

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: P333387-840

Luminaire Tested: **S125DIW-S610D1050U840-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333387-840  
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-S610D1050U840-4F0-1E-UDD-F1  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 610 LUMENS PER FOOT, FLUSH 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: 6195.7 lumens  
Efficiency: N/A  
Efficacy: 137.1 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31  
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')  
CIE Type: General Diffuse

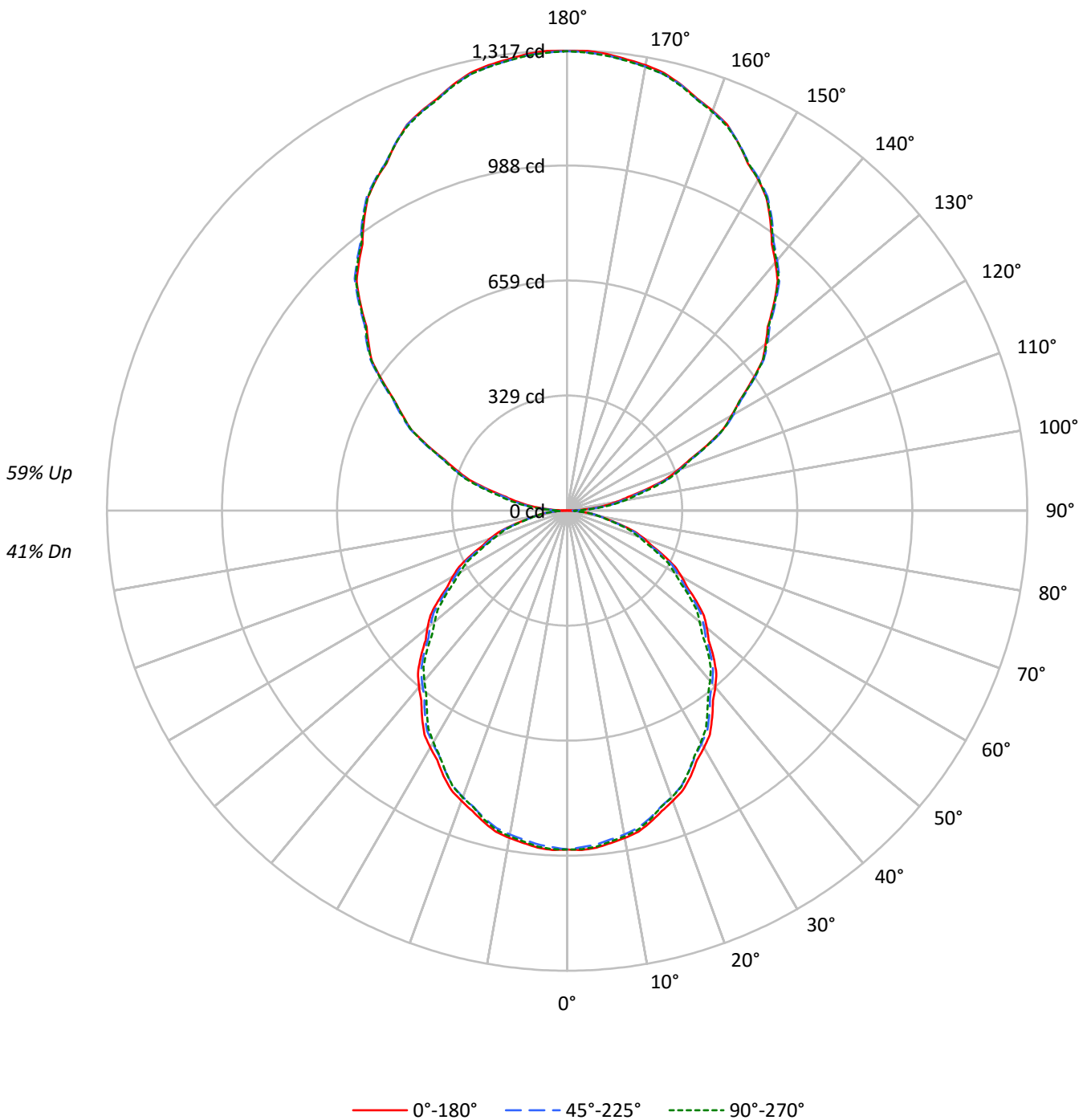
Input Watts (W): 45.2  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	105	105	105	105	96	96	96	96	78	78	78	62	62	62	48	48	48	41
1	96	91	88	84	87	83	80	77	68	66	64	55	53	52	42	41	40	34
2	87	80	74	69	79	73	68	63	60	56	53	48	45	43	37	35	34	29
3	79	70	63	57	72	64	58	53	53	48	44	42	39	36	33	31	29	24
4	73	62	54	48	66	57	50	45	47	42	38	38	34	31	29	27	25	21
5	67	55	47	41	60	51	43	38	42	37	33	34	30	27	26	24	21	18
6	61	49	41	36	56	45	38	33	38	32	28	31	27	24	24	21	19	16
7	57	44	37	31	51	41	34	29	34	29	25	28	24	21	22	19	17	14
8	52	40	33	27	48	37	30	26	31	26	22	25	21	18	20	17	15	13
9	49	37	29	24	44	34	27	23	28	23	20	23	19	17	18	16	14	11
10	46	34	27	22	42	31	25	20	26	21	18	21	18	15	17	14	12	10

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

	0°	45°	90°
0°	6264	6264	6264
5°	6278	6218	6257
10°	6239	6174	6209
15°	6171	6100	6125
20°	6075	5996	6006
25°	5971	5872	5867
30°	5842	5739	5711
35°	5705	5595	5517
40°	5563	5440	5363
45°	5411	5298	5193
50°	5243	5127	4972
55°	5080	4933	4796
60°	4886	4738	4570
65°	4655	4504	4351
70°	4434	4232	4086
75°	4040	3905	3773
80°	3593	3537	3451
85°	3127	3179	3016



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	91.4	1.5
10°-20°	258.3	4.2
20°-30°	381.4	6.2
30°-40°	445.0	7.2
40°-50°	447.0	7.2
50°-60°	392.4	6.3
60°-70°	292.4	4.7
70°-80°	167.2	2.7
80°-90°	51.5	0.8
90°-100°	88.1	1.4
100°-110°	260.1	4.2
110°-120°	440.5	7.1
120°-130°	579.7	9.4
130°-140°	649.6	10.5
140°-150°	636.6	10.3
150°-160°	534.7	8.6
160°-170°	355.4	5.7
170°-180°	124.4	2.0
0°-30°	731.2	11.8
0°-40°	1176.2	19.0
0°-60°	2015.6	32.5
0°-90°	2526.6	40.8
90°-120°	788.6	12.7
90°-150°	2654.6	42.8
90°-180°	3669.0	59.2
0°-180°	6195.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	970	970	970	970	970	
5°	968	966	959	966	965	92
15°	923	920	912	916	916	260
25°	838	834	824	825	823	385
35°	724	720	710	706	700	452
45°	592	589	580	571	569	456
55°	451	448	438	431	426	403
65°	305	303	295	288	285	302
75°	162	160	156	154	151	173
85°	42	43	43	42	41	47
90°	1	9	16	21	24	6
95°	67	69	79	86	88	71
105°	233	238	245	251	254	249
115°	441	445	447	446	445	436
125°	644	649	651	649	648	576
135°	837	843	844	844	840	645
145°	1014	1018	1021	1021	1018	634
155°	1160	1160	1161	1165	1160	534
165°	1262	1260	1261	1264	1259	356
175°	1312	1308	1308	1313	1307	125
180°	1315	1315	1315	1315	1315	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	969.9	969.9	969.9	969.9	969.9	969.9	969.9	969.9	969.9	969.9	969.9
2.5°	972.3	971.9	971.5	971.1	970.7	969.8	968.5	967.0	965.7	964.3	965.7
5°	968.4	968.0	967.7	967.2	966.9	965.9	964.2	962.5	960.8	959.1	960.7
7.5°	959.4	959.1	958.8	958.4	958.1	956.9	955.0	953.2	951.3	949.5	950.9
10°	951.4	951.1	950.8	950.4	950.1	949.0	947.1	945.2	943.3	941.5	942.8
12.5°	941.6	941.0	940.4	939.8	939.2	938.0	936.2	934.5	932.7	931.0	932.1
15°	923.0	922.5	922.0	921.5	921.0	919.8	918.0	916.0	914.1	912.3	913.1
17.5°	901.7	901.0	900.2	899.5	898.7	897.4	895.4	893.4	891.5	889.6	890.6
20°	883.9	883.5	883.2	882.9	882.5	881.3	879.1	876.9	874.6	872.4	873.6
22.5°	866.1	865.5	864.8	864.2	863.6	862.3	860.2	858.2	856.1	853.9	854.7
25°	837.9	837.0	836.2	835.4	834.5	832.9	830.7	828.5	826.3	824.0	824.5
27.5°	804.9	804.4	803.9	803.3	802.8	801.4	799.1	796.9	794.6	792.3	792.3
30°	783.4	782.8	782.3	781.8	781.3	779.8	777.3	774.7	772.1	769.6	769.2
32.5°	760.0	759.3	758.5	757.7	756.9	755.4	753.2	750.8	748.5	746.3	745.7
35°	723.6	722.9	722.2	721.5	720.8	719.3	716.9	714.5	712.2	709.7	708.9
37.5°	685.6	684.8	684.0	683.1	682.3	680.6	678.4	676.2	673.9	671.7	670.4
40°	659.8	659.0	658.1	657.3	656.4	654.8	652.5	650.1	647.6	645.3	643.8
42.5°	632.3	631.6	630.8	630.1	629.3	627.8	625.4	623.1	620.7	618.2	616.9
45°	592.4	591.7	591.0	590.3	589.7	588.2	586.2	584.2	582.1	580.1	578.0
47.5°	549.4	549.4	549.5	549.5	549.5	548.3	545.8	543.4	541.0	538.5	536.4
50°	521.8	521.2	520.7	520.2	519.7	518.5	516.3	514.3	512.3	510.3	508.1
52.5°	493.5	493.1	492.8	492.4	492.0	490.7	488.6	486.4	484.2	482.0	480.1
55°	451.2	450.6	450.1	449.6	449.1	447.7	445.2	442.9	440.5	438.1	436.6
57.5°	406.5	406.3	406.0	405.7	405.5	404.2	402.2	400.2	398.2	396.3	394.3
60°	378.3	377.6	376.9	376.2	375.6	374.3	372.4	370.5	368.6	366.8	365.1
62.5°	348.8	348.3	347.7	347.2	346.6	345.6	344.0	342.3	340.7	339.1	337.3
65°	304.6	304.3	304.0	303.6	303.3	302.2	300.2	298.4	296.5	294.7	293.1
67.5°	261.8	261.1	260.3	259.6	258.9	257.9	256.5	255.1	253.7	252.3	251.0
70°	234.8	234.0	233.1	232.3	231.4	230.1	228.6	227.1	225.6	224.1	223.0
72.5°	205.3	204.7	204.2	203.6	203.0	202.2	201.3	200.3	199.2	198.2	197.1
75°	161.9	161.6	161.2	160.9	160.6	160.0	159.1	158.2	157.3	156.5	156.0
77.5°	121.9	121.7	121.6	121.4	121.3	121.0	120.5	120.1	119.6	119.1	118.8
80°	96.6	96.6	96.6	96.6	96.6	96.5	96.1	95.8	95.5	95.1	94.9
82.5°	74.6	74.3	74.0	73.7	73.5	73.3	73.2	73.2	73.1	73.0	72.7
85°	42.2	42.4	42.5	42.7	42.9	42.9	42.9	42.9	42.9	42.9	42.8
87.5°	16.8	17.2	17.5	17.9	18.3	18.5	18.7	18.9	19.1	19.2	19.5
90°	1.0	2.8	4.6	6.5	8.3	10.0	11.6	13.2	14.7	16.4	17.5
92.5°	24.7	26.1	27.3	28.6	29.9	31.5	33.4	35.3	37.4	39.3	40.8
95°	66.6	67.0	67.5	67.9	68.4	69.7	72.0	74.2	76.5	78.8	80.4
97.5°	110.5	110.7	110.9	111.1	111.3	112.9	116.0	119.2	122.3	125.4	126.9
100°	143.3	143.3	143.3	143.3	143.3	144.7	147.6	150.7	153.6	156.5	158.6
102.5°	178.4	179.4	180.3	181.2	182.1	183.3	184.8	186.3	187.8	189.3	191.6
105°	233.3	234.4	235.6	236.7	237.8	239.1	240.4	241.9	243.2	244.6	245.9
107.5°	293.9	295.0	296.2	297.3	298.4	299.5	300.5	301.6	302.7	303.7	304.4
110°	335.6	336.8	337.9	339.0	340.2	341.1	341.7	342.4	343.2	343.9	344.5



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	378.2	378.8	379.4	380.0	380.5	381.3	382.1	383.0	383.8	384.8	385.1
115°	441.0	441.9	442.8	443.7	444.6	445.4	445.8	446.3	446.7	447.2	447.0
117.5°	504.0	504.4	504.8	505.2	505.7	506.1	506.5	507.0	507.4	507.8	508.0
120°	543.3	544.5	545.6	546.7	547.9	548.6	548.8	549.1	549.3	549.5	549.5
122.5°	585.9	586.3	586.7	587.1	587.5	588.0	588.7	589.3	589.9	590.5	590.3
125°	643.6	645.0	646.3	647.7	649.0	649.8	650.2	650.4	650.6	650.8	650.4
127.5°	705.0	705.8	706.6	707.3	708.1	708.6	708.9	709.2	709.4	709.7	709.5
130°	741.8	743.0	744.2	745.3	746.4	747.2	747.7	748.1	748.6	749.0	748.8
132.5°	778.7	780.5	782.4	784.3	786.2	787.1	787.0	786.9	786.8	786.7	786.5
135°	837.0	838.4	839.7	841.1	842.5	843.2	843.5	843.7	843.9	844.1	844.1
137.5°	891.9	893.2	894.5	895.9	897.2	898.1	898.6	899.1	899.6	900.1	900.3
140°	927.1	928.2	929.4	930.5	931.6	932.5	933.2	933.9	934.5	935.2	935.7
142.5°	962.3	963.2	964.2	965.1	966.1	967.0	967.9	968.8	969.6	970.5	970.7
145°	1014.0	1014.9	1015.8	1016.7	1017.6	1018.4	1019.2	1019.9	1020.6	1021.2	1021.2
147.5°	1062.0	1062.5	1063.0	1063.4	1063.9	1064.5	1065.0	1065.5	1066.1	1066.6	1067.2
150°	1093.9	1093.7	1093.4	1093.2	1093.0	1093.3	1094.2	1095.1	1096.0	1096.9	1096.9
152.5°	1120.0	1120.3	1120.6	1121.1	1121.4	1121.7	1122.1	1122.4	1122.8	1123.2	1123.7
155°	1160.3	1160.3	1160.3	1160.3	1160.3	1160.4	1160.7	1160.9	1161.1	1161.4	1162.4
157.5°	1196.4	1195.9	1195.4	1194.9	1194.4	1194.3	1194.5	1194.7	1195.0	1195.2	1196.1
160°	1217.7	1217.0	1216.3	1215.7	1215.0	1214.8	1215.0	1215.2	1215.4	1215.7	1216.6
162.5°	1236.5	1236.0	1235.5	1235.0	1234.5	1234.3	1234.4	1234.4	1234.5	1234.5	1235.6
165°	1261.7	1261.2	1260.7	1260.3	1259.8	1259.7	1260.0	1260.2	1260.4	1260.6	1261.5
167.5°	1282.9	1282.0	1281.1	1280.2	1279.3	1278.9	1278.9	1278.9	1278.9	1278.9	1280.2
170°	1294.4	1293.5	1292.6	1291.7	1290.8	1290.3	1290.3	1290.3	1290.3	1290.3	1291.7
172.5°	1302.6	1301.7	1300.8	1299.9	1299.0	1298.5	1298.5	1298.5	1298.5	1298.5	1299.9
175°	1311.8	1310.9	1310.0	1309.1	1308.2	1307.7	1307.7	1307.7	1307.7	1307.7	1309.1
177.5°	1316.6	1315.8	1315.0	1314.3	1313.6	1313.1	1312.9	1312.8	1312.6	1312.4	1313.5
180°	1314.8	1314.8	1314.8	1314.8	1314.8	1314.8	1314.8	1314.8	1314.8	1314.8	1314.8



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	969.9	969.9	969.9	969.9	969.9	969.9	969.9	969.9
2.5°	967.0	968.5	969.8	970.4	970.3	970.1	970.0	969.9
5°	962.2	963.7	965.2	965.9	965.7	965.6	965.4	965.2
7.5°	952.4	953.9	955.4	956.1	955.9	955.7	955.6	955.4
10°	944.2	945.5	947.0	947.6	947.4	947.2	947.0	946.8
12.5°	933.2	934.3	935.3	935.9	935.8	935.8	935.8	935.7
15°	914.0	914.8	915.7	916.1	916.1	916.1	916.1	916.1
17.5°	891.7	892.7	893.8	893.9	893.0	892.2	891.4	890.5
20°	874.7	876.0	877.2	877.4	876.5	875.7	874.7	873.9
22.5°	855.6	856.4	857.2	857.3	856.7	856.1	855.5	855.0
25°	824.8	825.1	825.5	825.4	824.9	824.4	823.8	823.3
27.5°	792.4	792.5	792.5	792.3	791.8	791.3	790.8	790.3
30°	768.9	768.6	768.2	767.8	767.3	766.8	766.3	765.8
32.5°	745.1	744.4	743.8	743.1	742.1	741.2	740.2	739.3
35°	708.0	707.2	706.3	705.2	703.9	702.5	701.1	699.7
37.5°	669.1	667.9	666.6	665.6	664.8	664.1	663.3	662.5
40°	642.2	640.7	639.1	638.1	637.6	637.1	636.6	636.1
42.5°	615.5	614.1	612.7	611.6	610.8	610.1	609.3	608.4
45°	575.9	573.9	571.9	570.6	570.1	569.6	569.1	568.6
47.5°	534.3	532.2	530.2	528.6	527.4	526.1	524.9	523.7
50°	505.8	503.6	501.4	499.7	498.5	497.3	496.0	494.9
52.5°	478.1	476.2	474.2	472.6	471.3	469.9	468.6	467.3
55°	435.0	433.5	432.0	430.6	429.4	428.2	427.1	425.9
57.5°	392.2	390.3	388.3	387.0	386.4	385.7	385.1	384.5
60°	363.3	361.6	359.9	358.5	357.3	356.1	354.9	353.8
62.5°	335.5	333.7	331.7	330.4	329.5	328.5	327.6	326.7
65°	291.5	290.0	288.5	287.4	286.7	286.0	285.4	284.7
67.5°	249.7	248.4	247.1	246.2	245.8	245.4	245.0	244.6
70°	222.0	221.0	219.9	219.1	218.4	217.7	217.0	216.4
72.5°	195.9	194.8	193.6	192.7	192.0	191.4	190.7	190.0
75°	155.5	155.0	154.5	153.9	153.2	152.5	151.9	151.2
77.5°	118.5	118.2	117.9	117.4	116.9	116.5	116.0	115.5
80°	94.8	94.6	94.4	94.2	93.8	93.5	93.2	92.8
82.5°	72.4	72.1	71.8	71.6	71.6	71.5	71.4	71.4
85°	42.6	42.4	42.3	42.0	41.7	41.3	41.0	40.7
87.5°	19.7	19.9	20.1	20.2	20.1	19.9	19.8	19.7
90°	18.7	19.8	20.9	21.8	22.5	23.2	23.8	24.5
92.5°	42.3	43.8	45.3	46.3	46.8	47.3	47.8	48.3
95°	82.0	83.5	85.1	86.1	86.6	87.1	87.6	88.0
97.5°	128.5	130.0	131.5	132.3	132.6	132.9	133.2	133.4
100°	160.7	162.7	164.7	166.0	166.4	166.9	167.3	167.8
102.5°	193.8	196.0	198.2	199.7	200.3	201.0	201.6	202.2
105°	247.3	248.6	250.0	251.1	251.8	252.4	253.1	253.8
107.5°	305.1	305.8	306.4	306.8	306.7	306.7	306.6	306.6
110°	345.2	345.9	346.6	346.8	346.6	346.3	346.1	345.9





TEST NUMBER: P333387-840

CATALOG NUMBER: S125DIW-S610D1050U840-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	385.4	385.7	386.0	386.0	385.6	385.2	384.8	384.4
115°	446.7	446.5	446.3	446.1	445.8	445.6	445.4	445.1
117.5°	508.1	508.3	508.5	508.1	507.2	506.2	505.3	504.4
120°	549.5	549.5	549.5	549.1	548.2	547.2	546.3	545.4
122.5°	590.1	589.9	589.7	589.3	588.5	587.7	587.0	586.3
125°	649.8	649.4	648.9	648.6	648.4	648.1	647.9	647.7
127.5°	709.2	709.0	708.8	708.5	708.0	707.6	707.1	706.7
130°	748.6	748.3	748.1	747.8	747.3	746.9	746.4	746.0
132.5°	786.2	786.0	785.8	785.4	784.7	784.1	783.5	782.7
135°	844.1	844.1	844.1	843.7	842.8	841.9	841.0	840.1
137.5°	900.6	900.9	901.1	900.7	899.6	898.5	897.3	896.2
140°	936.1	936.6	937.1	936.8	935.6	934.4	933.3	932.2
142.5°	971.0	971.3	971.6	971.1	970.0	968.9	967.8	966.5
145°	1021.2	1021.2	1021.2	1020.9	1020.2	1019.5	1018.9	1018.1
147.5°	1067.7	1068.2	1068.8	1068.3	1066.8	1065.2	1063.7	1062.2
150°	1096.9	1096.9	1096.9	1096.7	1096.2	1095.8	1095.3	1094.9
152.5°	1124.2	1124.8	1125.3	1125.2	1124.4	1123.6	1122.7	1121.9
155°	1163.3	1164.2	1165.1	1164.9	1163.8	1162.7	1161.5	1160.3
157.5°	1197.0	1197.9	1198.8	1198.5	1197.0	1195.5	1194.0	1192.5
160°	1217.5	1218.4	1219.3	1219.1	1218.0	1216.9	1215.8	1214.6
162.5°	1236.7	1237.7	1238.8	1238.7	1237.4	1236.1	1234.8	1233.4
165°	1262.4	1263.3	1264.3	1264.0	1262.7	1261.3	1260.0	1258.6
167.5°	1281.6	1282.9	1284.3	1284.3	1282.9	1281.5	1280.1	1278.7
170°	1293.0	1294.4	1295.8	1295.7	1294.0	1292.5	1290.9	1289.3
172.5°	1301.2	1302.6	1303.9	1303.9	1302.5	1301.1	1299.7	1298.3
175°	1310.4	1311.8	1313.2	1313.0	1311.5	1309.9	1308.3	1306.7
177.5°	1314.6	1315.8	1316.8	1316.7	1315.5	1314.1	1312.9	1311.6
180°	1314.8	1314.8	1314.8	1314.8	1314.8	1314.8	1314.8	1314.8

(END OF REPORT)