

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: P333666-840

Luminaire Tested: **S125RDIW-S610D770U840-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333666-840
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-S610D770U840-4F0-1E-UDD-F
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 610 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 770 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5501.8 lumens
Efficiency: N/A
Efficacy: 146.3 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: General Diffuse

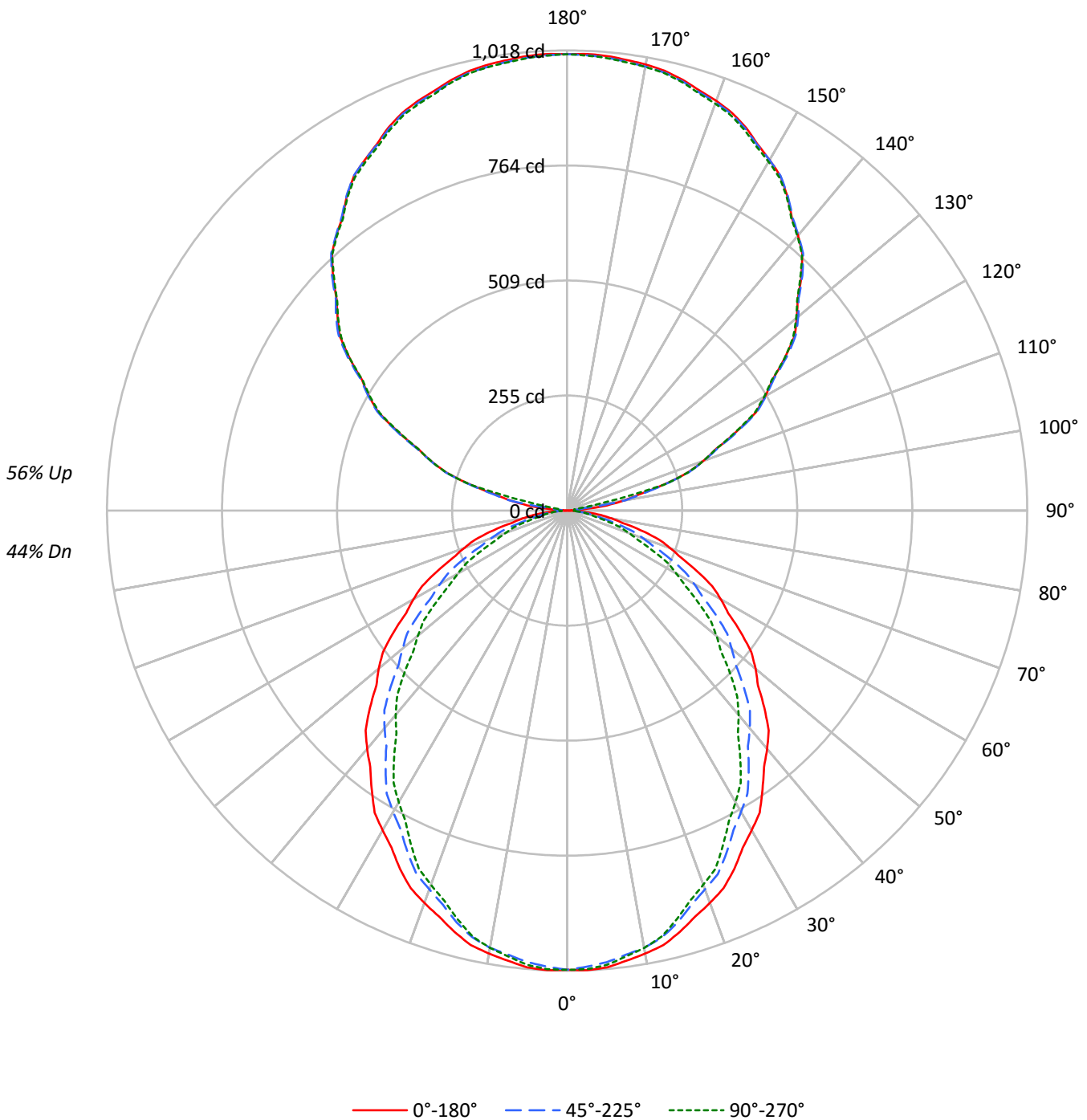
Input Watts (W): 37.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333666-840

CATALOG NUMBER: S125RDIW-S610D770U840-4F0-1E-UDD-F

Luminous Intensity Polar Plot





TEST NUMBER: P333666-840

CATALOG NUMBER: S125RDIW-S610D770U840-4F0-1E-UDD-F

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	106	106	106	106	97	97	97	97	80	80	80	64	64	64	50	50	50	44
1	97	92	89	85	88	85	81	79	70	68	66	57	55	54	45	44	43	37
2	88	81	75	70	80	74	69	65	62	58	55	50	48	45	40	38	36	31
3	80	71	64	58	73	65	59	54	55	50	46	45	41	39	35	33	31	27
4	74	63	55	49	67	58	51	46	49	44	40	40	36	33	32	29	27	23
5	68	56	48	42	62	52	45	40	43	38	34	36	32	29	29	26	24	20
6	62	50	42	37	57	47	40	34	39	34	30	32	28	25	26	23	21	18
7	58	46	38	32	53	42	35	30	36	30	26	29	25	22	24	21	19	16
8	53	41	34	29	49	38	31	27	32	27	23	27	23	20	22	19	17	14
9	50	38	30	25	46	35	28	24	30	25	21	25	21	18	20	17	15	13
10	46	35	27	23	43	32	26	21	27	22	19	23	19	16	19	16	14	12

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



TEST NUMBER: P333666-840

CATALOG NUMBER: S125RDIW-S610D770U840-4F0-1E-UDD-F

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.5	1.7
10°-20°	267.0	4.9
20°-30°	387.1	7.0
30°-40°	441.2	8.0
40°-50°	430.0	7.8
50°-60°	362.0	6.6
60°-70°	253.8	4.6
70°-80°	130.4	2.4
80°-90°	35.0	0.6
90°-100°	36.7	0.7
100°-110°	226.1	4.1
110°-120°	410.0	7.5
120°-130°	526.2	9.6
130°-140°	566.0	10.3
140°-150°	531.3	9.7
150°-160°	429.7	7.8
160°-170°	277.9	5.1
170°-180°	95.9	1.7
0°-30°	749.6	13.6
0°-40°	1190.8	21.6
0°-60°	1982.8	36.0
0°-90°	2402.1	43.7
90°-120°	672.8	12.2
90°-150°	2296.2	41.7
90°-180°	3100.0	56.3
0°-180°	5501.8	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	7	12	16	18	4
95°	43	39	12	16	16	54
105°	220	223	223	223	222	233
115°	413	417	418	414	410	409
125°	587	592	593	590	587	524
135°	733	737	736	734	730	564
145°	849	851	851	851	847	531
155°	935	931	932	934	929	431
165°	987	983	983	987	982	279
175°	1010	1005	1006	1011	1005	96
180°	1010	1010	1010	1010	1010	



TEST NUMBER: P333666-840

CATALOG NUMBER: S125RDIW-S610D770U840-4F0-1E-UDD-F

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°	14.2	13.5	12.9	12.2	11.5	11.2	11.3	11.4	11.5	11.6	11.8
90°	0.7	2.1	3.4	4.7	6.1	7.3	8.5	9.7	10.8	12.0	12.8
92.5°	11.5	10.6	9.7	8.7	7.8	7.9	8.9	9.9	10.9	12.0	12.8
95°	42.6	42.1	41.6	41.2	40.7	37.3	30.9	24.6	18.3	12.0	12.8
97.5°	89.1	90.0	90.9	91.7	92.6	86.8	74.3	61.8	49.3	36.9	32.1
100°	124.9	125.4	125.9	126.4	126.9	127.5	128.3	128.9	129.6	130.2	105.4
102.5°	161.5	162.1	162.8	163.4	164.0	164.5	164.9	165.3	165.7	166.1	161.5
105°	219.9	220.7	221.4	222.0	222.7	223.0	223.0	223.0	223.0	223.0	223.0
107.5°	280.7	280.7	280.7	280.7	280.7	280.9	281.2	281.6	282.0	282.3	282.3
110°	320.2	320.2	320.2	320.2	320.2	320.4	320.7	321.1	321.4	321.7	321.2



TEST NUMBER: P333666-840

CATALOG NUMBER: S125RDIW-S610D770U840-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	357.4	357.8	358.2	358.6	359.0	359.3	359.5	359.7	359.9	360.1	359.4
115°	413.0	413.8	414.8	415.6	416.4	416.9	417.1	417.2	417.4	417.6	416.9
117.5°	470.7	470.6	470.6	470.6	470.5	470.8	471.5	472.1	472.7	473.3	472.5
120°	506.5	506.4	506.2	506.0	505.9	506.0	506.5	507.1	507.6	508.1	507.8
122.5°	538.3	539.0	539.6	540.2	540.9	541.3	541.5	541.7	542.0	542.2	541.9
125°	587.4	588.5	589.8	590.9	592.1	592.6	592.6	592.6	592.6	592.6	592.0
127.5°	634.2	635.1	635.9	636.7	637.5	637.9	637.8	637.7	637.6	637.5	637.1
130°	663.0	663.8	664.6	665.5	666.3	666.8	666.9	667.1	667.3	667.4	666.9
132.5°	691.7	692.7	693.7	694.6	695.6	695.9	695.5	695.1	694.8	694.4	694.3
135°	732.6	733.6	734.6	735.6	736.6	736.9	736.6	736.2	735.9	735.6	735.2
137.5°	770.1	771.0	771.8	772.7	773.6	773.9	773.6	773.3	773.0	772.6	772.7
140°	794.7	795.0	795.4	795.7	796.0	796.1	795.9	795.8	795.6	795.4	795.8
142.5°	816.8	817.0	817.2	817.4	817.6	817.8	818.1	818.3	818.5	818.8	818.8
145°	849.3	849.6	850.0	850.3	850.6	850.8	850.8	850.8	850.8	850.8	850.9
147.5°	877.8	877.7	877.6	877.6	877.5	877.6	877.8	877.9	878.1	878.3	878.5
150°	895.6	895.3	895.0	894.6	894.3	894.3	894.6	895.0	895.3	895.6	896.1
152.5°	913.0	912.3	911.6	910.9	910.1	909.9	910.3	910.6	910.9	911.2	911.6
155°	935.3	934.3	933.3	932.3	931.4	931.0	931.4	931.7	932.0	932.3	932.8
157.5°	952.5	952.0	951.4	950.8	950.2	949.9	949.9	950.0	950.0	950.0	950.6
160°	964.5	963.5	962.5	961.5	960.6	960.1	960.3	960.5	960.6	960.8	961.5
162.5°	974.1	973.1	972.1	971.1	970.1	969.7	969.9	970.1	970.2	970.4	971.3
165°	986.9	985.9	985.0	984.0	983.0	982.6	982.7	982.9	983.1	983.2	984.2
167.5°	996.5	995.5	994.5	993.5	992.4	992.0	992.2	992.3	992.5	992.7	993.8
170°	1002.0	1000.8	999.6	998.5	997.2	996.7	996.9	997.1	997.2	997.4	998.8
172.5°	1005.5	1004.4	1003.2	1002.0	1000.9	1000.5	1000.8	1001.1	1001.4	1001.7	1002.8
175°	1009.5	1008.5	1007.4	1006.4	1005.4	1005.0	1005.2	1005.3	1005.5	1005.7	1007.0
177.5°	1011.2	1010.4	1009.7	1008.9	1008.0	1007.6	1007.8	1007.9	1008.0	1008.2	1009.2
180°	1009.5	1009.5	1009.5	1009.5	1009.5	1009.5	1009.5	1009.5	1009.5	1009.5	1009.5



TEST NUMBER: P333666-840

CATALOG NUMBER: S125RDIW-S610D770U840-4F0-1E-UDD-F

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°	11.9	12.1	12.2	12.3	12.3	12.2	12.2	12.2
90°	13.6	14.4	15.2	16.0	16.5	17.0	17.5	18.0
92.5°	13.6	14.4	15.2	15.9	16.1	16.3	16.6	16.8
95°	13.6	14.4	15.2	15.8	15.8	15.8	15.8	15.8
97.5°	27.5	22.7	18.1	15.8	15.8	15.8	15.8	15.8
100°	80.7	55.8	31.1	18.4	17.7	17.1	16.4	15.8
102.5°	156.7	152.1	147.3	139.4	128.1	116.7	105.4	94.1
105°	223.0	223.0	223.0	222.9	222.8	222.6	222.4	222.3
107.5°	282.4	282.4	282.4	282.2	281.7	281.1	280.6	280.1
110°	320.7	320.2	319.7	319.6	319.7	319.9	320.1	320.2



TEST NUMBER: P333666-840

CATALOG NUMBER: S125RDIW-S610D770U840-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	358.8	358.2	357.5	357.1	356.9	356.7	356.4	356.2
115°	416.2	415.6	414.9	414.0	413.0	412.0	411.0	410.0
117.5°	471.6	470.8	469.9	469.3	468.8	468.4	468.0	467.6
120°	507.5	507.1	506.8	506.1	505.3	504.5	503.7	502.8
122.5°	541.5	541.2	540.9	540.2	539.3	538.3	537.3	536.3
125°	591.3	590.7	590.0	589.4	588.9	588.3	587.9	587.4
127.5°	636.8	636.4	636.1	635.3	634.0	632.8	631.6	630.4
130°	666.5	666.0	665.5	664.8	664.0	663.2	662.3	661.5
132.5°	694.2	694.1	694.0	693.6	692.7	691.9	691.1	690.2
135°	734.9	734.6	734.3	733.6	732.6	731.5	730.5	729.5
137.5°	772.8	772.8	773.0	772.5	771.6	770.8	769.9	769.1
140°	796.1	796.4	796.8	796.4	795.4	794.5	793.5	792.4
142.5°	818.9	819.0	819.0	818.6	817.6	816.6	815.6	814.6
145°	851.1	851.3	851.4	851.0	850.0	849.0	848.1	847.1
147.5°	878.7	878.9	879.1	878.6	877.5	876.3	875.0	873.8
150°	896.4	896.7	897.1	896.6	895.1	893.8	892.5	891.2
152.5°	911.9	912.2	912.6	912.1	910.9	909.8	908.6	907.4
155°	933.3	933.8	934.3	933.9	932.6	931.3	930.0	928.6
157.5°	951.1	951.6	952.1	951.7	950.4	949.1	947.8	946.4
160°	962.1	962.8	963.4	963.1	961.8	960.5	959.2	957.8
162.5°	972.2	973.1	974.1	973.8	972.4	970.9	969.5	968.0
165°	985.2	986.2	987.2	987.0	985.7	984.4	983.1	981.7
167.5°	995.0	996.2	997.4	997.3	995.8	994.3	992.8	991.3
170°	1000.1	1001.5	1002.8	1002.7	1001.2	999.7	998.2	996.7
172.5°	1004.0	1005.2	1006.4	1006.2	1004.8	1003.3	1001.8	1000.3
175°	1008.4	1009.7	1011.0	1010.9	1009.5	1007.9	1006.4	1004.9
177.5°	1010.1	1011.0	1012.0	1011.9	1010.8	1009.8	1008.7	1007.6
180°	1009.5	1009.5	1009.5	1009.5	1009.5	1009.5	1009.5	1009.5

(END OF REPORT)