

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: P333670-840

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333670-840
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-7,
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-F
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, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6633.8 lumens
Efficiency: N/A
Efficacy: 146.8 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

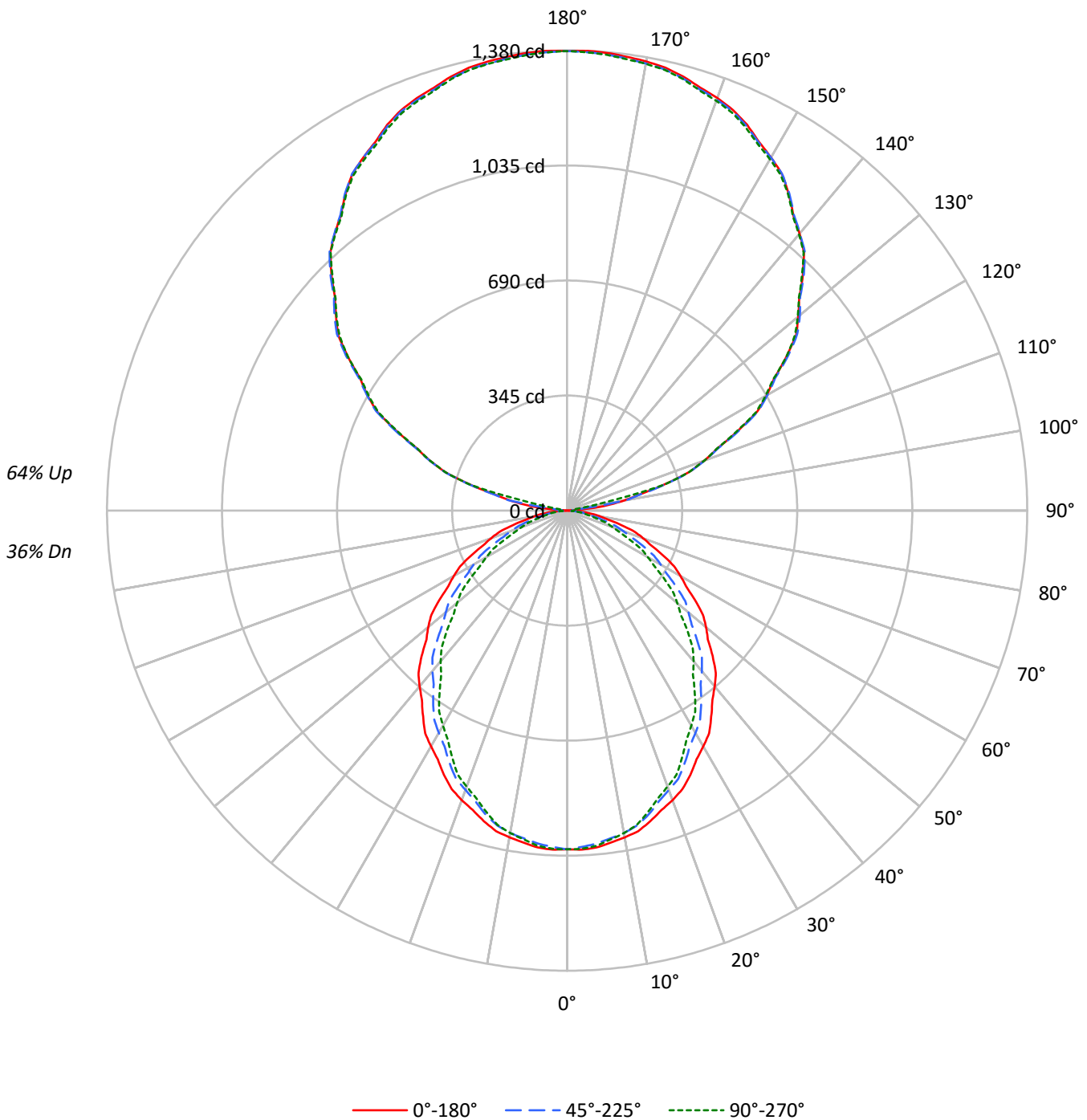
Input Watts (W): 45.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	104	104	104	104	94	94	94	94	76	76	76	59	59	59	43	43	43	36
1	95	91	87	84	86	82	79	76	66	64	62	52	51	49	39	38	37	31
2	86	79	73	68	78	72	67	63	58	55	52	46	43	41	34	33	31	26
3	79	70	63	57	71	63	57	53	52	47	44	41	38	35	30	28	27	22
4	72	62	54	48	65	56	50	45	46	41	37	36	33	30	27	25	23	19
5	66	55	47	41	60	50	43	38	41	36	32	33	29	26	25	22	20	17
6	61	49	41	36	55	45	38	33	37	32	28	29	26	23	22	20	18	15
7	56	44	37	31	51	41	34	29	33	28	25	27	23	20	20	18	16	13
8	52	40	33	28	47	37	30	26	30	25	22	24	21	18	19	16	14	12
9	49	37	29	25	44	34	27	23	28	23	19	22	19	16	17	15	13	11
10	45	34	27	22	41	31	25	20	26	21	18	21	17	15	16	14	12	10

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	1.4
10°-20°	267.0	4.0
20°-30°	387.1	5.8
30°-40°	441.2	6.7
40°-50°	430.0	6.5
50°-60°	362.0	5.5
60°-70°	253.8	3.8
70°-80°	130.4	2.0
80°-90°	35.8	0.5
90°-100°	50.1	0.8
100°-110°	308.6	4.7
110°-120°	559.7	8.4
120°-130°	718.2	10.8
130°-140°	772.5	11.6
140°-150°	725.1	10.9
150°-160°	586.6	8.8
160°-170°	379.4	5.7
170°-180°	130.8	2.0
0°-30°	749.6	11.3
0°-40°	1190.8	18.0
0°-60°	1982.8	29.9
0°-90°	2402.8	36.2
90°-120°	918.3	13.8
90°-150°	3134.2	47.2
90°-180°	4231.0	63.8
0°-180°	6633.8	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	4
95°	58	53	16	21	21	74
105°	300	304	304	304	303	318
115°	564	569	570	566	560	559
125°	802	808	809	805	802	716
135°	1000	1006	1004	1002	996	770
145°	1159	1161	1161	1162	1156	725
155°	1277	1271	1273	1275	1268	588
165°	1347	1341	1342	1347	1340	380
175°	1378	1372	1373	1380	1372	131
180°	1378	1378	1378	1378	1378	



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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	13.1	14.7	16.4	17.5
92.5°	15.8	14.4	13.2	11.9	10.6	10.7	12.1	13.5	14.9	16.4	17.5
95°	58.2	57.6	56.9	56.1	55.5	50.8	42.2	33.6	24.9	16.4	17.5
97.5°	121.6	122.8	124.0	125.2	126.4	118.6	101.5	84.4	67.4	50.3	43.8
100°	170.6	171.3	171.9	172.6	173.3	174.1	175.0	175.9	176.8	177.7	143.9
102.5°	220.5	221.3	222.2	223.0	223.9	224.6	225.1	225.6	226.2	226.7	220.4
105°	300.2	301.1	302.1	303.0	303.9	304.4	304.4	304.4	304.4	304.4	304.4
107.5°	383.2	383.2	383.2	383.2	383.2	383.4	383.8	384.4	384.8	385.3	385.3
110°	437.2	437.2	437.2	437.2	437.2	437.4	437.8	438.3	438.7	439.2	438.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	487.8	488.4	488.9	489.4	490.0	490.4	490.7	490.9	491.2	491.5	490.6
115°	563.8	564.9	566.0	567.1	568.4	569.0	569.3	569.5	569.7	569.9	569.0
117.5°	642.5	642.4	642.4	642.3	642.3	642.7	643.5	644.4	645.2	646.1	644.9
120°	691.5	691.3	690.9	690.7	690.5	690.7	691.5	692.2	692.8	693.5	693.1
122.5°	734.8	735.6	736.5	737.3	738.2	738.8	739.1	739.4	739.7	740.0	739.6
125°	801.7	803.3	805.0	806.5	808.1	808.9	808.9	808.9	808.9	808.9	808.0
127.5°	865.7	866.9	868.0	869.1	870.2	870.7	870.6	870.5	870.3	870.2	869.7
130°	904.9	906.1	907.2	908.3	909.5	910.1	910.4	910.6	910.8	911.0	910.4
132.5°	944.1	945.4	946.7	948.1	949.4	949.8	949.3	948.8	948.3	947.9	947.7
135°	999.9	1001.3	1002.6	1004.0	1005.3	1005.8	1005.3	1004.9	1004.4	1004.0	1003.5
137.5°	1051.2	1052.4	1053.5	1054.7	1055.9	1056.3	1055.9	1055.5	1055.0	1054.6	1054.7
140°	1084.7	1085.1	1085.6	1086.0	1086.5	1086.6	1086.4	1086.1	1085.9	1085.7	1086.1
142.5°	1114.9	1115.2	1115.5	1115.7	1116.0	1116.3	1116.6	1116.9	1117.2	1117.5	1117.6
145°	1159.2	1159.7	1160.1	1160.6	1161.0	1161.2	1161.2	1161.2	1161.2	1161.2	1161.5
147.5°	1198.0	1198.0	1197.9	1197.8	1197.7	1197.8	1198.0	1198.3	1198.6	1198.8	1199.1
150°	1222.5	1222.1	1221.6	1221.2	1220.7	1220.7	1221.2	1221.6	1222.1	1222.5	1223.0
152.5°	1246.3	1245.3	1244.3	1243.2	1242.2	1242.0	1242.4	1242.9	1243.3	1243.7	1244.3
155°	1276.7	1275.4	1273.9	1272.6	1271.2	1270.8	1271.2	1271.7	1272.1	1272.6	1273.2
157.5°	1300.2	1299.4	1298.6	1297.8	1296.9	1296.6	1296.6	1296.6	1296.7	1296.7	1297.5
160°	1316.6	1315.1	1313.8	1312.4	1311.1	1310.5	1310.7	1311.0	1311.2	1311.4	1312.3
162.5°	1329.6	1328.3	1326.9	1325.5	1324.1	1323.5	1323.8	1324.0	1324.2	1324.4	1325.8
165°	1347.2	1345.8	1344.4	1343.1	1341.7	1341.1	1341.4	1341.6	1341.8	1342.0	1343.4
167.5°	1360.2	1358.9	1357.5	1356.0	1354.6	1354.0	1354.2	1354.4	1354.7	1354.9	1356.6
170°	1367.6	1366.0	1364.4	1362.8	1361.2	1360.6	1360.8	1361.0	1361.2	1361.5	1363.3
172.5°	1372.5	1370.9	1369.3	1367.8	1366.1	1365.5	1365.9	1366.3	1366.8	1367.2	1368.8
175°	1377.8	1376.4	1375.0	1373.7	1372.3	1371.8	1372.0	1372.2	1372.5	1372.7	1374.5
177.5°	1380.3	1379.2	1378.1	1377.0	1375.9	1375.4	1375.6	1375.8	1375.9	1376.1	1377.5
180°	1377.8	1377.8	1377.8	1377.8	1377.8	1377.8	1377.8	1377.8	1377.8	1377.8	1377.8



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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°	18.6	19.8	20.9	21.8	22.5	23.1	23.8	24.5
92.5°	18.6	19.8	20.9	21.6	21.9	22.2	22.5	22.9
95°	18.6	19.8	20.9	21.4	21.4	21.4	21.4	21.4
97.5°	37.5	31.0	24.6	21.4	21.4	21.4	21.4	21.4
100°	110.1	76.2	42.4	25.0	24.1	23.2	22.3	21.4
102.5°	213.9	207.5	201.2	190.3	174.8	159.4	143.9	128.5
105°	304.4	304.4	304.4	304.3	304.1	303.8	303.6	303.4
107.5°	385.4	385.4	385.5	385.2	384.5	383.7	383.0	382.4
110°	437.8	437.2	436.5	436.3	436.5	436.7	436.9	437.2



TEST NUMBER: P333670-840

CATALOG NUMBER: S125RDIW-S610D1050U840-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	489.8	488.9	488.1	487.5	487.2	486.8	486.5	486.1
115°	568.0	567.1	566.2	565.1	563.8	562.4	561.1	559.7
117.5°	643.8	642.6	641.4	640.5	640.0	639.3	638.7	638.1
120°	692.6	692.2	691.7	690.8	689.7	688.6	687.5	686.3
122.5°	739.1	738.7	738.2	737.4	736.1	734.8	733.5	732.2
125°	807.1	806.2	805.3	804.5	803.9	803.1	802.4	801.7
127.5°	869.2	868.7	868.2	867.1	865.5	863.7	862.0	860.4
130°	909.7	909.0	908.3	907.4	906.3	905.1	904.0	902.9
132.5°	947.6	947.4	947.3	946.6	945.5	944.3	943.2	942.1
135°	1003.1	1002.6	1002.2	1001.3	999.9	998.6	997.1	995.8
137.5°	1054.8	1054.9	1055.0	1054.5	1053.3	1052.1	1051.0	1049.8
140°	1086.6	1087.0	1087.5	1087.0	1085.7	1084.3	1083.0	1081.6
142.5°	1117.7	1117.8	1117.9	1117.3	1115.9	1114.6	1113.2	1111.9
145°	1161.7	1162.0	1162.2	1161.6	1160.2	1158.9	1157.5	1156.2
147.5°	1199.4	1199.7	1199.9	1199.3	1197.6	1196.0	1194.4	1192.8
150°	1223.5	1224.0	1224.4	1223.7	1221.8	1220.0	1218.2	1216.4
152.5°	1244.7	1245.2	1245.6	1245.1	1243.3	1241.7	1240.1	1238.5
155°	1273.9	1274.7	1275.4	1274.8	1272.9	1271.1	1269.3	1267.5
157.5°	1298.2	1298.9	1299.6	1299.1	1297.3	1295.5	1293.6	1291.8
160°	1313.2	1314.1	1315.0	1314.5	1312.8	1311.0	1309.2	1307.4
162.5°	1327.1	1328.3	1329.6	1329.2	1327.2	1325.2	1323.2	1321.2
165°	1344.7	1346.2	1347.5	1347.3	1345.4	1343.6	1341.8	1340.0
167.5°	1358.2	1359.8	1361.5	1361.3	1359.2	1357.2	1355.1	1353.1
170°	1365.1	1367.0	1368.8	1368.6	1366.5	1364.5	1362.5	1360.4
172.5°	1370.5	1372.1	1373.7	1373.5	1371.5	1369.4	1367.4	1365.3
175°	1376.3	1378.2	1380.0	1379.9	1377.8	1375.7	1373.7	1371.7
177.5°	1378.7	1380.0	1381.3	1381.2	1379.7	1378.3	1376.8	1375.3
180°	1377.8	1377.8	1377.8	1377.8	1377.8	1377.8	1377.8	1377.8

(END OF REPORT)