

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

Luminaire Tested: **S125DIW-S610D1050U835-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333385  
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-S610D1050U835-4F0-1E-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: 6036.5 lumens  
Efficiency: N/A  
Efficacy: 133.6 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

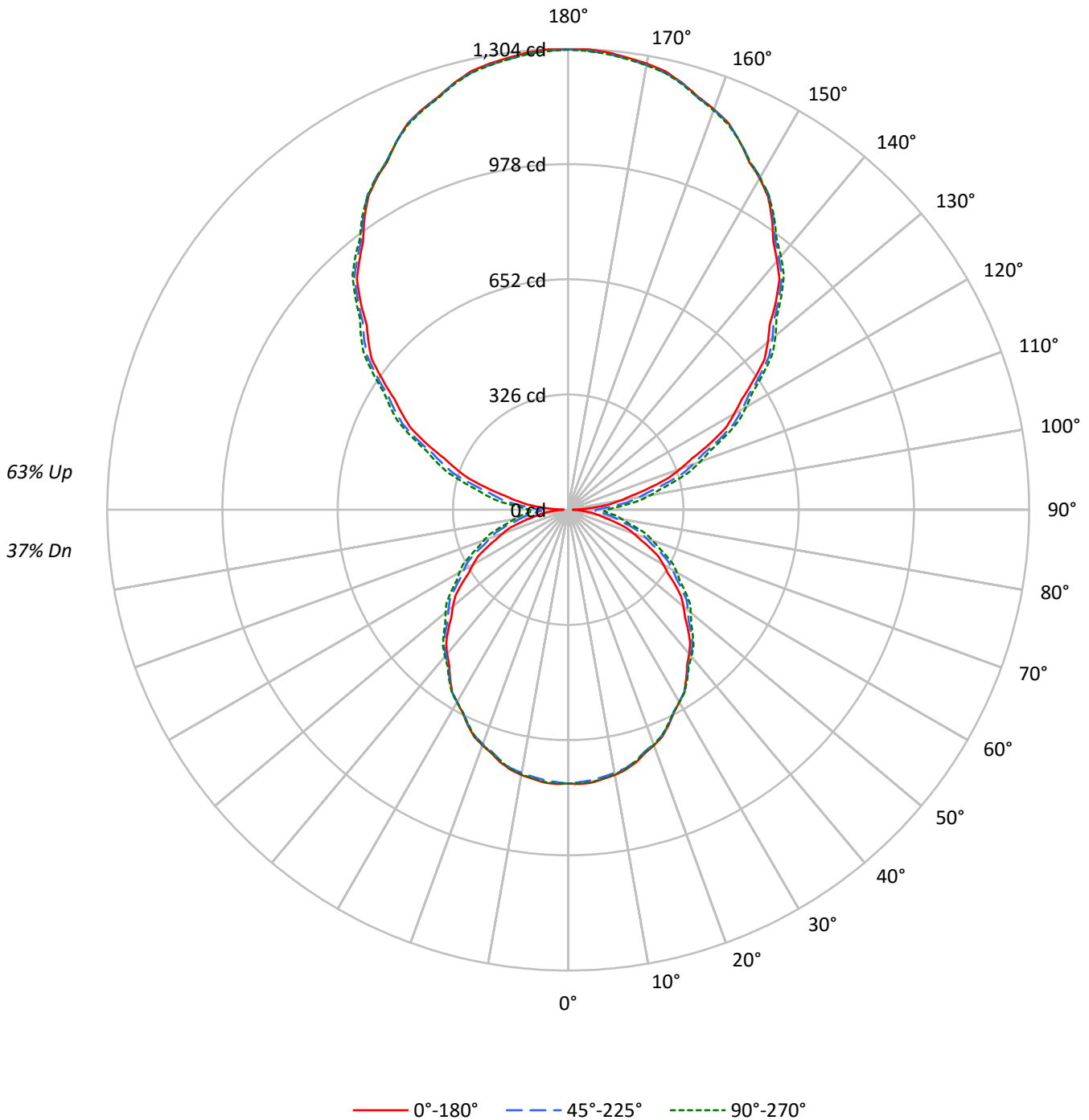
Input Watts (W): 45.2  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	5005	5005	5005
5°	5015	4912	4928
10°	4980	4825	4817
15°	4920	4720	4677
20°	4840	4590	4536
25°	4745	4451	4363
30°	4630	4298	4206
35°	4523	4158	4062
40°	4413	4010	3916
45°	4289	3884	3788
50°	4172	3746	3674
55°	4029	3616	3540
60°	3875	3468	3404
65°	3713	3314	3250
70°	3527	3103	3093
75°	3237	2899	2899
80°	2857	2653	2687
85°	2502	2488	2620



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	73.3	1.2
10°-20°	208.0	3.4
20°-30°	309.4	5.1
30°-40°	366.5	6.1
40°-50°	378.9	6.3
50°-60°	349.0	5.8
60°-70°	282.1	4.7
70°-80°	189.0	3.1
80°-90°	100.8	1.7
90°-100°	142.2	2.4
100°-110°	298.1	4.9
110°-120°	463.4	7.7
120°-130°	589.5	9.8
130°-140°	650.0	10.8
140°-150°	631.8	10.5
150°-160°	529.5	8.8
160°-170°	352.0	5.8
170°-180°	123.2	2.0
0°-30°	590.7	9.8
0°-40°	957.1	15.9
0°-60°	1685.1	27.9
0°-90°	2257.0	37.4
90°-120°	903.6	15.0
90°-150°	2774.8	46.0
90°-180°	3779.0	62.6
0°-180°	6036.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	775	775	775	775	775	
5°	775	773	768	774	774	73
15°	740	740	736	740	737	208
25°	672	674	670	673	669	309
35°	582	587	585	587	587	364
45°	479	488	492	497	498	370
55°	368	381	393	401	404	329
65°	254	271	290	300	304	252
75°	140	160	184	198	203	148
85°	42	67	94	110	116	45
90°	13	46	78	100	109	12
95°	76	98	134	156	165	78
105°	238	256	284	305	314	254
115°	441	451	472	485	489	436
125°	640	646	662	672	675	573
135°	830	836	842	851	852	640
145°	1005	1008	1011	1015	1015	628
155°	1149	1149	1150	1154	1149	529
165°	1249	1247	1248	1252	1246	352
175°	1299	1295	1295	1300	1294	123
180°	1302	1302	1302	1302	1302	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	775.0	775.0	775.0	775.0	775.0	775.0	775.0	775.0	775.0	775.0	775.0
2.5°	776.8	776.5	776.3	776.0	775.7	775.1	774.2	773.2	772.3	771.3	772.3
5°	775.0	774.6	774.3	774.0	773.6	772.9	771.7	770.5	769.3	768.1	769.5
7.5°	768.1	768.0	767.9	767.7	767.6	766.9	765.7	764.5	763.3	762.1	763.2
10°	762.1	762.1	762.1	762.1	762.1	761.4	760.0	758.7	757.3	756.0	757.2
12.5°	753.6	753.7	753.8	754.0	754.1	753.6	752.5	751.5	750.4	749.3	750.2
15°	740.0	740.2	740.4	740.5	740.7	740.2	739.0	737.8	736.7	735.5	736.5
17.5°	722.4	722.7	723.1	723.4	723.8	723.3	722.2	721.0	719.8	718.6	719.4
20°	709.6	710.0	710.3	710.7	711.0	710.6	709.4	708.2	707.0	705.8	706.3
22.5°	695.1	695.7	696.3	696.9	697.5	697.1	695.8	694.5	693.2	691.9	692.5
25°	672.4	672.9	673.4	673.9	674.4	674.2	673.2	672.2	671.1	670.1	670.8
27.5°	647.2	647.9	648.7	649.4	650.2	650.0	648.8	647.7	646.5	645.4	645.8
30°	628.3	629.4	630.4	631.4	632.4	632.4	631.4	630.4	629.4	628.3	628.7
32.5°	611.3	612.2	613.1	614.0	614.8	614.9	614.2	613.4	612.7	611.9	612.3
35°	582.0	583.2	584.4	585.5	586.7	587.1	586.6	586.0	585.5	585.0	585.5
37.5°	552.7	553.8	554.8	555.9	557.0	557.4	557.3	557.1	556.9	556.8	557.4
40°	532.6	534.0	535.3	536.7	538.0	538.6	538.4	538.3	538.1	537.9	538.6
42.5°	510.7	512.5	514.2	516.0	517.8	518.8	519.2	519.6	519.9	520.3	521.1
45°	479.4	481.3	483.1	485.0	486.9	488.2	489.1	489.9	490.7	491.6	492.8
47.5°	447.4	449.1	450.8	452.5	454.3	455.8	457.3	458.7	460.2	461.6	463.4
50°	425.5	427.3	429.2	431.1	432.9	434.8	436.6	438.5	440.3	442.2	444.1
52.5°	402.4	404.6	406.9	409.2	411.4	413.7	416.0	418.2	420.5	422.7	424.7
55°	368.5	371.2	373.9	376.6	379.3	382.0	384.7	387.4	390.1	392.8	394.7
57.5°	333.9	337.1	340.3	343.6	346.8	350.0	353.1	356.2	359.3	362.4	364.5
60°	310.8	314.1	317.5	320.9	324.3	327.6	331.0	334.4	337.8	341.1	343.7
62.5°	288.3	291.6	295.0	298.4	301.8	305.3	308.9	312.6	316.2	319.9	322.7
65°	253.8	257.7	261.5	265.4	269.3	273.3	277.3	281.4	285.4	289.5	292.0
67.5°	221.3	225.0	228.7	232.5	236.2	240.2	244.3	248.4	252.5	256.7	259.7
70°	197.5	201.4	205.3	209.2	213.1	217.2	221.6	226.0	230.4	234.8	238.0
72.5°	174.4	178.5	182.5	186.5	190.5	194.9	199.7	204.5	209.3	214.1	217.6
75°	139.8	144.2	148.6	153.0	157.4	162.3	167.7	173.1	178.5	183.9	187.2
77.5°	106.5	111.6	116.7	121.7	126.8	131.9	137.1	142.3	147.5	152.7	156.4
80°	85.9	90.9	96.0	101.1	106.1	111.5	117.3	123.0	128.7	134.5	138.2
82.5°	67.0	72.3	77.7	83.0	88.4	94.0	99.8	105.7	111.6	117.5	121.0
85°	41.8	47.4	52.9	58.5	64.1	69.8	75.7	81.6	87.5	93.5	97.2
87.5°	23.9	29.7	35.4	41.2	47.0	52.9	58.9	65.0	71.0	77.1	81.2
90°	13.2	20.4	27.6	34.8	42.0	49.2	56.6	63.9	71.2	78.5	83.5
92.5°	35.5	41.7	48.0	54.2	60.5	67.5	75.3	83.2	91.0	98.8	104.0
95°	75.7	80.6	85.4	90.3	95.1	101.5	109.5	117.5	125.5	133.5	138.8
97.5°	118.4	122.5	126.7	130.8	134.9	141.3	150.0	158.6	167.2	175.9	180.9
100°	150.2	153.8	157.3	160.9	164.4	170.3	178.7	187.0	195.3	203.7	209.2
102.5°	184.5	188.6	192.8	197.0	201.2	206.6	213.4	220.1	226.9	233.6	239.3
105°	237.9	241.7	245.5	249.3	253.2	258.3	264.7	271.1	277.5	284.0	288.7
107.5°	296.9	300.4	303.8	307.2	310.6	315.3	321.2	327.1	333.0	338.9	342.9
110°	337.7	340.8	344.0	347.1	350.3	354.6	360.0	365.4	370.8	376.2	380.0



TEST NUMBER: P333385

CATALOG NUMBER: S125DIW-S610D1050U835-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	379.8	382.0	384.2	386.4	388.6	392.5	397.9	403.4	408.8	414.3	417.7
115°	441.3	443.4	445.4	447.5	449.6	453.1	457.9	462.7	467.6	472.4	475.2
117.5°	502.9	504.1	505.3	506.5	507.7	510.5	515.1	519.6	524.2	528.8	531.8
120°	541.8	543.5	545.1	546.7	548.4	551.2	555.3	559.5	563.6	567.7	570.5
122.5°	583.4	584.0	584.7	585.3	586.0	588.4	592.8	597.1	601.4	605.8	608.3
125°	640.4	641.6	642.7	643.9	645.1	647.5	651.1	654.7	658.3	661.9	664.2
127.5°	700.4	701.0	701.6	702.2	702.8	704.6	707.7	710.7	713.7	716.8	719.1
130°	736.9	737.9	738.8	739.8	740.7	742.6	745.4	748.2	751.0	753.9	756.0
132.5°	772.8	774.6	776.4	778.2	780.0	781.8	783.5	785.3	787.0	788.7	790.9
135°	830.4	831.5	832.7	833.9	835.1	836.4	837.8	839.2	840.6	842.0	844.2
137.5°	884.5	885.7	886.9	888.0	889.2	890.3	891.4	892.5	893.5	894.6	896.9
140°	918.8	919.9	921.0	922.2	923.3	924.3	925.1	926.0	926.8	927.6	929.9
142.5°	953.6	954.4	955.3	956.1	956.9	957.7	958.6	959.5	960.4	961.3	963.1
145°	1004.9	1005.6	1006.4	1007.1	1007.8	1008.5	1009.2	1009.9	1010.6	1011.2	1012.1
147.5°	1051.6	1052.1	1052.6	1053.0	1053.5	1054.1	1054.6	1055.1	1055.7	1056.2	1057.0
150°	1083.2	1083.0	1082.7	1082.5	1082.3	1082.6	1083.5	1084.4	1085.3	1086.2	1086.2
152.5°	1109.1	1109.4	1109.7	1110.1	1110.4	1110.7	1111.1	1111.4	1111.8	1112.2	1112.7
155°	1149.0	1149.0	1149.0	1149.0	1149.0	1149.1	1149.4	1149.6	1149.8	1150.1	1151.0
157.5°	1184.7	1184.2	1183.7	1183.2	1182.7	1182.6	1182.8	1183.0	1183.3	1183.5	1184.4
160°	1205.8	1205.1	1204.4	1203.8	1203.1	1202.9	1203.1	1203.3	1203.5	1203.8	1204.7
162.5°	1224.4	1223.9	1223.4	1222.9	1222.4	1222.2	1222.3	1222.3	1222.4	1222.4	1223.5
165°	1249.4	1248.9	1248.4	1248.0	1247.5	1247.4	1247.7	1247.9	1248.1	1248.3	1249.2
167.5°	1270.4	1269.5	1268.6	1267.7	1266.8	1266.4	1266.4	1266.4	1266.4	1266.4	1267.7
170°	1281.8	1280.9	1280.0	1279.1	1278.2	1277.7	1277.7	1277.7	1277.7	1277.7	1279.1
172.5°	1289.9	1289.0	1288.1	1287.2	1286.3	1285.8	1285.8	1285.8	1285.8	1285.8	1287.2
175°	1299.0	1298.1	1297.2	1296.3	1295.4	1294.9	1294.9	1294.9	1294.9	1294.9	1296.3
177.5°	1303.7	1302.9	1302.2	1301.5	1300.8	1300.3	1300.1	1300.0	1299.8	1299.6	1300.7
180°	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0



TEST NUMBER: P333385

CATALOG NUMBER: S125DIW-S610D1050U835-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	775.0	775.0	775.0	775.0	775.0	775.0	775.0	775.0
2.5°	773.2	774.2	775.1	775.5	775.4	775.3	775.1	775.0
5°	770.8	772.2	773.5	774.1	774.0	773.8	773.6	773.5
7.5°	764.4	765.6	766.8	767.3	767.1	767.0	766.8	766.6
10°	758.4	759.5	760.7	761.2	761.1	760.9	760.7	760.5
12.5°	751.1	752.0	753.0	753.2	752.7	752.3	751.9	751.4
15°	737.5	738.5	739.5	739.7	739.0	738.3	737.7	737.0
17.5°	720.2	720.9	721.7	721.9	721.5	721.1	720.7	720.3
20°	706.9	707.4	707.9	708.1	708.1	708.1	708.1	708.1
22.5°	693.1	693.8	694.4	694.5	694.1	693.7	693.3	692.9
25°	671.5	672.2	672.8	672.8	671.9	671.1	670.2	669.4
27.5°	646.3	646.8	647.3	647.3	647.0	646.7	646.4	646.1
30°	629.0	629.4	629.7	629.8	629.6	629.4	629.3	629.1
32.5°	612.6	612.9	613.3	613.4	613.2	613.0	612.9	612.7
35°	586.0	586.6	587.1	587.3	587.3	587.3	587.3	587.3
37.5°	558.1	558.8	559.5	559.8	559.7	559.6	559.6	559.5
40°	539.3	540.0	540.6	541.1	541.5	541.8	542.2	542.5
42.5°	521.9	522.7	523.5	524.0	524.1	524.1	524.2	524.3
45°	493.9	495.1	496.3	497.0	497.2	497.3	497.5	497.7
47.5°	465.1	466.8	468.5	469.6	470.0	470.3	470.7	471.1
50°	445.9	447.8	449.6	450.8	451.3	451.8	452.3	452.8
52.5°	426.7	428.7	430.7	431.9	432.3	432.6	433.0	433.4
55°	396.5	398.4	400.2	401.5	402.2	402.9	403.5	404.2
57.5°	366.7	368.8	370.9	372.2	372.8	373.3	373.8	374.3
60°	346.2	348.7	351.3	352.8	353.3	353.8	354.3	354.8
62.5°	325.5	328.3	331.1	332.8	333.4	334.1	334.7	335.4
65°	294.5	297.1	299.6	301.2	301.9	302.6	303.2	303.9
67.5°	262.8	265.9	268.9	270.9	271.8	272.7	273.6	274.4
70°	241.2	244.4	247.6	249.7	250.7	251.7	252.8	253.8
72.5°	221.1	224.5	228.0	230.1	230.9	231.6	232.4	233.1
75°	190.6	194.0	197.4	199.5	200.3	201.2	202.0	202.9
77.5°	160.1	163.9	167.6	169.8	170.4	171.1	171.8	172.5
80°	141.9	145.6	149.3	151.5	152.2	152.9	153.6	154.2
82.5°	124.6	128.2	131.8	134.2	135.4	136.6	137.8	139.0
85°	100.9	104.6	108.3	110.8	112.2	113.5	114.9	116.2
87.5°	85.3	89.4	93.5	96.2	97.6	98.9	100.2	101.5
90°	88.5	93.5	98.6	102.0	103.8	105.7	107.6	109.4
92.5°	109.2	114.5	119.7	123.2	124.9	126.5	128.2	129.9
95°	144.1	149.4	154.6	158.1	159.7	161.4	163.0	164.6
97.5°	186.0	191.0	196.0	199.2	200.7	202.1	203.5	204.9
100°	214.8	220.4	225.9	229.5	230.9	232.4	233.9	235.3
102.5°	244.9	250.5	256.1	259.7	261.4	263.0	264.7	266.3
105°	293.4	298.1	302.9	306.2	308.0	309.9	311.7	313.6
107.5°	346.9	350.9	355.0	357.5	358.5	359.5	360.5	361.5
110°	383.9	387.8	391.7	394.1	395.1	396.0	397.0	397.9





TEST NUMBER: P333385

CATALOG NUMBER: S125DIW-S610D1050U835-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	421.0	424.4	427.8	429.9	430.7	431.5	432.2	433.0
115°	478.1	480.9	483.7	485.5	486.3	487.1	487.8	488.6
117.5°	534.9	537.9	541.0	542.6	542.9	543.1	543.4	543.6
120°	573.4	576.3	579.2	580.6	580.8	580.9	581.0	581.1
122.5°	610.9	613.4	616.0	617.4	617.7	618.0	618.3	618.6
125°	666.4	668.7	670.9	672.3	673.0	673.6	674.2	674.8
127.5°	721.3	723.6	725.9	727.3	727.8	728.3	728.9	729.4
130°	758.1	760.3	762.4	763.7	764.1	764.5	764.9	765.3
132.5°	793.0	795.1	797.3	798.4	798.5	798.5	798.6	798.7
135°	846.4	848.6	850.8	851.9	851.8	851.8	851.7	851.6
137.5°	899.1	901.4	903.7	904.6	904.1	903.7	903.2	902.8
140°	932.3	934.6	936.9	937.8	937.3	936.9	936.4	936.0
142.5°	965.0	966.9	968.7	969.4	969.0	968.5	968.1	967.6
145°	1012.9	1013.8	1014.6	1015.0	1015.0	1015.0	1015.0	1015.0
147.5°	1057.8	1058.7	1059.5	1059.3	1058.0	1056.8	1055.6	1054.3
150°	1086.2	1086.2	1086.2	1086.1	1085.8	1085.5	1085.2	1084.9
152.5°	1113.2	1113.8	1114.3	1114.2	1113.4	1112.6	1111.9	1111.1
155°	1151.9	1152.8	1153.7	1153.5	1152.4	1151.3	1150.2	1149.0
157.5°	1185.3	1186.2	1187.1	1186.8	1185.3	1183.8	1182.3	1180.9
160°	1205.6	1206.5	1207.4	1207.2	1206.1	1205.0	1203.9	1202.7
162.5°	1224.6	1225.6	1226.7	1226.6	1225.3	1224.0	1222.7	1221.4
165°	1250.1	1251.0	1251.9	1251.7	1250.4	1249.0	1247.7	1246.3
167.5°	1269.1	1270.4	1271.8	1271.8	1270.4	1269.0	1267.6	1266.2
170°	1280.4	1281.8	1283.1	1283.0	1281.4	1279.9	1278.3	1276.7
172.5°	1288.5	1289.9	1291.2	1291.2	1289.8	1288.4	1287.0	1285.6
175°	1297.6	1299.0	1300.4	1300.2	1298.7	1297.1	1295.5	1293.9
177.5°	1301.8	1302.9	1303.9	1303.8	1302.6	1301.3	1300.1	1298.8
180°	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0

(END OF REPORT)