5	424.5	417.5	410.7	403.1	396.0
10°	486.3	476.8	466.2	454.1	443.1	432.5	422.8	413.3	403.3	394.5	384.9
12.5°	501.5	488.5	476.1	460.0	446.2	432.7	419.7	407.3	396.4	384.3	373.9
15°	509.5	497.4	483.9	465.2	446.7	431.1	416.6	401.2	387.9	375.1	363.7
17.5°	514.1	501.3	485.8	467.6	447.7	428.4	410.0	393.6	378.4	363.7	351.1
20°	512.1	499.8	483.7	466.6	445.0	424.5	404.3	385.6	368.2	352.4	338.8
22.5°	507.0	494.2	478.8	460.5	440.3	418.3	396.4	376.1	357.6	341.2	326.0
25°	502.0	484.7	468.8	451.2	431.6	410.2	387.9	365.9	346.4	329.8	313.5
27.5°	497.2	476.3	456.5	439.6	418.7	399.3	377.5	354.9	334.5	317.7	301.1
30°	490.1	465.9	443.6	423.7	404.1	386.0	365.6	343.6	322.5	305.1	288.1
32.5°	481.3	455.2	430.1	406.4	387.7	369.7	351.7	331.0	310.6	292.4	275.1
35°	474.2	441.3	414.7	390.3	369.4	351.9	335.3	318.4	297.8	279.1	262.3
37.5°	464.3	428.2	398.1	371.5	349.7	332.4	319.1	303.0	283.8	265.6	250.1
40°	455.5	413.7	379.9	353.6	330.5	312.0	299.7	286.5	269.4	252.7	237.1
42.5°	443.7	400.3	361.6	333.9	310.6	292.9	280.5	269.4	255.8	240.2	223.3
45°	427.7	382.4	342.8	313.4	289.8	272.4	260.8	250.6	239.7	225.2	210.6
47.5°	408.5	365.2	323.6	291.2	268.6	252.1	240.7	232.2	224.3	211.7	197.0
50°	384.4	343.1	302.6	271.5	246.9	231.6	221.0	214.6	207.5	196.3	184.5
52.5°	356.1	320.3	280.8	248.8	226.0	211.8	201.8	195.4	189.9	181.2	170.2
55°	326.0	293.6	257.3	228.4	207.2	192.6	183.0	176.9	173.5	165.7	156.8
57.5°	291.9	267.0	234.2	206.0	186.8	172.2	165.0	159.6	155.6	149.9	143.4
60°	255.9	239.7	211.0	184.5	167.2	153.6	147.2	142.8	139.2	134.5	129.7
62.5°	219.5	208.7	184.7	162.9	147.3	136.4	130.6	126.8	122.4	119.7	115.0
65°	187.6	177.1	159.8	142.0	127.3	118.1	113.8	110.3	107.7	104.3	101.0
67.5°	152.4	147.5	134.7	121.4	110.7	101.9	98.1	95.3	92.3	90.3	87.8
70°	120.4	118.3	109.8	101.7	91.8	86.3	82.8	81.8	78.0	75.9	74.4
72.5°	92.0	91.3	87.3	82.3	76.1	71.4	68.3	67.1	65.0	63.5	62.6
75°	66.9	67.3	66.4	62.8	60.2	57.1	54.3	53.6	51.9	50.5	49.6
77.5°	45.7	47.4	47.0	46.9	45.7	43.4	42.2	41.7	39.8	39.3	39.1
80°	29.1	31.0	32.7	32.5	32.2	31.6	30.8	30.3	29.4	28.9	28.5
82.5°	16.9	18.7	20.1	21.3	21.3	20.8	20.2	20.1	20.1	19.7	19.7
85°	9.2	9.5	10.0	11.2	12.1	12.3	12.1	11.9	11.4	11.6	11.8
87.5°	4.0	4.0	4.2	4.2	4.0	4.8	5.4	5.5	5.2	4.8	4.5
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°	421.3	421.3	421.3	421.3	421.3	421.3	421.3	421.3	421.3	421.3	421.3
2.5°	412.4	410.0	408.3	404.8	402.4	401.4	399.5	399.0	400.9	399.5	399.3
5°	401.9	396.9	392.9	388.9	384.6	381.8	377.7	377.0	376.0	374.4	374.1
7.5°	389.6	383.4	378.7	372.2	366.8	362.5	357.3	355.2	354.2	352.3	349.2
10°	377.2	369.4	362.5	355.9	348.8	343.1	337.9	333.9	331.3	328.9	327.9
12.5°	364.9	356.9	347.6	339.3	331.2	324.6	318.7	316.5	313.5	310.6	307.8
15°	352.1	341.5	331.9	322.7	315.9	309.0	303.5	299.7	295.4	294.2	289.5
17.5°	338.4	328.6	317.2	307.3	299.7	292.4	286.4	281.9	278.6	273.9	271.7
20°	325.8	313.5	302.5	293.6	285.0	276.0	269.8	266.1	263.0	259.4	257.7
22.5°	312.3	300.4	289.0	278.2	269.4	260.6	256.6	252.8	249.2	245.9	243.5
25°	299.2	287.1	275.1	264.4	255.2	248.8	243.7	239.3	237.4	234.2	231.7
27.5°	286.0	273.2	261.1	249.9	242.8	236.4	232.2	228.8	225.2	222.2	220.0
30°	273.4	260.3	246.8	238.3	230.7	224.6	220.0	216.7	214.1	211.5	209.9
32.5°	260.8	247.1	235.5	226.2	219.1	214.1	209.2	206.1	203.4	200.4	198.5
35°	247.1	233.3	223.6	214.6	207.5	202.7	199.4	194.9	192.6	190.6	188.7
37.5°	234.8	221.7	211.0	203.2	196.6	192.0	187.6	185.4	182.4	180.7	179.2
40°	221.0	209.2	199.7	191.4	186.9	181.6	177.6	174.5	172.4	170.0	168.3
42.5°	208.6	197.8	188.7	181.4	175.5	171.2	167.4	164.3	161.5	160.0	158.6
45°	197.0	186.1	177.1	170.2	165.0	160.7	156.7	155.1	151.7	149.6	148.9
47.5°	184.9	175.0	166.2	159.8	154.4	150.5	146.6	143.2	141.5	139.4	138.3
50°	172.6	163.2	155.1	148.9	143.7	139.2	135.8	133.7	131.1	129.2	127.8
52.5°	160.3	151.8	143.7	137.8	133.5	129.0	125.0	123.0	120.5	119.5	118.6
55°	148.7	139.6	132.6	126.8	122.1	117.9	114.3	112.2	110.7	109.5	109.1
57.5°	135.4	128.0	121.4	116.2	111.2	107.2	103.9	102.0	100.6	100.5	99.3
60°	122.4	115.9	110.0	104.3	100.1	96.5	93.7	91.5	90.1	89.9	89.6
62.5°	109.5	103.2	97.9	93.0	89.4	85.9	83.4	80.8	80.1	79.0	78.2
65°	96.7	91.0	86.5	82.5	78.5	75.6	73.0	71.4	69.5	68.5	66.6
67.5°	84.0	79.4	75.1	71.8	68.5	65.5	63.3	61.0	59.7	58.8	57.2
70°	71.6	68.1	63.8	60.2	57.8	55.5	53.8	51.2	50.3	49.6	48.9
72.5°	59.8	56.9	53.4	50.7	48.2	46.2	44.1	43.2	42.4	41.7	41.3
75°	48.9	46.0	42.9	40.8	39.1	37.4	36.3	35.5	35.1	34.9	34.2
77.5°	38.0	36.3	33.7	31.8	30.6	29.9	28.9	28.5	28.7	27.8	27.7
80°	27.5	26.6	24.6	23.9	23.0	22.3	21.8	20.9	20.1	19.7	19.2
82.5°	18.7	17.8	17.3	16.1	15.4	15.0	14.5	14.4	14.7	14.2	14.0
85°	10.9	10.0	9.7	9.5	9.2	9.5	9.3	9.2	9.0	8.8	9.0
87.5°	4.3	4.3	4.2	4.5	4.0	4.2	4.2	4.0	4.0	4.0	3.8
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-S375D927-X4F0-XX-UDD-A-W

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	421.3	421.3	421.3	421.3
2.5°	399.1	397.2	396.7	397.4
5°	372.3	370.6	371.5	371.1
7.5°	349.7	347.4	344.8	345.5
10°	325.6	323.9	322.9	323.7
12.5°	305.4	304.5	303.7	303.0
15°	287.4	285.3	284.5	282.2
17.5°	270.1	269.4	267.2	265.6
20°	255.1	254.4	252.1	253.5
22.5°	242.6	240.9	240.5	239.7
25°	231.0	228.8	227.9	226.9
27.5°	219.3	218.1	216.9	216.5
30°	207.9	206.7	205.8	205.8
32.5°	197.7	196.8	195.9	195.8
35°	187.8	186.4	186.1	185.0
37.5°	177.4	176.2	176.2	176.4
40°	167.6	166.7	166.5	165.3
42.5°	157.0	156.7	156.0	155.6
45°	147.7	146.5	146.5	145.6
47.5°	137.8	136.8	137.0	135.9
50°	128.0	127.5	127.3	126.9
52.5°	118.1	117.9	118.8	117.9
55°	109.5	108.9	110.0	108.9
57.5°	99.3	98.9	100.0	99.3
60°	89.2	88.2	88.7	88.9
62.5°	77.3	76.8	77.1	76.1
65°	66.2	65.7	65.0	64.7
67.5°	57.6	56.0	56.0	56.4
70°	47.9	47.9	47.7	47.7
72.5°	41.2	41.0	40.6	40.5
75°	34.2	34.4	34.1	33.9
77.5°	26.8	25.9	26.3	25.9
80°	19.2	19.0	19.5	19.0
82.5°	14.2	14.0	14.2	13.8
85°	9.2	9.0	8.8	9.0
87.5°	4.0	3.8	3.8	3.8
90°	0.0	0.0	0.0	0.0

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