

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: P243784

Luminaire Tested: **S125RDR-H610D930-X4F0-XX-UDD-A-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243784
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-H610D930-X4F0-XX-UDD-A-W
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1824.1 lumens
Efficiency: N/A
Efficacy: 106.0 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

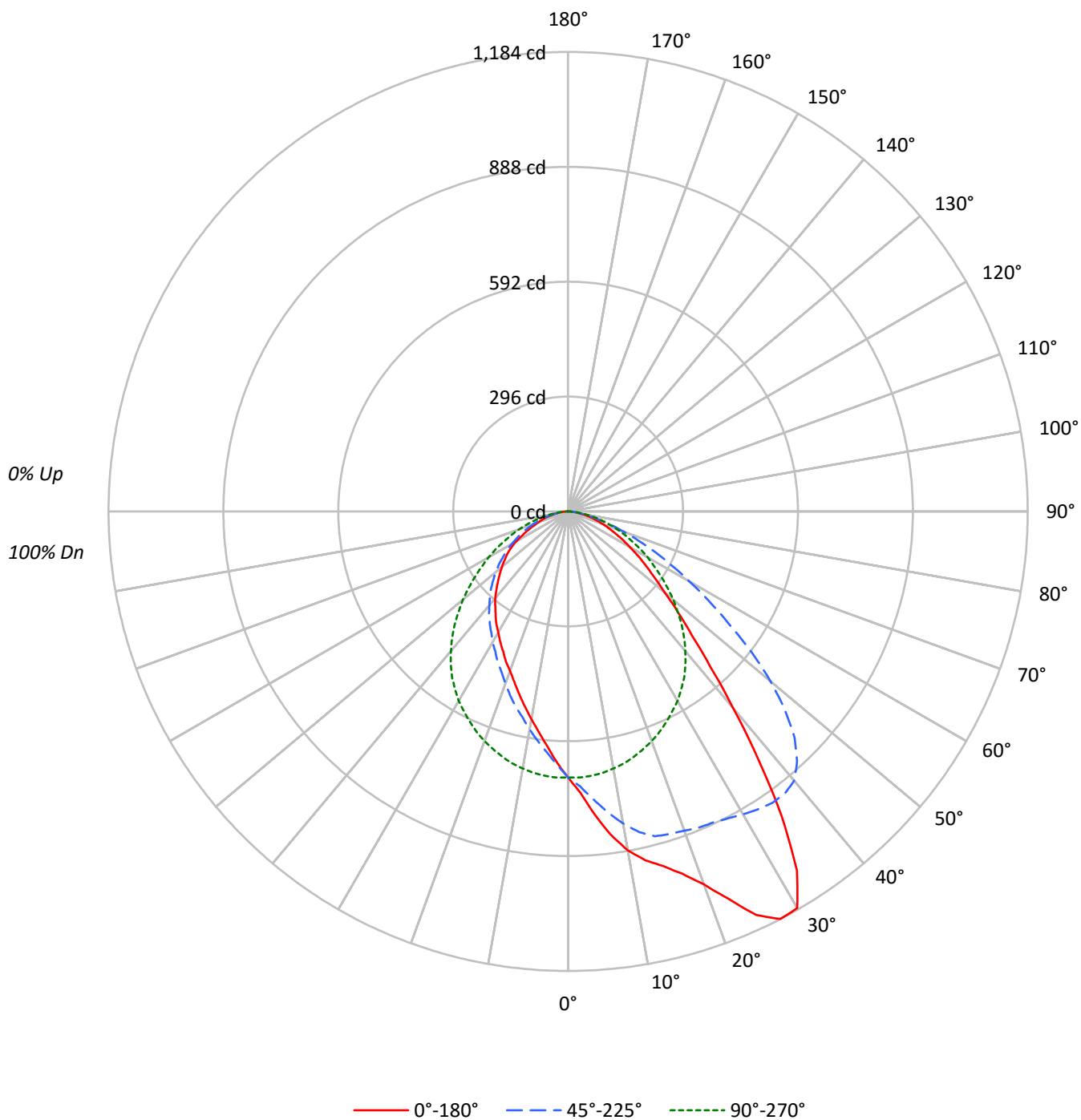
Input Watts (W): 17.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
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°	4871	4871	4871
5°	5592	4879	4339
10°	6398	4854	3922
15°	6959	4815	3587
20°	7733	4760	3305
25°	8998	4693	3112
30°	9688	4624	2953
35°	8323	4520	2825
40°	6132	4357	2708
45°	4529	4155	2568
50°	3588	3906	2464
55°	3031	3619	2370
60°	2611	3353	2195
65°	2267	3052	1910
70°	1989	2795	1671
75°	1686	2447	1582
80°	1314	2046	1314
85°	1150	1639	1199

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.0	3.6
10°-20°	195.2	10.7
20°-30°	311.3	17.1
30°-40°	378.0	20.7
40°-50°	340.6	18.7
50°-60°	261.9	14.4
60°-70°	170.0	9.3
70°-80°	81.8	4.5
80°-90°	19.3	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°	572.5	31.4
0°-40°	950.4	52.1
0°-60°	1553.0	85.1
0°-90°	1824.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1824.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	685	685	685	685	685	
5°	784	745	684	623	608	78
15°	946	867	654	521	488	271
25°	1147	884	598	429	397	525
35°	959	917	521	352	326	587
45°	451	825	413	280	256	358
55°	245	507	292	205	191	222
65°	135	246	182	130	114	135
75°	61	83	89	64	58	66
85°	14	15	20	16	15	16
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°	685.4	685.4	685.4	685.4	685.4	685.4	685.4	685.4	685.4	685.4	685.4
2.5°	725.1	727.8	725.6	727.0	724.8	723.7	721.0	716.9	712.8	709.0	708.8
5°	783.8	783.2	781.0	778.1	775.9	770.4	767.7	758.5	752.2	744.6	740.8
7.5°	839.7	838.4	835.1	831.0	829.1	822.1	814.5	802.8	793.0	781.0	772.1
10°	886.5	886.2	883.8	881.1	873.7	865.8	858.5	846.3	831.6	816.6	804.1
12.5°	920.7	919.4	916.4	911.8	905.8	900.3	890.6	879.4	861.5	846.3	829.1
15°	945.7	945.2	940.8	939.2	927.5	919.9	906.9	895.7	881.9	866.6	848.2
17.5°	978.9	980.0	976.2	966.9	956.3	944.6	926.2	908.0	888.7	871.0	856.1
20°	1022.4	1019.7	1013.1	1002.0	983.0	968.6	950.1	927.5	901.4	875.3	853.9
22.5°	1080.5	1077.5	1067.2	1053.6	1029.7	1003.3	975.1	941.4	911.5	881.6	853.3
25°	1147.4	1141.7	1126.5	1111.8	1077.8	1049.8	1007.7	967.5	924.0	884.3	852.5
27.5°	1183.8	1183.8	1176.7	1160.7	1133.8	1092.5	1049.5	996.0	945.7	891.4	846.3
30°	1180.5	1178.6	1181.4	1174.6	1157.2	1126.2	1083.5	1027.3	963.1	900.9	846.8
32.5°	1096.3	1097.1	1113.4	1124.6	1133.2	1125.6	1097.9	1047.1	983.2	910.1	844.6
35°	959.3	961.5	990.3	1009.3	1048.2	1070.5	1077.0	1049.5	992.2	916.7	840.8
37.5°	802.8	802.8	836.2	865.0	908.5	963.4	1004.4	1014.8	986.8	916.4	837.6
40°	660.9	660.1	686.5	721.8	768.3	828.9	890.0	942.5	949.3	905.8	826.2
42.5°	540.8	539.4	568.3	587.8	636.7	690.8	772.1	846.3	888.7	872.9	809.3
45°	450.6	449.5	468.2	490.5	525.0	581.3	649.5	731.9	803.1	824.8	777.8
47.5°	382.6	383.2	393.2	412.0	441.3	481.6	542.7	619.1	707.1	757.4	738.1
50°	324.5	326.4	334.0	348.1	369.6	401.9	454.4	523.4	613.9	680.5	684.6
52.5°	281.0	283.7	291.9	299.5	317.4	340.2	381.0	440.8	515.5	595.4	624.0
55°	244.6	245.9	250.6	258.7	272.0	291.1	320.7	366.3	435.6	506.8	557.1
57.5°	214.1	214.1	217.1	222.8	233.4	250.6	270.4	308.2	366.6	431.0	484.6
60°	183.7	184.8	187.0	193.2	200.3	213.3	232.6	256.5	307.1	360.9	418.5
62.5°	158.2	160.1	162.2	165.2	171.8	181.0	194.6	216.6	250.6	300.3	351.7
65°	134.8	136.7	137.0	140.5	144.8	152.5	162.8	178.8	207.1	246.2	288.6
67.5°	114.1	115.0	115.8	118.5	122.6	127.5	134.3	146.2	168.5	194.9	236.2
70°	95.7	96.2	96.5	99.5	101.4	105.7	109.2	116.9	131.0	151.4	183.4
72.5°	78.3	77.5	77.2	79.6	80.4	84.0	88.3	93.8	101.4	115.8	139.7
75°	61.4	61.7	62.0	63.3	63.6	65.2	67.9	71.5	75.0	83.4	98.6
77.5°	47.3	46.2	46.2	47.8	48.4	48.6	50.5	52.5	54.4	59.2	65.2
80°	32.1	32.6	32.6	32.6	32.9	33.4	34.5	36.1	37.5	40.5	41.6
82.5°	22.8	22.8	22.6	23.1	23.4	23.6	23.6	23.6	24.5	25.3	26.4
85°	14.1	14.4	13.6	14.1	14.4	14.4	14.4	14.4	15.2	14.9	15.2
87.5°	6.0	6.3	6.3	6.5	6.5	6.8	6.5	6.8	6.5	6.5	6.8
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°	685.4	685.4	685.4	685.4	685.4	685.4	685.4	685.4	685.4	685.4	685.4
2.5°	707.9	704.7	703.0	699.8	695.4	692.7	690.0	686.2	683.2	678.6	674.5
5°	734.0	727.5	721.5	713.4	705.5	698.7	691.6	683.8	676.7	668.8	660.4
7.5°	763.1	752.8	740.3	725.9	713.6	703.0	691.1	679.4	668.8	656.3	644.9
10°	791.1	774.5	757.9	738.6	720.7	705.0	688.9	672.6	658.8	643.3	629.1
12.5°	812.8	797.1	772.3	748.4	725.1	704.7	684.6	664.7	646.5	629.4	612.6
15°	831.9	805.8	784.8	758.8	730.2	702.5	677.5	654.4	632.4	612.3	595.2
17.5°	837.3	813.9	791.1	760.7	730.0	698.4	669.6	642.2	617.7	595.4	576.1
20°	836.8	813.1	788.4	759.3	726.7	692.2	660.1	629.4	601.7	576.1	555.5
22.5°	828.6	805.8	780.8	751.4	718.3	682.7	649.0	615.0	584.8	558.2	537.0
25°	819.9	791.1	765.0	735.4	703.9	671.0	635.1	598.4	566.9	539.2	515.3
27.5°	812.3	777.8	745.7	716.6	684.3	654.7	619.1	580.8	548.4	519.3	494.6
30°	800.1	763.7	724.8	693.0	661.7	630.8	598.1	563.4	528.0	498.4	473.7
32.5°	789.5	743.5	701.4	665.5	634.3	607.1	575.9	542.4	507.9	479.7	453.0
35°	777.8	722.9	678.9	636.7	605.5	575.9	551.1	521.0	486.7	456.8	432.9
37.5°	763.9	701.7	651.1	608.2	575.9	545.4	523.1	496.2	465.3	435.6	412.0
40°	748.4	679.9	621.8	577.5	542.7	512.3	493.5	469.6	443.2	413.9	391.9
42.5°	728.9	656.8	595.2	546.8	508.2	480.7	462.0	442.2	418.0	392.4	368.5
45°	704.1	628.0	563.4	512.3	474.2	447.6	428.0	413.4	394.1	370.1	347.6
47.5°	674.0	597.9	530.8	477.8	441.1	415.5	397.3	382.6	368.0	347.3	325.8
50°	634.0	563.4	499.0	444.9	406.0	381.3	365.0	353.3	340.0	323.1	303.6
52.5°	590.0	524.5	461.5	410.9	373.4	348.7	331.8	322.0	312.0	298.1	281.3
55°	538.9	485.6	425.6	376.1	339.4	315.0	301.7	292.1	283.7	273.1	259.0
57.5°	484.8	438.1	385.9	340.2	305.7	282.6	270.9	263.1	256.0	248.4	236.7
60°	428.0	394.9	345.4	303.6	273.4	254.4	243.2	235.9	229.4	223.1	214.4
62.5°	368.8	341.3	304.4	268.8	241.9	223.9	215.8	209.5	202.7	197.3	191.0
65°	308.7	293.0	267.4	234.0	209.3	194.6	186.7	181.5	178.3	172.0	167.1
67.5°	254.1	245.4	223.7	201.1	182.1	168.8	161.4	157.6	154.1	151.1	145.7
70°	202.2	195.9	183.4	167.4	152.5	141.0	135.6	134.5	129.6	126.6	123.9
72.5°	154.1	152.5	142.1	135.1	126.6	117.7	113.6	111.4	108.2	105.4	104.4
75°	109.5	112.0	108.7	105.2	101.1	93.8	90.2	89.1	86.1	85.3	84.0
77.5°	74.7	78.3	79.4	77.7	75.8	73.4	70.9	69.8	66.9	66.3	65.5
80°	47.0	52.2	54.1	53.8	53.0	53.3	50.3	50.0	48.6	47.8	48.6
82.5°	28.5	31.3	34.8	35.6	34.5	35.1	34.2	33.2	33.2	33.7	32.6
85°	15.5	15.8	17.4	18.5	19.8	20.9	19.8	20.1	19.8	19.8	19.0
87.5°	6.8	7.1	7.1	6.8	7.3	7.9	9.0	9.5	9.2	8.4	7.3
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°	685.4	685.4	685.4	685.4	685.4	685.4	685.4	685.4	685.4	685.4	685.4
2.5°	671.3	669.4	666.1	663.4	657.1	652.8	652.2	652.5	652.0	651.4	651.1
5°	654.9	648.7	642.7	637.6	630.5	623.4	620.2	618.8	618.3	615.3	616.9
7.5°	637.6	628.0	621.0	611.2	602.8	596.8	591.1	588.4	587.8	583.7	582.7
10°	619.1	607.7	597.1	587.3	578.9	570.4	563.6	561.2	557.9	554.7	549.8
12.5°	600.9	586.7	575.0	564.2	552.8	543.3	537.8	534.3	530.2	527.2	525.6
15°	579.1	567.2	552.8	541.1	529.4	521.0	513.6	507.1	503.3	500.9	494.1
17.5°	559.6	543.8	530.2	519.1	506.3	496.8	489.2	483.7	477.2	472.3	468.0
20°	538.6	522.3	509.8	496.5	483.5	471.8	462.3	457.9	453.3	448.7	446.2
22.5°	516.1	501.9	487.8	474.0	460.1	447.6	441.6	435.4	431.3	426.7	423.4
25°	496.5	481.0	466.9	451.4	436.2	428.8	420.7	414.4	411.2	406.6	403.0
27.5°	475.6	460.6	443.8	427.8	418.8	406.3	400.8	396.0	391.6	387.0	384.5
30°	456.0	438.6	421.8	409.3	397.6	388.6	383.5	377.5	371.5	369.3	366.1
32.5°	435.4	416.6	401.9	389.4	379.7	368.8	363.9	359.0	353.3	350.6	347.6
35°	413.9	395.7	381.3	369.9	359.8	351.7	346.2	341.1	337.5	333.5	331.3
37.5°	391.3	375.6	361.7	350.3	341.1	334.5	327.7	323.7	318.8	315.0	313.3
40°	369.9	355.7	342.4	331.8	323.4	315.5	309.5	304.4	301.4	298.1	295.4
42.5°	350.6	335.9	324.5	313.3	305.7	298.1	292.1	288.3	283.2	281.8	278.0
45°	329.9	316.3	304.9	294.6	286.7	280.5	273.4	268.8	265.5	262.3	260.9
47.5°	309.0	296.5	285.9	276.4	268.2	261.2	255.7	250.8	247.3	244.3	242.7
50°	288.6	277.7	267.1	257.9	249.5	244.3	237.8	232.4	229.6	226.4	224.5
52.5°	267.1	258.2	246.8	238.9	231.0	224.2	217.7	214.1	211.4	208.7	207.4
55°	247.0	237.5	227.7	219.3	211.7	204.6	199.5	196.8	193.2	191.6	191.3
57.5°	226.4	216.6	208.4	200.8	192.1	186.7	182.1	178.8	175.8	174.5	174.5
60°	203.8	195.9	188.3	179.9	173.7	167.4	162.5	160.3	157.4	156.8	154.9
62.5°	183.2	175.8	168.5	160.6	154.9	148.7	145.1	142.1	140.5	138.3	136.2
65°	161.7	155.2	148.1	141.3	136.7	129.9	126.6	123.1	121.2	118.8	116.0
67.5°	141.0	134.8	128.3	122.0	118.2	111.7	109.5	105.2	103.8	101.1	98.6
70°	119.3	115.0	109.8	103.5	100.3	95.1	92.9	88.9	86.7	85.1	83.7
72.5°	100.6	96.5	90.5	86.4	82.3	79.1	75.5	73.6	71.7	70.4	70.1
75°	82.1	76.9	73.4	69.6	66.9	63.6	62.0	60.6	59.8	59.0	58.2
77.5°	62.8	60.6	57.1	53.3	51.1	49.7	48.6	48.1	47.3	47.0	46.2
80°	46.7	43.8	41.6	40.2	38.6	37.5	36.7	34.8	33.7	33.2	32.6
82.5°	31.0	30.2	28.5	27.2	25.8	25.5	24.7	24.2	23.9	23.9	23.6
85°	18.8	16.6	16.6	16.3	16.3	16.0	15.5	15.5	14.9	15.8	15.8
87.5°	7.6	7.6	7.1	7.1	7.3	6.8	6.5	6.5	6.5	6.3	6.5
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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CATALOG NUMBER: S125RDR-H610D930-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	685.4	685.4	685.4	685.4
2.5°	651.1	649.8	650.1	648.4
5°	613.9	613.1	610.4	608.2
7.5°	579.9	576.4	576.1	574.0
10°	548.1	544.9	543.3	543.5
12.5°	520.4	516.9	516.9	514.7
15°	490.8	487.3	487.8	487.5
17.5°	466.3	463.9	462.0	460.4
20°	442.4	439.4	438.4	437.0
22.5°	420.4	418.2	418.5	418.5
25°	399.5	399.8	397.3	396.8
27.5°	381.0	380.5	379.9	378.8
30°	363.6	361.4	360.9	359.8
32.5°	345.7	345.4	343.2	344.1
35°	327.5	326.7	326.1	325.6
37.5°	310.6	309.0	308.7	308.2
40°	293.5	293.0	290.5	291.9
42.5°	275.0	273.9	273.9	273.9
45°	259.5	256.5	256.5	255.5
47.5°	242.1	241.1	240.5	238.6
50°	225.0	223.4	222.8	222.8
52.5°	207.4	207.1	207.6	206.5
55°	191.9	192.1	191.9	191.3
57.5°	175.0	173.7	173.7	173.9
60°	154.9	154.9	155.4	154.4
62.5°	135.6	135.1	133.2	132.6
65°	115.8	113.6	113.3	113.6
67.5°	98.1	97.3	95.9	96.2
70°	82.9	82.6	81.3	80.4
72.5°	69.3	69.3	68.5	68.5
75°	57.9	57.3	57.1	57.6
77.5°	44.6	43.2	43.8	42.9
80°	32.3	32.9	32.3	32.1
82.5°	23.9	23.4	23.6	23.4
85°	15.2	14.7	14.9	14.7
87.5°	6.3	6.5	6.5	6.0
90°	0.0	0.0	0.0	0.0

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