

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: P333671-840

Luminaire Tested: **S125RDIW-S610D1050U840-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333671-840
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: S125RDIW-S610D1050U840-4F0-1E-UDD-F1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 610 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 1050 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6071.9 lumens
Efficiency: N/A
Efficacy: 134.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: Semi-Indirect

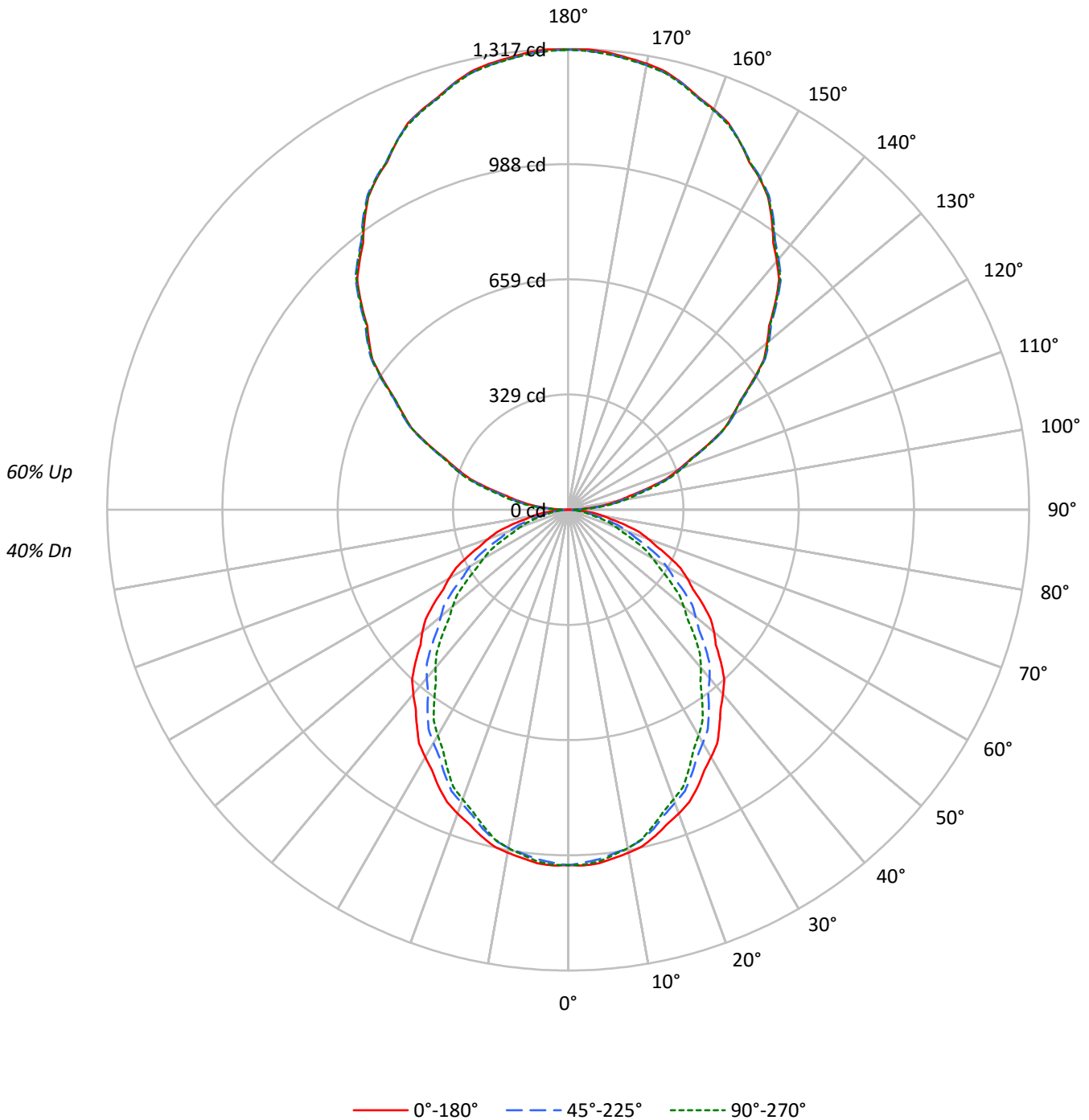
Input Watts (W): 45.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	95	95	95	95	78	78	78	61	61	61	47	47	47	40
1	96	91	88	84	87	83	80	77	68	66	64	54	53	51	41	40	40	34
2	87	80	74	69	79	73	68	64	60	56	53	48	45	43	37	35	34	28
3	80	70	63	58	72	64	58	53	53	48	45	42	39	37	33	31	29	24
4	73	62	55	49	66	57	50	45	47	42	38	38	34	31	29	27	25	21
5	67	56	48	42	61	51	44	39	42	37	33	34	30	27	26	24	22	18
6	62	50	42	36	56	46	39	34	38	33	29	31	27	24	24	21	19	16
7	57	45	37	32	52	41	34	30	34	29	25	28	24	21	22	19	17	14
8	53	41	33	28	48	38	31	26	31	26	23	26	22	19	20	17	15	13
9	49	37	30	25	45	34	28	23	29	24	20	23	20	17	19	16	14	12
10	46	34	27	22	42	31	25	21	26	22	18	22	18	15	17	15	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6561	6561	6561
5°	6576	6501	6541
10°	6526	6441	6441
15°	6449	6310	6258
20°	6349	6128	6054
25°	6233	5949	5818
30°	6088	5739	5557
35°	5941	5523	5263
40°	5802	5298	4975
45°	5634	5045	4661
50°	5466	4772	4332
55°	5271	4510	3984
60°	5074	4193	3608
65°	4843	3822	3177
70°	4579	3361	2738
75°	4212	2832	2278
80°	3712	2228	1912
85°	3127	1815	1704



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.5	1.6
10°-20°	267.0	4.4
20°-30°	387.1	6.4
30°-40°	441.2	7.3
40°-50°	430.0	7.1
50°-60°	362.0	6.0
60°-70°	253.8	4.2
70°-80°	130.4	2.1
80°-90°	35.8	0.6
90°-100°	88.1	1.5
100°-110°	260.1	4.3
110°-120°	440.5	7.3
120°-130°	579.7	9.5
130°-140°	649.6	10.7
140°-150°	636.6	10.5
150°-160°	534.7	8.8
160°-170°	355.4	5.9
170°-180°	124.4	2.0
0°-30°	749.6	12.3
0°-40°	1190.8	19.6
0°-60°	1982.8	32.7
0°-90°	2402.8	39.6
90°-120°	788.6	13.0
90°-150°	2654.6	43.7
90°-180°	3669.0	60.4
0°-180°	6071.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1016	1016	1016	1016	1016	
5°	1014	1011	1003	1010	1009	96
15°	964	959	944	943	936	272
25°	875	862	835	825	816	402
35°	754	734	700	679	668	472
45°	617	594	552	523	510	476
55°	468	442	400	367	354	418
65°	317	290	250	220	208	314
75°	169	145	114	97	91	179
85°	42	29	24	24	23	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°	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9
2.5°	1017.7	1017.3	1016.9	1016.5	1016.1	1015.2	1013.8	1012.5	1011.1	1009.8	1011.1
5°	1014.3	1013.7	1013.0	1012.3	1011.6	1010.4	1008.5	1006.6	1004.7	1002.8	1004.5
7.5°	1004.4	1003.7	1003.1	1002.4	1001.8	1000.4	998.0	995.8	993.6	991.3	992.5
10°	995.1	994.6	994.1	993.6	993.1	991.7	989.3	986.9	984.5	982.1	982.6
12.5°	984.7	984.1	983.4	982.8	982.1	980.2	977.0	973.8	970.6	967.3	967.8
15°	964.5	963.4	962.4	961.4	960.4	958.1	954.5	950.9	947.4	943.7	943.6
17.5°	941.6	940.1	938.5	937.0	935.3	932.3	927.8	923.3	918.8	914.3	913.4
20°	923.8	922.1	920.4	918.7	917.0	913.4	908.0	902.5	897.1	891.6	890.7
22.5°	904.1	902.4	900.8	899.1	897.4	893.6	887.9	882.2	876.5	870.7	869.1
25°	874.7	872.1	869.6	867.1	864.4	860.0	853.7	847.4	841.1	834.8	832.6
27.5°	840.9	837.9	834.8	831.6	828.5	823.6	816.9	810.1	803.3	796.6	793.5
30°	816.4	813.1	809.9	806.7	803.4	798.2	791.0	784.0	776.8	769.6	765.7
32.5°	792.4	788.7	784.9	781.1	777.3	771.7	764.5	757.2	749.8	742.6	738.2
35°	753.5	749.4	745.3	741.2	737.1	731.2	723.6	715.9	708.2	700.5	695.6
37.5°	715.3	710.2	705.3	700.3	695.4	688.9	681.0	673.1	665.2	657.2	651.4
40°	688.2	683.2	678.0	672.9	667.8	661.2	653.0	644.8	636.6	628.4	622.0
42.5°	660.0	654.8	649.5	644.3	639.0	632.2	623.7	615.2	606.8	598.3	592.1
45°	616.9	612.0	607.0	602.1	597.1	590.0	580.6	571.2	561.8	552.4	545.6
47.5°	572.3	567.0	561.8	556.6	551.4	544.0	534.6	525.1	515.7	506.2	499.3
50°	544.0	538.4	532.7	527.1	521.5	513.8	504.1	494.4	484.6	474.9	467.8
52.5°	513.3	507.6	501.8	496.0	490.3	482.8	473.6	464.4	455.2	446.1	438.4
55°	468.1	462.6	457.2	451.7	446.3	438.7	429.2	419.6	410.1	400.5	392.8
57.5°	422.3	416.5	410.6	404.9	399.0	391.4	382.2	373.0	363.9	354.7	347.1
60°	392.8	386.9	380.9	375.0	369.0	361.4	352.1	343.0	333.8	324.6	317.1
62.5°	361.5	355.9	350.1	344.5	338.8	331.2	321.9	312.6	303.3	293.9	286.9
65°	316.9	311.1	305.3	299.5	293.7	286.3	277.2	268.2	259.1	250.1	243.3
67.5°	272.6	266.7	260.9	255.2	249.3	242.2	233.5	224.8	216.1	207.4	201.3
70°	242.5	236.7	230.9	225.1	219.2	212.1	203.6	195.1	186.5	178.0	172.7
72.5°	213.0	207.3	201.7	196.0	190.4	183.5	175.5	167.5	159.6	151.6	146.7
75°	168.8	163.7	158.5	153.5	148.3	142.2	135.0	127.8	120.7	113.5	109.8
77.5°	124.9	120.8	116.7	112.6	108.6	103.6	97.9	92.2	86.4	80.7	78.1
80°	99.8	95.6	91.6	87.5	83.4	79.0	74.1	69.4	64.6	59.9	58.3
82.5°	75.2	71.5	67.9	64.1	60.5	57.0	53.7	50.4	47.2	43.9	43.2
85°	42.2	39.1	36.1	33.0	29.9	28.0	27.1	26.3	25.4	24.5	24.3
87.5°	14.3	13.7	13.1	12.5	11.9	11.7	11.9	12.1	12.3	12.5	12.7
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°	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9
2.5°	1012.5	1013.8	1015.2	1015.8	1015.7	1015.5	1015.4	1015.3
5°	1006.2	1007.9	1009.7	1010.4	1010.0	1009.7	1009.4	1009.0
7.5°	993.7	994.9	996.1	996.5	996.1	995.7	995.4	995.0
10°	983.1	983.6	984.2	984.2	983.6	983.1	982.6	982.1
12.5°	968.2	968.6	968.9	968.7	967.9	967.1	966.3	965.5
15°	943.4	943.2	943.1	942.2	940.7	939.2	937.7	936.0
17.5°	912.6	911.7	910.9	909.8	908.6	907.3	906.1	904.7
20°	889.9	889.0	888.2	887.0	885.4	883.9	882.4	880.8
22.5°	867.4	865.7	864.0	862.5	861.3	860.0	858.8	857.5
25°	830.4	828.2	826.0	823.8	822.0	820.1	818.3	816.4
27.5°	790.4	787.3	784.2	781.7	779.9	778.1	776.3	774.5
30°	761.7	757.8	753.9	751.1	749.6	748.1	746.6	745.1
32.5°	733.9	729.6	725.3	722.2	720.1	718.2	716.3	714.4
35°	690.6	685.7	680.8	677.1	674.7	672.3	669.9	667.5
37.5°	645.4	639.4	633.5	629.3	627.0	624.8	622.5	620.2
40°	615.4	608.9	602.5	598.2	596.2	594.1	592.1	590.1
42.5°	585.9	579.7	573.5	568.9	565.9	562.9	559.9	556.9
45°	538.8	532.0	525.1	520.5	518.0	515.3	512.8	510.3
47.5°	492.2	485.1	478.2	473.2	470.4	467.6	464.7	461.9
50°	460.6	453.4	446.3	441.4	438.9	436.4	433.7	431.2
52.5°	430.7	422.9	415.3	410.1	407.6	405.1	402.4	399.9
55°	385.2	377.5	369.8	364.7	361.9	359.2	356.5	353.8
57.5°	339.6	332.1	324.7	319.6	317.2	314.8	312.5	310.0
60°	309.5	302.1	294.6	289.5	287.0	284.4	281.9	279.3
62.5°	279.9	273.0	266.0	261.3	258.7	256.2	253.6	251.1
65°	236.5	229.6	222.9	218.1	215.6	213.1	210.5	207.9
67.5°	195.0	188.7	182.5	178.3	176.3	174.3	172.2	170.2
70°	167.4	162.2	156.8	153.2	151.2	149.2	147.0	145.0
72.5°	141.9	136.9	132.1	129.0	127.6	126.2	124.9	123.5
75°	106.0	102.3	98.6	96.0	94.9	93.7	92.5	91.3
77.5°	75.4	72.8	70.2	68.5	67.6	66.7	65.8	64.9
80°	56.8	55.2	53.7	52.8	52.4	52.1	51.7	51.4
82.5°	42.4	41.7	41.0	40.6	40.4	40.2	40.0	39.8
85°	24.2	24.0	23.8	23.7	23.5	23.3	23.2	23.0
87.5°	12.9	13.1	13.4	13.5	13.5	13.5	13.5	13.5
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: P333671-840

CATALOG NUMBER: S125RDIW-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)