

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: P333385-935

Luminaire Tested: **S125DIW-S610D1050U935-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333385-935  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-11,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125DIW-S610D1050U935-4F0-1E-UDD-D1  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 610 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 1050 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5197.4 lumens  
Efficiency: N/A  
Efficacy: 115.0 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34  
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.08')  
CIE Type: Semi-Indirect

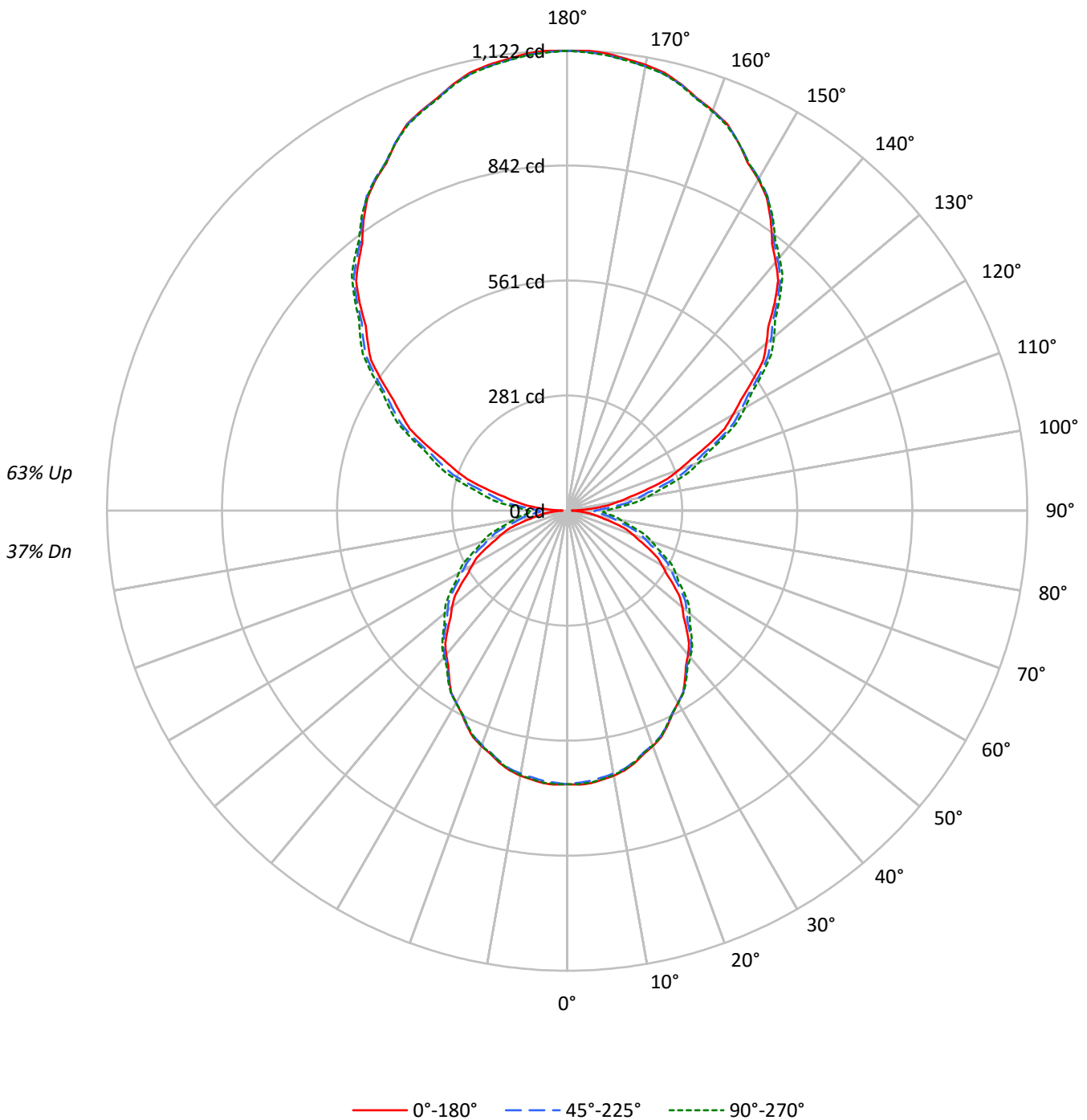
Input Watts (W): 45.2  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	104	104	104	104	94	94	94	94	76	76	76	60	60	60	45	45	45	37
1	94	90	86	82	85	82	78	75	66	64	61	52	50	49	38	37	36	30
2	86	78	72	67	77	71	66	61	57	54	50	45	42	40	33	32	30	25
3	78	68	61	55	70	62	56	51	50	46	42	40	36	34	29	27	26	21
4	71	60	53	46	64	55	48	43	45	40	36	35	32	29	26	24	22	18
5	65	54	46	40	59	49	42	37	40	35	31	31	28	25	24	21	19	15
6	60	48	40	34	54	44	37	32	36	30	26	28	24	21	21	19	17	13
7	55	43	35	30	50	39	32	28	32	27	23	26	22	19	19	17	15	12
8	51	39	31	26	46	36	29	24	29	24	20	23	20	17	18	15	13	11
9	48	36	28	23	43	33	26	22	27	22	18	22	18	15	16	14	12	9
10	44	33	25	21	40	30	23	19	25	20	16	20	16	13	15	13	11	9

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

	0°	45°	90°
0°	4310	4310	4310
5°	4318	4229	4243
10°	4288	4154	4148
15°	4236	4064	4027
20°	4168	3952	3906
25°	4086	3833	3757
30°	3987	3701	3622
35°	3894	3580	3497
40°	3800	3452	3372
45°	3693	3344	3261
50°	3592	3225	3163
55°	3469	3114	3048
60°	3336	2986	2931
65°	3196	2854	2799
70°	3036	2672	2663
75°	2788	2496	2496
80°	2461	2284	2314
85°	2155	2142	2255



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	63.1	1.2
10°-20°	179.1	3.4
20°-30°	266.4	5.1
30°-40°	315.5	6.1
40°-50°	326.2	6.3
50°-60°	300.5	5.8
60°-70°	242.9	4.7
70°-80°	162.7	3.1
80°-90°	86.8	1.7
90°-100°	122.4	2.4
100°-110°	256.6	4.9
110°-120°	399.0	7.7
120°-130°	507.5	9.8
130°-140°	559.6	10.8
140°-150°	544.0	10.5
150°-160°	455.9	8.8
160°-170°	303.0	5.8
170°-180°	106.1	2.0
0°-30°	508.6	9.8
0°-40°	824.1	15.9
0°-60°	1450.8	27.9
0°-90°	1943.3	37.4
90°-120°	778.0	15.0
90°-150°	2389.1	46.0
90°-180°	3254.0	62.6
0°-180°	5197.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	667	667	667	667	667	
5°	667	666	661	666	666	63
15°	637	638	633	637	635	179
25°	579	581	577	579	576	266
35°	501	505	504	506	506	313
45°	413	420	423	428	428	318
55°	317	328	338	345	348	284
65°	218	234	249	259	262	217
75°	120	138	158	171	175	128
85°	36	58	80	94	100	38
90°	11	39	68	86	94	10
95°	65	85	115	135	142	67
105°	205	220	244	262	270	219
115°	380	389	407	417	421	376
125°	551	556	570	578	581	493
135°	715	720	725	733	733	551
145°	865	868	871	874	874	540
155°	989	989	990	993	989	455
165°	1076	1074	1075	1078	1073	303
175°	1118	1115	1115	1120	1114	106
180°	1121	1121	1121	1121	1121	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	667.3	667.3	667.3	667.3	667.3	667.3	667.3	667.3	667.3	667.3	667.3
2.5°	668.8	668.6	668.4	668.1	667.9	667.4	666.6	665.7	665.0	664.1	665.0
5°	667.3	666.9	666.7	666.4	666.1	665.5	664.4	663.4	662.4	661.3	662.5
7.5°	661.3	661.2	661.2	661.0	660.9	660.3	659.3	658.2	657.2	656.2	657.1
10°	656.2	656.2	656.2	656.2	656.2	655.6	654.4	653.2	652.0	650.9	651.9
12.5°	648.8	648.9	649.0	649.2	649.3	648.8	647.9	647.0	646.1	645.1	645.9
15°	637.1	637.3	637.5	637.6	637.7	637.3	636.3	635.2	634.3	633.3	634.1
17.5°	622.0	622.2	622.6	622.8	623.2	622.8	621.8	620.8	619.7	618.7	619.4
20°	611.0	611.3	611.6	611.9	612.2	611.8	610.8	609.8	608.7	607.7	608.1
22.5°	598.5	599.0	599.5	600.0	600.5	600.2	599.1	598.0	596.8	595.7	596.2
25°	578.9	579.4	579.8	580.2	580.7	580.5	579.6	578.8	577.8	577.0	577.6
27.5°	557.2	557.8	558.5	559.1	559.8	559.6	558.6	557.7	556.6	555.7	556.0
30°	541.0	541.9	542.8	543.6	544.5	544.5	543.6	542.8	541.9	541.0	541.3
32.5°	526.3	527.1	527.9	528.7	529.3	529.4	528.8	528.1	527.5	526.8	527.2
35°	501.1	502.1	503.2	504.1	505.1	505.5	505.1	504.5	504.1	503.7	504.1
37.5°	475.9	476.8	477.7	478.6	479.6	479.9	479.8	479.7	479.5	479.4	479.9
40°	458.6	459.8	460.9	462.1	463.2	463.7	463.6	463.5	463.3	463.1	463.7
42.5°	439.7	441.3	442.7	444.3	445.8	446.7	447.0	447.4	447.6	448.0	448.7
45°	412.8	414.4	415.9	417.6	419.2	420.3	421.1	421.8	422.5	423.3	424.3
47.5°	385.2	386.7	388.1	389.6	391.2	392.4	393.7	394.9	396.2	397.4	399.0
50°	366.4	367.9	369.5	371.2	372.7	374.4	375.9	377.5	379.1	380.7	382.4
52.5°	346.5	348.4	350.3	352.3	354.2	356.2	358.2	360.1	362.1	363.9	365.7
55°	317.3	319.6	321.9	324.3	326.6	328.9	331.2	333.6	335.9	338.2	339.8
57.5°	287.5	290.2	293.0	295.8	298.6	301.4	304.0	306.7	309.4	312.0	313.8
60°	267.6	270.4	273.4	276.3	279.2	282.1	285.0	287.9	290.8	293.7	295.9
62.5°	248.2	251.1	254.0	256.9	259.8	262.9	266.0	269.1	272.2	275.4	277.8
65°	218.5	221.9	225.2	228.5	231.9	235.3	238.8	242.3	245.7	249.3	251.4
67.5°	190.5	193.7	196.9	200.2	203.4	206.8	210.3	213.9	217.4	221.0	223.6
70°	170.0	173.4	176.8	180.1	183.5	187.0	190.8	194.6	198.4	202.2	204.9
72.5°	150.2	153.7	157.1	160.6	164.0	167.8	171.9	176.1	180.2	184.3	187.4
75°	120.4	124.2	127.9	131.7	135.5	139.7	144.4	149.0	153.7	158.3	161.2
77.5°	91.7	96.1	100.5	104.8	109.2	113.6	118.0	122.5	127.0	131.5	134.7
80°	74.0	78.3	82.7	87.0	91.4	96.0	101.0	105.9	110.8	115.8	119.0
82.5°	57.7	62.3	66.9	71.5	76.1	80.9	85.9	91.0	96.1	101.2	104.2
85°	36.0	40.8	45.5	50.4	55.2	60.1	65.2	70.3	75.3	80.5	83.7
87.5°	20.6	25.6	30.5	35.5	40.5	45.5	50.7	56.0	61.1	66.4	69.9
90°	11.4	17.6	23.8	30.0	36.2	42.4	48.7	55.0	61.3	67.6	71.9
92.5°	30.6	35.9	41.3	46.7	52.1	58.1	64.8	71.6	78.4	85.1	89.5
95°	65.2	69.4	73.5	77.7	81.9	87.4	94.3	101.2	108.1	114.9	119.5
97.5°	101.9	105.5	109.1	112.6	116.1	121.7	129.2	136.6	144.0	151.4	155.8
100°	129.3	132.4	135.4	138.5	141.5	146.6	153.9	161.0	168.2	175.4	180.1
102.5°	158.9	162.4	166.0	169.6	173.2	177.9	183.7	189.5	195.4	201.1	206.0
105°	204.8	208.1	211.4	214.6	218.0	222.4	227.9	233.4	238.9	244.5	248.6
107.5°	255.6	258.6	261.6	264.5	267.4	271.5	276.6	281.6	286.7	291.8	295.2
110°	290.8	293.4	296.2	298.9	301.6	305.3	310.0	314.6	319.3	323.9	327.2



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	327.0	328.9	330.8	332.7	334.6	337.9	342.6	347.3	352.0	356.7	359.6
115°	380.0	381.8	383.5	385.3	387.1	390.1	394.3	398.4	402.6	406.7	409.1
117.5°	433.0	434.0	435.1	436.1	437.1	439.5	443.5	447.4	451.3	455.3	457.9
120°	466.5	468.0	469.3	470.7	472.2	474.6	478.1	481.7	485.3	488.8	491.2
122.5°	502.3	502.8	503.4	503.9	504.5	506.6	510.4	514.1	517.8	521.6	523.7
125°	551.4	552.4	553.4	554.4	555.4	557.5	560.6	563.7	566.8	569.9	571.9
127.5°	603.0	603.6	604.1	604.6	605.1	606.7	609.3	611.9	614.5	617.2	619.1
130°	634.5	635.3	636.1	637.0	637.7	639.4	641.8	644.2	646.6	649.1	650.9
132.5°	665.4	666.9	668.5	670.0	671.6	673.1	674.6	676.1	677.6	679.1	681.0
135°	715.0	715.9	717.0	718.0	719.0	720.1	721.3	722.6	723.8	725.0	726.9
137.5°	761.6	762.6	763.6	764.6	765.6	766.5	767.5	768.4	769.3	770.3	772.2
140°	791.1	792.0	793.0	794.0	795.0	795.8	796.5	797.3	798.0	798.7	800.6
142.5°	821.0	821.7	822.5	823.2	823.9	824.6	825.4	826.1	826.9	827.7	829.2
145°	865.2	865.8	866.5	867.1	867.7	868.3	868.9	869.5	870.1	870.6	871.4
147.5°	905.4	905.9	906.3	906.6	907.1	907.6	908.0	908.4	909.0	909.4	910.1
150°	932.6	932.5	932.2	932.0	931.9	932.1	932.9	933.7	934.4	935.2	935.2
152.5°	954.9	955.2	955.5	955.8	956.1	956.3	956.7	956.9	957.3	957.6	958.0
155°	989.3	989.3	989.3	989.3	989.3	989.4	989.6	989.8	990.0	990.2	991.0
157.5°	1020.0	1019.6	1019.2	1018.7	1018.3	1018.2	1018.4	1018.6	1018.8	1019.0	1019.8
160°	1038.2	1037.6	1037.0	1036.5	1035.9	1035.7	1035.9	1036.0	1036.2	1036.5	1037.2
162.5°	1054.2	1053.8	1053.3	1052.9	1052.5	1052.3	1052.4	1052.4	1052.5	1052.5	1053.4
165°	1075.7	1075.3	1074.9	1074.5	1074.1	1074.0	1074.3	1074.4	1074.6	1074.8	1075.6
167.5°	1093.8	1093.0	1092.3	1091.5	1090.7	1090.4	1090.4	1090.4	1090.4	1090.4	1091.5
170°	1103.6	1102.9	1102.1	1101.3	1100.5	1100.1	1100.1	1100.1	1100.1	1100.1	1101.3
172.5°	1110.6	1109.8	1109.1	1108.3	1107.5	1107.1	1107.1	1107.1	1107.1	1107.1	1108.3
175°	1118.4	1117.7	1116.9	1116.1	1115.3	1114.9	1114.9	1114.9	1114.9	1114.9	1116.1
177.5°	1122.5	1121.8	1121.2	1120.6	1120.0	1119.6	1119.4	1119.3	1119.1	1119.0	1119.9
180°	1121.0	1121.0	1121.0	1121.0	1121.0	1121.0	1121.0	1121.0	1121.0	1121.0	1121.0



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	667.3	667.3	667.3	667.3	667.3	667.3	667.3	667.3
2.5°	665.7	666.6	667.4	667.7	667.6	667.5	667.4	667.3
5°	663.7	664.9	666.0	666.5	666.4	666.2	666.1	666.0
7.5°	658.1	659.2	660.2	660.6	660.5	660.4	660.2	660.0
10°	653.0	653.9	655.0	655.4	655.3	655.1	655.0	654.8
12.5°	646.7	647.5	648.3	648.5	648.1	647.7	647.4	647.0
15°	635.0	635.8	636.7	636.9	636.3	635.7	635.2	634.6
17.5°	620.1	620.7	621.4	621.6	621.2	620.9	620.5	620.2
20°	608.6	609.1	609.5	609.7	609.7	609.7	609.7	609.7
22.5°	596.8	597.4	597.9	598.0	597.6	597.3	596.9	596.6
25°	578.2	578.8	579.3	579.3	578.5	577.8	577.0	576.4
27.5°	556.5	556.9	557.3	557.3	557.1	556.8	556.6	556.3
30°	541.6	541.9	542.2	542.3	542.1	541.9	541.8	541.7
32.5°	527.4	527.7	528.1	528.1	528.0	527.8	527.7	527.5
35°	504.5	505.1	505.5	505.7	505.7	505.7	505.7	505.7
37.5°	480.5	481.1	481.7	482.0	481.9	481.8	481.8	481.7
40°	464.3	464.9	465.5	465.9	466.2	466.5	466.8	467.1
42.5°	449.4	450.0	450.7	451.2	451.3	451.3	451.3	451.4
45°	425.2	426.3	427.3	427.9	428.1	428.2	428.3	428.5
47.5°	400.5	401.9	403.4	404.3	404.7	404.9	405.3	405.6
50°	383.9	385.6	387.1	388.1	388.6	389.0	389.4	389.9
52.5°	367.4	369.1	370.8	371.9	372.2	372.5	372.8	373.2
55°	341.4	343.0	344.6	345.7	346.3	346.9	347.4	348.0
57.5°	315.7	317.5	319.3	320.5	321.0	321.4	321.8	322.3
60°	298.1	300.2	302.5	303.8	304.2	304.6	305.1	305.5
62.5°	280.3	282.7	285.1	286.5	287.1	287.7	288.2	288.8
65°	253.6	255.8	258.0	259.3	259.9	260.5	261.1	261.7
67.5°	226.3	228.9	231.5	233.2	234.0	234.8	235.6	236.3
70°	207.7	210.4	213.2	215.0	215.9	216.7	217.7	218.5
72.5°	190.4	193.3	196.3	198.1	198.8	199.4	200.1	200.7
75°	164.1	167.0	170.0	171.8	172.5	173.2	173.9	174.7
77.5°	137.8	141.1	144.3	146.2	146.7	147.3	147.9	148.5
80°	122.2	125.4	128.5	130.4	131.0	131.6	132.2	132.8
82.5°	107.3	110.4	113.5	115.5	116.6	117.6	118.6	119.7
85°	86.9	90.1	93.2	95.4	96.6	97.7	98.9	100.0
87.5°	73.4	77.0	80.5	82.8	84.0	85.2	86.3	87.4
90°	76.2	80.5	84.9	87.8	89.4	91.0	92.6	94.2
92.5°	94.0	98.6	103.1	106.1	107.5	108.9	110.4	111.8
95°	124.1	128.6	133.1	136.1	137.5	139.0	140.3	141.7
97.5°	160.1	164.5	168.8	171.5	172.8	174.0	175.2	176.4
100°	184.9	189.8	194.5	197.6	198.8	200.1	201.4	202.6
102.5°	210.9	215.7	220.5	223.6	225.1	226.4	227.9	229.3
105°	252.6	256.7	260.8	263.6	265.2	266.8	268.4	270.0
107.5°	298.7	302.1	305.7	307.8	308.7	309.5	310.4	311.3
110°	330.5	333.9	337.3	339.3	340.2	341.0	341.8	342.6





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CATALOG NUMBER: S125DIW-S610D1050U935-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	362.5	365.4	368.3	370.1	370.8	371.5	372.1	372.8
115°	411.6	414.1	416.5	418.0	418.7	419.4	420.0	420.7
117.5°	460.5	463.1	465.8	467.2	467.4	467.6	467.9	468.0
120°	493.7	496.2	498.7	499.9	500.1	500.2	500.2	500.3
122.5°	526.0	528.1	530.4	531.6	531.8	532.1	532.4	532.6
125°	573.8	575.8	577.6	578.9	579.5	580.0	580.5	581.0
127.5°	621.0	623.0	625.0	626.2	626.6	627.1	627.6	628.0
130°	652.7	654.6	656.4	657.5	657.9	658.2	658.6	658.9
132.5°	682.8	684.6	686.5	687.4	687.5	687.5	687.6	687.7
135°	728.8	730.6	732.5	733.5	733.4	733.4	733.3	733.2
137.5°	774.1	776.1	778.1	778.9	778.4	778.1	777.7	777.3
140°	802.7	804.7	806.7	807.4	807.0	806.7	806.2	805.9
142.5°	830.9	832.5	834.1	834.7	834.3	833.9	833.5	833.1
145°	872.1	872.9	873.6	873.9	873.9	873.9	873.9	873.9
147.5°	910.8	911.5	912.2	912.1	910.9	909.9	908.9	907.8
150°	935.2	935.2	935.2	935.1	934.9	934.6	934.4	934.1
152.5°	958.5	959.0	959.4	959.3	958.6	957.9	957.3	956.7
155°	991.8	992.6	993.3	993.2	992.2	991.3	990.3	989.3
157.5°	1020.5	1021.3	1022.1	1021.8	1020.5	1019.3	1018.0	1016.8
160°	1038.0	1038.8	1039.6	1039.4	1038.5	1037.5	1036.6	1035.5
162.5°	1054.4	1055.2	1056.2	1056.1	1055.0	1053.9	1052.7	1051.6
165°	1076.3	1077.1	1077.9	1077.7	1076.6	1075.4	1074.3	1073.1
167.5°	1092.7	1093.8	1095.0	1095.0	1093.8	1092.6	1091.4	1090.2
170°	1102.4	1103.6	1104.7	1104.7	1103.3	1102.0	1100.6	1099.2
172.5°	1109.4	1110.6	1111.7	1111.7	1110.5	1109.3	1108.1	1106.9
175°	1117.2	1118.4	1119.6	1119.5	1118.2	1116.8	1115.4	1114.0
177.5°	1120.8	1121.8	1122.7	1122.6	1121.5	1120.4	1119.4	1118.3
180°	1121.0	1121.0	1121.0	1121.0	1121.0	1121.0	1121.0	1121.0

(END OF REPORT)