

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: P243789

Luminaire Tested: **S125RDR-H610D935-X4F0-XX-UDD-A-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243789
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-H610D935-X4F0-XX-UDD-A-W
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1926.3 lumens
Efficiency: N/A
Efficacy: 112.0 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

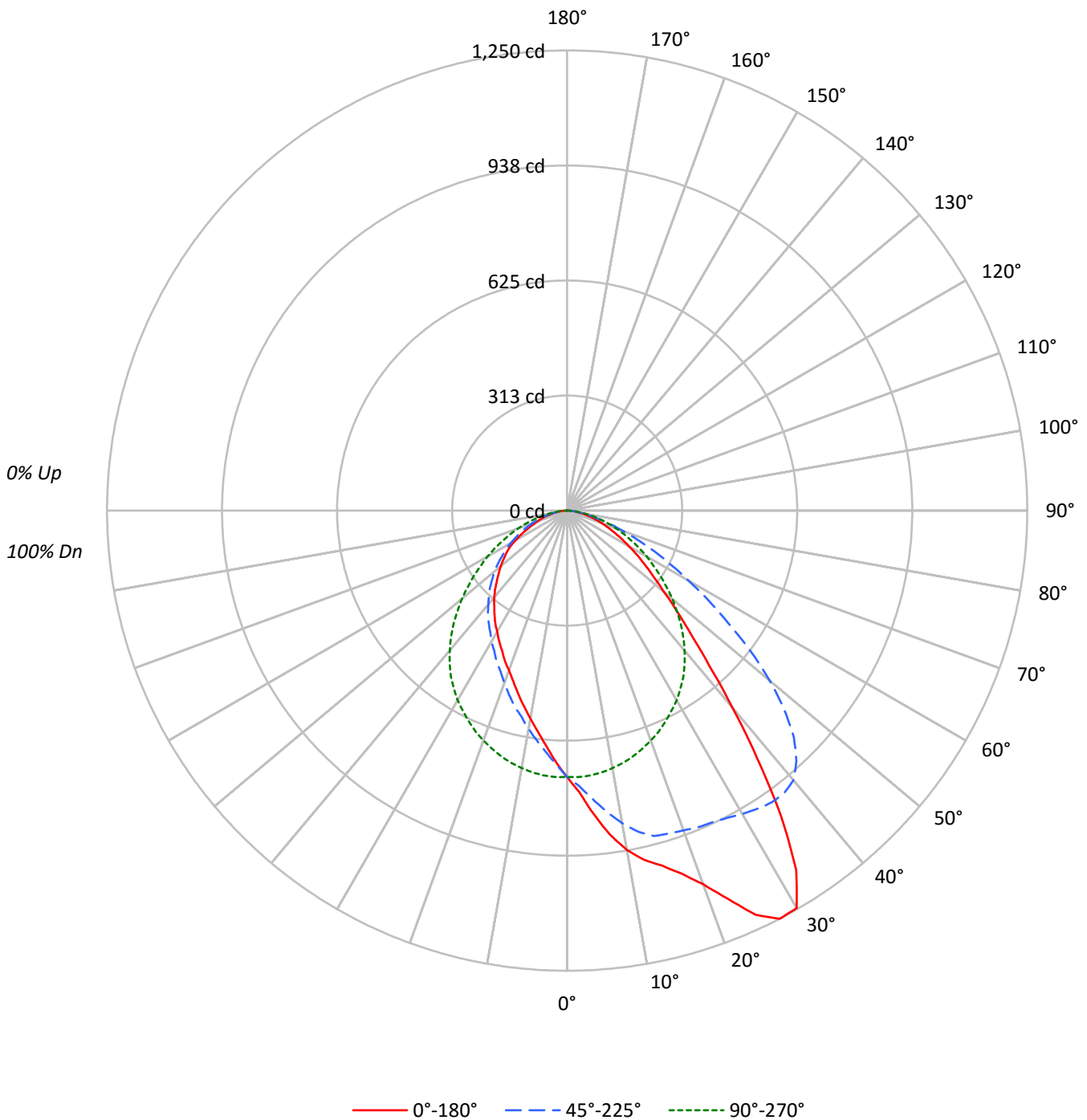
Input Watts (W): 17.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				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°	5144	5144	5144
5°	5905	5152	4582
10°	6757	5126	4143
15°	7348	5085	3789
20°	8166	5027	3491
25°	9502	4956	3286
30°	10231	4882	3119
35°	8790	4774	2983
40°	6476	4601	2859
45°	4782	4387	2712
50°	3789	4125	2602
55°	3201	3823	2503
60°	2758	3541	2317
65°	2393	3224	2018
70°	2099	2953	1766
75°	1782	2584	1670
80°	1388	2161	1388
85°	1215	1729	1264



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.7	3.6
10°-20°	206.1	10.7
20°-30°	328.8	17.1
30°-40°	399.2	20.7
40°-50°	359.7	18.7
50°-60°	276.6	14.4
60°-70°	179.5	9.3
70°-80°	86.4	4.5
80°-90°	20.4	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°	604.5	31.4
0°-40°	1003.7	52.1
0°-60°	1640.0	85.1
0°-90°	1926.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1926.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	724	724	724	724	724	
5°	828	786	722	658	642	82
15°	999	915	691	550	515	286
25°	1212	934	632	453	419	554
35°	1013	968	550	371	344	620
45°	476	871	436	296	270	378
55°	258	535	308	216	202	234
65°	142	260	192	137	120	143
75°	65	88	94	67	61	70
85°	15	16	21	17	16	17
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°	723.8	723.8	723.8	723.8	723.8	723.8	723.8	723.8	723.8	723.8	723.8
2.5°	765.7	768.6	766.3	767.7	765.4	764.3	761.4	757.1	752.8	748.8	748.5
5°	827.7	827.1	824.8	821.7	819.4	813.6	810.8	801.0	794.4	786.4	782.4
7.5°	886.8	885.4	881.9	877.6	875.6	868.2	860.1	847.8	837.5	824.8	815.4
10°	936.2	935.9	933.3	930.4	922.7	914.4	906.6	893.7	878.2	862.4	849.2
12.5°	972.3	970.9	967.7	962.9	956.6	950.8	940.5	928.7	909.8	893.7	875.6
15°	998.7	998.2	993.6	991.9	979.5	971.5	957.7	945.9	931.3	915.2	895.7
17.5°	1033.8	1034.9	1030.9	1021.1	1009.9	997.6	978.1	958.9	938.5	919.8	904.0
20°	1079.7	1076.8	1069.9	1058.2	1038.1	1022.9	1003.3	979.5	952.0	924.4	901.7
22.5°	1141.1	1137.9	1127.0	1112.7	1087.4	1059.6	1029.7	994.2	962.6	931.0	901.2
25°	1211.7	1205.7	1189.6	1174.1	1138.2	1108.7	1064.2	1021.7	975.8	933.9	900.3
27.5°	1250.2	1250.2	1242.7	1225.8	1197.3	1153.7	1108.4	1051.8	998.7	941.3	893.7
30°	1246.7	1244.7	1247.6	1240.4	1222.0	1189.3	1144.3	1084.8	1017.1	951.4	894.3
32.5°	1157.7	1158.6	1175.8	1187.6	1196.8	1188.7	1159.5	1105.8	1038.4	961.1	892.0
35°	1013.1	1015.4	1045.8	1065.9	1106.9	1130.5	1137.4	1108.4	1047.8	968.0	888.0
37.5°	847.8	847.8	883.1	913.5	959.4	1017.4	1060.7	1071.6	1042.1	967.7	884.5
40°	698.0	697.1	725.0	762.3	811.3	875.3	939.9	995.3	1002.5	956.6	872.5
42.5°	571.1	569.7	600.1	620.8	672.4	729.5	815.4	893.7	938.5	921.8	854.7
45°	475.8	474.7	494.5	518.0	554.5	613.9	685.9	772.9	848.1	871.0	821.4
47.5°	404.1	404.7	415.3	435.1	466.1	508.6	573.1	653.8	746.8	799.9	779.5
50°	342.7	344.7	352.7	367.6	390.3	424.5	479.9	552.8	648.3	718.6	722.9
52.5°	296.8	299.6	308.2	316.3	335.2	359.3	402.4	465.5	544.4	628.8	658.9
55°	258.3	259.7	264.6	273.2	287.3	307.4	338.7	386.9	460.1	535.2	588.3
57.5°	226.2	226.2	229.3	235.3	246.5	264.6	285.6	325.5	387.2	455.2	511.7
60°	194.0	195.2	197.5	204.1	211.5	225.3	245.7	270.9	324.3	381.1	442.0
62.5°	167.0	169.0	171.3	174.5	181.4	191.1	205.5	228.7	264.6	317.1	371.4
65°	142.3	144.4	144.6	148.4	153.0	161.0	171.9	188.8	218.7	260.0	304.8
67.5°	120.5	121.4	122.3	125.1	129.4	134.6	141.8	154.4	177.9	205.8	249.4
70°	101.0	101.6	101.9	105.0	107.0	111.6	115.4	123.4	138.3	159.9	193.7
72.5°	82.7	81.8	81.5	84.1	85.0	88.7	93.3	99.0	107.0	122.3	147.5
75°	64.9	65.1	65.4	66.9	67.2	68.9	71.7	75.5	79.2	88.1	104.2
77.5°	49.9	48.8	48.8	50.5	51.1	51.4	53.4	55.4	57.4	62.6	68.9
80°	33.9	34.4	34.4	34.4	34.7	35.3	36.4	38.2	39.6	42.8	43.9
82.5°	24.1	24.1	23.8	24.4	24.7	25.0	25.0	25.0	25.8	26.7	27.8
85°	14.9	15.2	14.3	14.9	15.2	15.2	15.2	15.2	16.1	15.8	16.1
87.5°	6.3	6.6	6.6	6.9	6.9	7.2	6.9	7.2	6.9	6.9	7.2
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°	723.8	723.8	723.8	723.8	723.8	723.8	723.8	723.8	723.8	723.8	723.8
2.5°	747.6	744.2	742.5	739.0	734.4	731.6	728.7	724.7	721.5	716.6	712.3
5°	775.2	768.3	762.0	753.4	745.0	737.9	730.4	722.1	714.6	706.3	697.4
7.5°	805.9	795.0	781.8	766.6	753.7	742.5	729.8	717.5	706.3	693.1	681.0
10°	835.4	817.9	800.4	780.1	761.1	744.5	727.5	710.3	695.7	679.3	664.4
12.5°	858.4	841.8	815.6	790.4	765.7	744.2	722.9	702.0	682.8	664.7	646.9
15°	878.5	850.9	828.8	801.3	771.2	741.9	715.5	691.1	667.8	646.6	628.5
17.5°	884.2	859.6	835.4	803.3	770.9	737.6	707.2	678.2	652.3	628.8	608.4
20°	883.7	858.7	832.6	801.9	767.4	731.0	697.1	664.7	635.4	608.4	586.6
22.5°	875.0	850.9	824.5	793.5	758.5	720.9	685.3	649.5	617.6	589.5	567.1
25°	865.9	835.4	807.9	776.6	743.3	708.6	670.7	632.0	598.7	569.4	544.1
27.5°	857.8	821.4	787.5	756.8	722.7	691.4	653.8	613.3	579.2	548.4	522.3
30°	844.9	806.5	765.4	731.8	698.8	666.1	631.7	594.9	557.6	526.3	500.2
32.5°	833.7	785.2	740.7	702.9	669.8	641.1	608.1	572.8	536.4	506.5	478.4
35°	821.4	763.4	716.9	672.4	639.4	608.1	582.0	550.2	514.0	482.4	457.2
37.5°	806.7	741.0	687.6	642.3	608.1	576.0	552.5	524.1	491.3	460.1	435.1
40°	790.4	718.1	656.6	609.9	573.1	541.0	521.2	495.9	468.1	437.1	413.8
42.5°	769.7	693.7	628.5	577.4	536.7	507.7	487.9	466.9	441.4	414.4	389.2
45°	743.6	663.2	594.9	541.0	500.8	472.7	452.0	436.5	416.1	390.9	367.1
47.5°	711.7	631.4	560.5	504.5	465.8	438.8	419.6	404.1	388.6	366.8	344.1
50°	669.6	594.9	526.9	469.8	428.8	402.7	385.4	373.1	359.0	341.2	320.6
52.5°	623.1	553.9	487.3	433.9	394.3	368.2	350.4	340.1	329.5	314.8	297.0
55°	569.1	512.9	449.4	397.2	358.5	332.6	318.6	308.5	299.6	288.4	273.5
57.5°	512.0	462.6	407.5	359.3	322.9	298.5	286.1	277.8	270.3	262.3	250.0
60°	452.0	417.0	364.8	320.6	288.7	268.6	256.9	249.1	242.2	235.6	226.4
62.5°	389.5	360.5	321.4	283.8	255.4	236.5	227.9	221.3	214.1	208.4	201.8
65°	326.0	309.4	282.4	247.1	221.0	205.5	197.2	191.7	188.3	181.7	176.5
67.5°	268.3	259.2	236.2	212.4	192.3	178.2	170.5	166.5	162.7	159.6	153.8
70°	213.5	206.9	193.7	176.8	161.0	149.0	143.2	142.1	136.9	133.7	130.9
72.5°	162.7	161.0	150.1	142.6	133.7	124.3	120.0	117.7	114.2	111.4	110.2
75°	115.7	118.2	114.8	111.1	106.8	99.0	95.3	94.1	91.0	90.1	88.7
77.5°	78.9	82.7	83.8	82.1	80.1	77.5	74.9	73.8	70.6	70.0	69.2
80°	49.7	55.1	57.1	56.8	56.0	56.3	53.1	52.8	51.4	50.5	51.4
82.5°	30.1	33.0	36.7	37.6	36.4	37.0	36.2	35.0	35.0	35.6	34.4
85°	16.4	16.6	18.4	19.5	21.0	22.1	21.0	21.2	21.0	21.0	20.1
87.5°	7.2	7.5	7.5	7.2	7.7	8.3	9.5	10.0	9.8	8.9	7.7
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°	723.8	723.8	723.8	723.8	723.8	723.8	723.8	723.8	723.8	723.8	723.8
2.5°	708.9	706.9	703.4	700.6	694.0	689.4	688.8	689.1	688.5	687.9	687.6
5°	691.7	685.1	678.7	673.3	665.8	658.4	654.9	653.5	652.9	649.8	651.5
7.5°	673.3	663.2	655.8	645.5	636.6	630.2	624.2	621.3	620.8	616.5	615.3
10°	653.8	641.7	630.5	620.2	611.3	602.4	595.2	592.6	589.2	585.8	580.6
12.5°	634.5	619.6	607.3	595.8	583.7	573.7	568.0	564.2	559.9	556.8	555.0
15°	611.6	599.0	583.7	571.4	559.1	550.2	542.4	535.5	531.5	528.9	521.8
17.5°	590.9	574.3	559.9	548.2	534.7	524.6	516.6	510.9	504.0	498.8	494.2
20°	568.8	551.6	538.4	524.3	510.6	498.2	488.2	483.6	478.7	473.8	471.2
22.5°	545.0	530.1	515.2	500.5	485.9	472.7	466.4	459.8	455.5	450.6	447.1
25°	524.3	508.0	493.1	476.7	460.6	452.9	444.3	437.7	434.2	429.3	425.6
27.5°	502.2	486.5	468.7	451.7	442.3	429.1	423.3	418.2	413.6	408.7	406.1
30°	481.6	463.2	445.4	432.2	419.9	410.4	405.0	398.6	392.3	390.0	386.6
32.5°	459.8	440.0	424.5	411.3	400.9	389.5	384.3	379.1	373.1	370.2	367.1
35°	437.1	417.9	402.7	390.6	380.0	371.4	365.6	360.2	356.4	352.1	349.8
37.5°	413.3	396.6	382.0	369.9	360.2	353.3	346.1	341.8	336.6	332.6	330.9
40°	390.6	375.7	361.6	350.4	341.5	333.2	326.9	321.4	318.3	314.8	312.0
42.5°	370.2	354.7	342.7	330.9	322.9	314.8	308.5	304.5	299.0	297.6	293.6
45°	348.4	334.1	322.0	311.1	302.8	296.2	288.7	283.8	280.4	277.0	275.5
47.5°	326.3	313.1	301.9	291.9	283.3	275.8	270.1	264.9	261.2	258.0	256.3
50°	304.8	293.3	282.1	272.4	263.5	258.0	251.1	245.4	242.5	239.1	237.1
52.5°	282.1	272.6	260.6	252.3	243.9	236.8	229.9	226.2	223.3	220.4	219.0
55°	260.9	250.8	240.5	231.6	223.6	216.1	210.7	207.8	204.1	202.3	202.0
57.5°	239.1	228.7	220.1	212.1	202.9	197.2	192.3	188.8	185.7	184.3	184.3
60°	215.2	206.9	198.9	190.0	183.4	176.8	171.6	169.3	166.2	165.6	163.6
62.5°	193.4	185.7	177.9	169.6	163.6	157.0	153.3	150.1	148.4	146.1	143.8
65°	170.8	163.9	156.4	149.2	144.4	137.2	133.7	130.0	128.0	125.4	122.5
67.5°	149.0	142.3	135.5	128.9	124.8	118.0	115.7	111.1	109.6	106.8	104.2
70°	126.0	121.4	115.9	109.3	105.9	100.4	98.2	93.8	91.6	89.8	88.4
72.5°	106.2	101.9	95.6	91.3	87.0	83.5	79.8	77.8	75.8	74.3	74.0
75°	86.7	81.2	77.5	73.5	70.6	67.2	65.4	64.0	63.1	62.3	61.4
77.5°	66.3	64.0	60.3	56.3	54.0	52.5	51.4	50.8	49.9	49.7	48.8
80°	49.4	46.2	43.9	42.5	40.8	39.6	38.7	36.7	35.6	35.0	34.4
82.5°	32.7	31.9	30.1	28.7	27.3	27.0	26.1	25.5	25.3	25.3	25.0
85°	19.8	17.5	17.5	17.2	17.2	16.9	16.4	16.4	15.8	16.6	16.6
87.5°	8.0	8.0	7.5	7.5	7.7	7.2	6.9	6.9	6.9	6.6	6.9
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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CATALOG NUMBER: S125RDR-H610D935-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	723.8	723.8	723.8	723.8
2.5°	687.6	686.2	686.5	684.8
5°	648.3	647.5	644.6	642.3
7.5°	612.4	608.7	608.4	606.1
10°	578.9	575.4	573.7	574.0
12.5°	549.6	545.9	545.9	543.6
15°	518.3	514.6	515.2	514.9
17.5°	492.5	489.9	487.9	486.2
20°	467.2	464.1	462.9	461.5
22.5°	444.0	441.7	442.0	442.0
25°	421.9	422.2	419.6	419.0
27.5°	402.4	401.8	401.2	400.1
30°	384.0	381.7	381.1	380.0
32.5°	365.1	364.8	362.5	363.3
35°	345.8	345.0	344.4	343.8
37.5°	328.0	326.3	326.0	325.5
40°	310.0	309.4	306.8	308.2
42.5°	290.4	289.3	289.3	289.3
45°	274.1	270.9	270.9	269.8
47.5°	255.7	254.6	254.0	252.0
50°	237.6	235.9	235.3	235.3
52.5°	219.0	218.7	219.3	218.1
55°	202.6	202.9	202.6	202.0
57.5°	184.8	183.4	183.4	183.7
60°	163.6	163.6	164.2	163.0
62.5°	143.2	142.6	140.6	140.1
65°	122.3	120.0	119.7	120.0
67.5°	103.6	102.7	101.3	101.6
70°	87.5	87.2	85.8	85.0
72.5°	73.2	73.2	72.3	72.3
75°	61.1	60.6	60.3	60.8
77.5°	47.1	45.6	46.2	45.3
80°	34.2	34.7	34.2	33.9
82.5°	25.3	24.7	25.0	24.7
85°	16.1	15.5	15.8	15.5
87.5°	6.6	6.9	6.9	6.3
90°	0.0	0.0	0.0	0.0

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