

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: P333690-927

Luminaire Tested: **S125RDIW-S850D1050U927-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333690-927
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-S850D1050U927-4F0-1E-UDD-F
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 850 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: 5894.6 lumens
Efficiency: N/A
Efficacy: 112.1 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

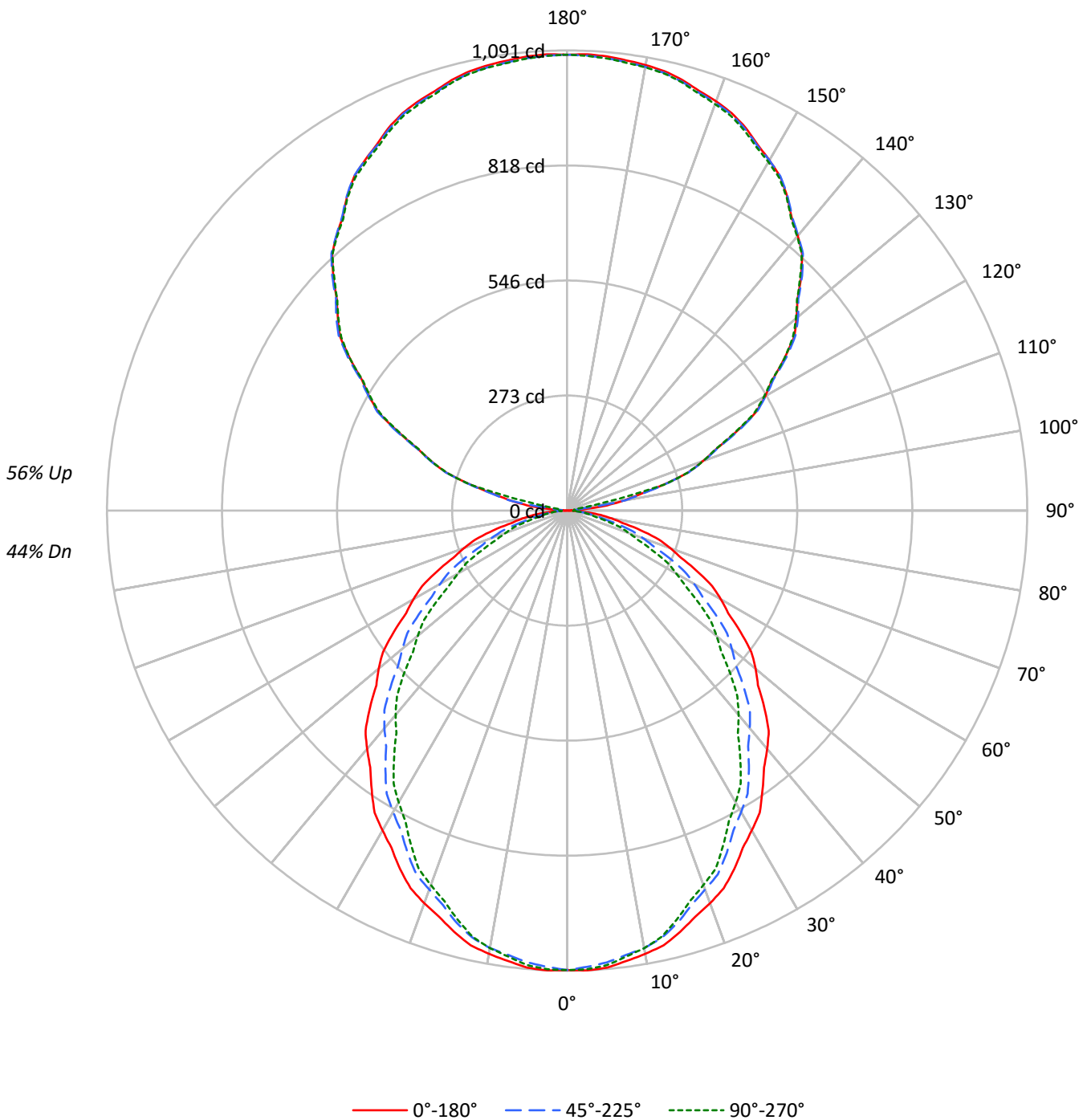
Input Watts (W): 52.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	44	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°	7035	7035	7035
5°	7052	6971	7014
10°	6998	6906	6906
15°	6915	6766	6711
20°	6808	6570	6491
25°	6683	6379	6238
30°	6528	6154	5957
35°	6370	5922	5643
40°	6222	5681	5334
45°	6042	5411	4997
50°	5861	5117	4646
55°	5650	4835	4271
60°	5441	4495	3867
65°	5193	4099	3406
70°	4910	3603	2936
75°	4517	3039	2443
80°	3976	2388	2049
85°	3349	1949	1830



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.4	1.7
10°-20°	286.2	4.9
20°-30°	415.1	7.0
30°-40°	473.1	8.0
40°-50°	461.1	7.8
50°-60°	388.2	6.6
60°-70°	272.1	4.6
70°-80°	139.9	2.4
80°-90°	37.6	0.6
90°-100°	39.3	0.7
100°-110°	242.1	4.1
110°-120°	439.0	7.4
120°-130°	563.4	9.6
130°-140°	606.0	10.3
140°-150°	568.8	9.6
150°-160°	460.1	7.8
160°-170°	297.6	5.0
170°-180°	102.6	1.7
0°-30°	803.8	13.6
0°-40°	1276.8	21.7
0°-60°	2126.1	36.1
0°-90°	2575.7	43.7
90°-120°	720.3	12.2
90°-150°	2458.6	41.7
90°-180°	3319.0	56.3
0°-180°	5894.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1089	1089	1089	1089	1089	
5°	1088	1084	1075	1083	1082	103
15°	1034	1029	1012	1011	1004	291
25°	938	925	895	885	875	431
35°	808	787	751	728	716	506
45°	662	636	592	561	547	510
55°	502	474	429	394	379	449
65°	340	311	268	236	223	336
75°	181	156	122	104	98	192
85°	45	31	26	26	25	51
90°	1	7	13	17	19	4
95°	46	42	13	17	17	58
105°	236	239	239	239	238	250
115°	442	446	447	444	439	438
125°	629	634	634	631	629	562
135°	784	789	788	786	781	604
145°	909	911	911	911	907	568
155°	1002	997	998	1000	994	461
165°	1057	1052	1053	1057	1051	298
175°	1081	1076	1077	1082	1076	103
180°	1081	1081	1081	1081	1081	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3
2.5°	1091.2	1090.8	1090.4	1090.0	1089.5	1088.5	1087.1	1085.6	1084.2	1082.7	1084.2
5°	1087.7	1087.0	1086.2	1085.4	1084.7	1083.4	1081.3	1079.3	1077.3	1075.3	1077.1
7.5°	1077.0	1076.3	1075.5	1074.8	1074.2	1072.6	1070.2	1067.8	1065.4	1063.0	1064.2
10°	1067.1	1066.5	1066.0	1065.4	1064.9	1063.3	1060.8	1058.2	1055.7	1053.1	1053.6
12.5°	1055.9	1055.2	1054.5	1053.8	1053.1	1051.1	1047.6	1044.2	1040.8	1037.3	1037.7
15°	1034.2	1033.1	1032.0	1030.9	1029.8	1027.3	1023.5	1019.6	1015.8	1011.9	1011.8
17.5°	1009.6	1008.0	1006.3	1004.6	1002.9	999.7	994.8	990.0	985.2	980.3	979.5
20°	990.5	988.7	986.9	985.1	983.3	979.4	973.6	967.7	961.9	956.0	955.1
22.5°	969.5	967.7	965.8	964.0	962.2	958.2	952.0	945.9	939.8	933.7	931.8
25°	937.9	935.2	932.4	929.7	926.9	922.2	915.4	908.6	901.9	895.2	892.8
27.5°	901.7	898.4	895.1	891.8	888.4	883.1	875.9	868.6	861.4	854.1	850.8
30°	875.4	871.9	868.5	865.0	861.5	855.9	848.3	840.6	832.9	825.2	821.0
32.5°	849.7	845.7	841.6	837.6	833.5	827.5	819.8	811.9	804.1	796.2	791.6
35°	807.9	803.5	799.2	794.7	790.4	784.0	775.9	767.6	759.4	751.1	745.8
37.5°	766.9	761.6	756.3	750.9	745.6	738.7	730.2	721.7	713.2	704.7	698.4
40°	738.0	732.5	727.0	721.5	716.1	708.9	700.1	691.3	682.6	673.8	666.9
42.5°	707.7	702.1	696.5	690.8	685.2	677.9	668.8	659.7	650.6	641.6	634.9
45°	661.5	656.2	650.9	645.5	640.2	632.6	622.5	612.5	602.5	592.4	585.0
47.5°	613.6	608.0	602.4	596.8	591.2	583.4	573.2	563.1	552.9	542.8	535.3
50°	583.3	577.3	571.2	565.2	559.2	551.0	540.5	530.1	519.7	509.3	501.6
52.5°	550.4	544.2	538.1	531.9	525.7	517.7	507.9	498.0	488.1	478.3	470.1
55°	501.8	496.0	490.2	484.3	478.5	470.4	460.2	450.0	439.7	429.4	421.2
57.5°	452.8	446.6	440.3	434.0	427.9	419.8	409.9	400.0	390.1	380.2	372.2
60°	421.2	414.9	408.4	402.0	395.6	387.5	377.6	367.7	357.9	348.0	340.0
62.5°	387.7	381.6	375.5	369.3	363.2	355.2	345.2	335.2	325.1	315.1	307.7
65°	339.8	333.6	327.3	321.2	314.9	307.0	297.3	287.6	277.9	268.2	260.9
67.5°	292.2	286.0	279.8	273.6	267.4	259.6	250.3	241.1	231.8	222.4	215.8
70°	260.0	253.7	247.6	241.3	235.1	227.4	218.3	209.1	200.0	190.8	185.2
72.5°	228.4	222.3	216.3	210.2	204.1	196.8	188.2	179.7	171.1	162.6	157.3
75°	181.0	175.5	170.0	164.5	159.1	152.5	144.8	137.1	129.4	121.8	117.7
77.5°	134.0	129.5	125.2	120.8	116.4	111.1	105.0	98.9	92.7	86.6	83.7
80°	106.9	102.6	98.2	93.8	89.4	84.7	79.5	74.4	69.3	64.2	62.5
82.5°	80.6	76.7	72.7	68.8	64.8	61.1	57.6	54.1	50.5	47.1	46.3
85°	45.2	42.0	38.7	35.4	32.1	29.9	29.1	28.1	27.3	26.3	26.1
87.5°	15.3	14.6	13.8	13.1	12.4	12.0	12.1	12.2	12.4	12.4	12.6
90°	0.8	2.2	3.6	5.1	6.5	7.8	9.1	10.3	11.6	12.8	13.7
92.5°	12.4	11.3	10.4	9.3	8.3	8.4	9.5	10.6	11.7	12.8	13.7
95°	45.6	45.2	44.6	44.0	43.6	39.8	33.1	26.4	19.6	12.8	13.7
97.5°	95.4	96.3	97.3	98.2	99.2	93.0	79.6	66.2	52.8	39.5	34.4
100°	133.8	134.4	134.8	135.4	135.9	136.6	137.3	138.0	138.7	139.4	112.9
102.5°	172.9	173.6	174.3	174.9	175.6	176.2	176.6	177.0	177.4	177.8	172.9
105°	235.5	236.2	236.9	237.7	238.4	238.8	238.8	238.8	238.8	238.8	238.8
107.5°	300.6	300.6	300.6	300.6	300.6	300.8	301.1	301.5	301.8	302.2	302.2
110°	342.9	342.9	342.9	342.9	342.9	343.1	343.4	343.8	344.1	344.5	344.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	382.6	383.1	383.5	383.9	384.4	384.7	384.9	385.1	385.3	385.6	384.8
115°	442.3	443.1	444.0	444.9	445.8	446.3	446.6	446.7	446.9	447.0	446.3
117.5°	504.0	503.9	503.9	503.8	503.8	504.1	504.8	505.5	506.1	506.8	505.9
120°	542.4	542.2	542.0	541.9	541.7	541.9	542.4	543.0	543.4	544.0	543.7
122.5°	576.4	577.0	577.7	578.4	579.1	579.6	579.8	580.0	580.3	580.5	580.2
125°	628.9	630.2	631.4	632.6	633.9	634.5	634.5	634.5	634.5	634.5	633.8
127.5°	679.1	680.0	680.9	681.8	682.6	683.0	682.9	682.9	682.7	682.6	682.2
130°	709.9	710.7	711.6	712.5	713.4	713.9	714.2	714.3	714.5	714.6	714.2
132.5°	740.6	741.6	742.7	743.7	744.7	745.0	744.7	744.3	743.9	743.5	743.4
135°	784.3	785.4	786.5	787.6	788.6	789.0	788.6	788.3	787.9	787.6	787.2
137.5°	824.6	825.5	826.4	827.4	828.3	828.6	828.3	828.0	827.6	827.3	827.4
140°	850.9	851.2	851.6	851.9	852.3	852.4	852.2	852.0	851.8	851.7	852.0
142.5°	874.6	874.8	875.0	875.2	875.4	875.7	875.9	876.2	876.4	876.6	876.7
145°	909.3	909.7	910.1	910.5	910.8	910.9	910.9	910.9	910.9	910.9	911.2
147.5°	939.8	939.8	939.7	939.6	939.5	939.6	939.8	940.0	940.2	940.4	940.6
150°	959.0	958.7	958.3	958.0	957.6	957.6	958.0	958.3	958.7	959.0	959.4
152.5°	977.6	976.8	976.0	975.3	974.5	974.3	974.6	975.0	975.3	975.7	976.0
155°	1001.5	1000.4	999.3	998.3	997.2	996.9	997.2	997.6	997.9	998.3	998.8
157.5°	1019.9	1019.3	1018.7	1018.0	1017.3	1017.1	1017.1	1017.1	1017.2	1017.2	1017.8
160°	1032.8	1031.7	1030.6	1029.5	1028.5	1028.0	1028.2	1028.4	1028.6	1028.7	1029.4
162.5°	1043.0	1042.0	1040.8	1039.8	1038.7	1038.2	1038.5	1038.6	1038.8	1038.9	1040.0
165°	1056.8	1055.7	1054.6	1053.6	1052.5	1052.0	1052.3	1052.4	1052.6	1052.7	1053.8
167.5°	1067.0	1066.0	1064.9	1063.7	1062.6	1062.2	1062.3	1062.5	1062.7	1062.9	1064.1
170°	1072.8	1071.6	1070.3	1069.1	1067.8	1067.3	1067.5	1067.6	1067.8	1068.0	1069.4
172.5°	1076.7	1075.4	1074.1	1072.9	1071.7	1071.2	1071.5	1071.8	1072.1	1072.5	1073.7
175°	1080.8	1079.7	1078.6	1077.6	1076.5	1076.1	1076.3	1076.4	1076.7	1076.8	1078.2
177.5°	1082.8	1081.9	1081.0	1080.1	1079.3	1079.0	1079.1	1079.3	1079.3	1079.5	1080.5
180°	1080.8	1080.8	1080.8	1080.8	1080.8	1080.8	1080.8	1080.8	1080.8	1080.8	1080.8



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3
2.5°	1085.6	1087.1	1088.5	1089.3	1089.1	1088.9	1088.8	1088.6
5°	1079.0	1080.8	1082.6	1083.4	1083.0	1082.6	1082.3	1081.9
7.5°	1065.6	1066.8	1068.1	1068.5	1068.1	1067.7	1067.3	1066.9
10°	1054.2	1054.7	1055.3	1055.3	1054.7	1054.2	1053.6	1053.1
12.5°	1038.1	1038.5	1038.9	1038.7	1037.8	1037.0	1036.2	1035.3
15°	1011.6	1011.4	1011.2	1010.3	1008.7	1007.0	1005.4	1003.7
17.5°	978.5	977.6	976.7	975.6	974.2	972.9	971.5	970.2
20°	954.2	953.2	952.4	951.1	949.4	947.8	946.1	944.5
22.5°	930.0	928.3	926.5	924.9	923.5	922.2	920.8	919.5
25°	890.4	888.0	885.7	883.4	881.4	879.4	877.4	875.4
27.5°	847.5	844.1	840.8	838.2	836.3	834.3	832.4	830.4
30°	816.8	812.6	808.3	805.5	803.8	802.2	800.5	798.8
32.5°	787.0	782.3	777.7	774.3	772.2	770.2	768.0	766.0
35°	740.5	735.2	729.9	726.0	723.4	720.9	718.4	715.7
37.5°	692.1	685.6	679.3	674.9	672.4	669.9	667.4	665.0
40°	659.9	653.0	646.0	641.4	639.3	637.1	634.9	632.7
42.5°	628.3	621.6	615.0	610.0	606.8	603.6	600.3	597.1
45°	577.7	570.5	563.1	558.1	555.3	552.6	549.9	547.1
47.5°	527.8	520.2	512.7	507.4	504.4	501.4	498.3	495.3
50°	493.9	486.2	478.6	473.3	470.6	467.9	465.1	462.4
52.5°	461.8	453.5	445.3	439.7	437.0	434.3	431.6	428.8
55°	413.0	404.8	396.6	390.9	388.1	385.2	382.2	379.3
57.5°	364.2	356.2	348.1	342.8	340.2	337.5	335.0	332.4
60°	331.9	323.8	315.8	310.5	307.7	305.0	302.2	299.4
62.5°	300.2	292.7	285.3	280.2	277.4	274.6	272.0	269.2
65°	253.6	246.3	238.9	233.9	231.2	228.5	225.7	222.9
67.5°	209.1	202.4	195.7	191.2	189.1	186.9	184.7	182.5
70°	179.5	173.9	168.2	164.3	162.1	159.9	157.7	155.5
72.5°	152.1	146.9	141.6	138.3	136.8	135.4	134.0	132.5
75°	113.8	109.7	105.7	103.1	101.7	100.4	99.2	97.9
77.5°	80.9	78.1	75.3	73.4	72.5	71.5	70.6	69.6
80°	60.9	59.3	57.6	56.6	56.2	55.8	55.5	55.1
82.5°	45.6	44.8	44.0	43.5	43.3	43.1	42.9	42.6
85°	26.0	25.7	25.6	25.4	25.2	25.0	24.9	24.7
87.5°	12.8	13.0	13.2	13.2	13.2	13.2	13.1	13.1
90°	14.6	15.5	16.4	17.1	17.7	18.1	18.7	19.3
92.5°	14.6	15.5	16.4	17.0	17.2	17.4	17.7	18.0
95°	14.6	15.5	16.4	16.8	16.8	16.8	16.8	16.8
97.5°	29.4	24.3	19.3	16.8	16.8	16.8	16.8	16.8
100°	86.3	59.8	33.3	19.6	18.9	18.2	17.5	16.8
102.5°	167.8	162.8	157.8	149.2	137.1	125.0	112.9	100.8
105°	238.8	238.8	238.8	238.7	238.5	238.3	238.1	238.0
107.5°	302.3	302.3	302.4	302.1	301.6	301.0	300.5	300.0
110°	343.4	342.9	342.4	342.2	342.4	342.5	342.7	342.9



TEST NUMBER: P333690-927

CATALOG NUMBER: S125RDIW-S850D1050U927-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	384.2	383.5	382.9	382.4	382.1	381.8	381.6	381.4
115°	445.6	444.9	444.2	443.3	442.3	441.2	440.1	439.0
117.5°	505.0	504.1	503.1	502.4	502.0	501.5	501.1	500.6
120°	543.3	543.0	542.6	541.9	541.1	540.2	539.3	538.4
122.5°	579.8	579.5	579.1	578.5	577.4	576.4	575.4	574.3
125°	633.1	632.4	631.7	631.1	630.6	630.0	629.5	628.9
127.5°	681.8	681.4	681.0	680.2	678.9	677.6	676.2	674.9
130°	713.6	713.0	712.5	711.8	710.9	710.0	709.2	708.3
132.5°	743.3	743.1	743.1	742.6	741.7	740.8	739.9	739.0
135°	786.9	786.5	786.2	785.4	784.3	783.3	782.2	781.2
137.5°	827.4	827.5	827.6	827.2	826.2	825.3	824.4	823.5
140°	852.4	852.7	853.1	852.7	851.7	850.6	849.5	848.4
142.5°	876.8	876.9	876.9	876.5	875.4	874.3	873.2	872.2
145°	911.3	911.5	911.6	911.2	910.1	909.1	908.0	907.0
147.5°	940.9	941.1	941.3	940.8	939.4	938.2	936.9	935.6
150°	959.7	960.1	960.4	959.9	958.5	957.0	955.6	954.2
152.5°	976.4	976.8	977.1	976.7	975.3	974.1	972.8	971.5
155°	999.3	999.9	1000.4	1000.0	998.5	997.1	995.7	994.3
157.5°	1018.4	1018.9	1019.5	1019.1	1017.6	1016.2	1014.8	1013.4
160°	1030.2	1030.9	1031.6	1031.2	1029.8	1028.4	1027.0	1025.6
162.5°	1041.0	1042.0	1043.0	1042.7	1041.1	1039.6	1038.0	1036.4
165°	1054.9	1056.0	1057.0	1056.9	1055.4	1054.0	1052.6	1051.1
167.5°	1065.4	1066.7	1068.0	1067.9	1066.2	1064.6	1063.0	1061.4
170°	1070.9	1072.3	1073.7	1073.6	1072.0	1070.4	1068.8	1067.1
172.5°	1075.1	1076.3	1077.6	1077.4	1075.9	1074.2	1072.6	1071.0
175°	1079.7	1081.1	1082.5	1082.4	1080.8	1079.2	1077.6	1076.0
177.5°	1081.5	1082.5	1083.5	1083.5	1082.3	1081.2	1080.1	1078.9
180°	1080.8	1080.8	1080.8	1080.8	1080.8	1080.8	1080.8	1080.8

(END OF REPORT)