

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: P333686-930

Luminaire Tested: **S125RDIW-S850D770U930-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333686-930
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-S850D770U930-4F0-1E-UDD-F
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 770 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5152.8 lumens
Efficiency: N/A
Efficacy: 114.5 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

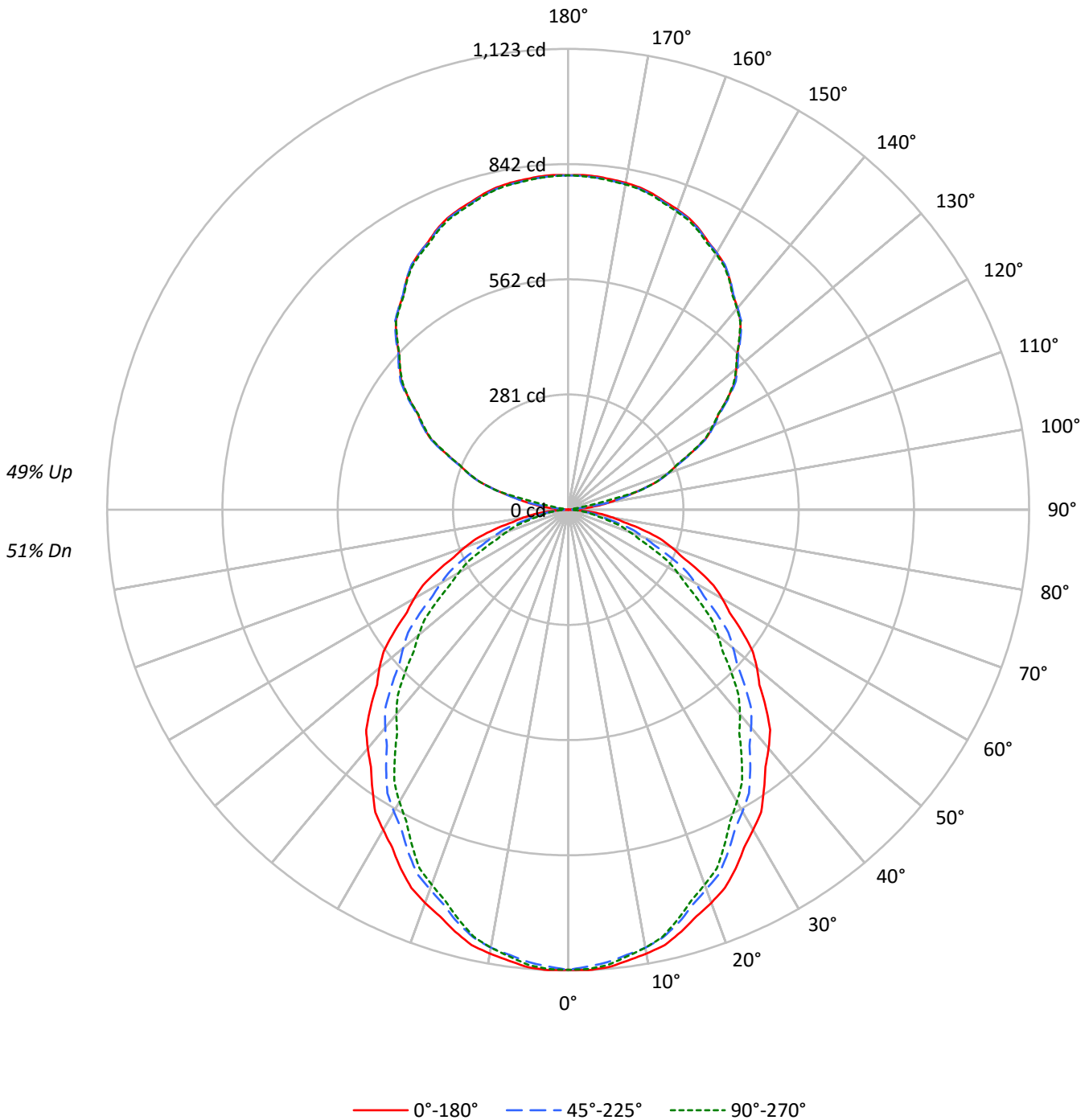
Input Watts (W): 45
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333686-930

CATALOG NUMBER: S125RDIW-S850D770U930-4F0-1E-UDD-F

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	107	107	107	107	99	99	99	99	84	84	84		70	70	70		57	57	57	51
1	98	94	90	87	91	87	84	81	74	72	70		62	60	59		51	50	49	44
2	90	82	76	71	83	76	71	67	65	61	58		55	52	50		45	43	42	37
3	82	73	65	60	76	67	61	56	58	53	49		49	45	42		40	38	36	32
4	75	64	57	51	69	60	53	48	51	46	42		43	39	36		36	33	31	27
5	69	57	49	43	64	54	46	41	46	40	36		39	35	32		33	29	27	24
6	64	52	44	38	59	48	41	36	42	36	32		35	31	28		30	26	24	21
7	59	47	39	33	54	44	36	31	38	32	28		32	28	25		27	24	21	19
8	55	42	35	29	50	40	33	28	34	29	25		30	25	22		25	22	19	17
9	51	39	31	26	47	36	30	25	32	26	22		27	23	20		23	20	17	15
10	48	36	28	24	44	33	27	22	29	24	20		25	21	18		21	18	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7240	7240	7240
5°	7257	7175	7219
10°	7202	7108	7108
15°	7117	6964	6907
20°	7007	6762	6681
25°	6879	6565	6420
30°	6718	6334	6131
35°	6556	6095	5807
40°	6403	5847	5490
45°	6218	5569	5142
50°	6031	5267	4782
55°	5816	4977	4396
60°	5599	4627	3981
65°	5344	4219	3506
70°	5053	3709	3021
75°	4649	3127	2515
80°	4095	2455	2109
85°	3453	2008	1882



TEST NUMBER: P333686-930

CATALOG NUMBER: S125RDIW-S850D770U930-4F0-1E-UDD-F

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.4	2.0
10°-20°	294.6	5.7
20°-30°	427.2	8.3
30°-40°	486.9	9.4
40°-50°	474.6	9.2
50°-60°	399.5	7.8
60°-70°	280.0	5.4
70°-80°	143.9	2.8
80°-90°	38.0	0.7
90°-100°	29.6	0.6
100°-110°	182.5	3.5
110°-120°	331.0	6.4
120°-130°	424.8	8.2
130°-140°	456.9	8.9
140°-150°	428.9	8.3
150°-160°	346.9	6.7
160°-170°	224.4	4.4
170°-180°	77.4	1.5
0°-30°	827.2	16.1
0°-40°	1314.1	25.5
0°-60°	2188.2	42.5
0°-90°	2650.2	51.4
90°-120°	543.2	10.5
90°-150°	1853.8	36.0
90°-180°	2503.0	48.6
0°-180°	5152.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1121	1121	1121	1121	1121	
5°	1119	1116	1107	1115	1114	106
15°	1064	1059	1042	1040	1033	300
25°	965	952	921	910	901	444
35°	832	810	773	749	737	520
45°	681	655	610	577	563	525
55°	516	488	442	405	390	462
65°	350	320	276	243	229	346
75°	186	160	125	107	101	197
85°	47	32	27	26	25	52
90°	1	5	10	13	14	4
95°	34	32	10	12	13	44
105°	178	180	180	180	179	188
115°	334	336	337	335	331	330
125°	474	478	478	476	474	423
135°	591	595	594	592	589	456
145°	686	687	687	687	684	429
155°	755	752	753	754	750	348
165°	797	793	794	797	793	225
175°	815	812	812	816	811	78
180°	815	815	815	815	815	



TEST NUMBER: P333686-930

CATALOG NUMBER: S125RDIW-S850D770U930-4F0-1E-UDD-F

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1121.1	1121.1	1121.1	1121.1	1121.1	1121.1	1121.1	1121.1	1121.1	1121.1	1121.1
2.5°	1123.1	1122.7	1122.2	1121.8	1121.3	1120.3	1118.8	1117.3	1115.8	1114.3	1115.8
5°	1119.4	1118.7	1117.9	1117.1	1116.4	1115.0	1112.9	1110.8	1108.7	1106.7	1108.6
7.5°	1108.4	1107.7	1106.9	1106.2	1105.5	1103.9	1101.5	1098.9	1096.5	1094.0	1095.3
10°	1098.2	1097.6	1097.1	1096.5	1095.9	1094.4	1091.8	1089.1	1086.5	1083.9	1084.3
12.5°	1086.7	1086.0	1085.2	1084.6	1083.9	1081.7	1078.2	1074.6	1071.1	1067.6	1068.0
15°	1064.4	1063.2	1062.1	1060.9	1059.8	1057.3	1053.4	1049.4	1045.5	1041.5	1041.3
17.5°	1039.1	1037.4	1035.7	1034.0	1032.2	1028.8	1023.9	1018.9	1013.9	1008.9	1008.0
20°	1019.5	1017.6	1015.7	1013.8	1011.9	1008.0	1002.0	996.0	989.9	983.9	983.0
22.5°	997.8	995.9	994.0	992.1	990.3	986.2	979.8	973.5	967.2	960.9	959.0
25°	965.3	962.5	959.6	956.8	954.0	949.1	942.2	935.1	928.2	921.3	918.8
27.5°	928.1	924.6	921.2	917.8	914.4	908.9	901.5	894.0	886.6	879.1	875.6
30°	900.9	897.3	893.8	890.2	886.6	880.8	873.0	865.1	857.2	849.3	845.0
32.5°	874.5	870.3	866.2	862.0	857.8	851.7	843.7	835.6	827.5	819.5	814.7
35°	831.5	827.0	822.5	817.9	813.4	806.9	798.5	790.0	781.5	773.1	767.6
37.5°	789.3	783.8	778.4	772.8	767.4	760.3	751.5	742.7	734.0	725.3	718.8
40°	759.5	753.9	748.2	742.6	736.9	729.6	720.6	711.5	702.5	693.5	686.3
42.5°	728.4	722.6	716.8	710.9	705.2	697.7	688.3	679.0	669.6	660.3	653.5
45°	680.8	675.3	669.8	664.4	658.9	651.0	640.7	630.4	620.0	609.7	602.1
47.5°	631.5	625.7	620.0	614.2	608.5	600.4	590.0	579.5	569.1	558.6	550.9
50°	600.3	594.1	587.9	581.7	575.5	567.0	556.3	545.6	534.8	524.2	516.2
52.5°	566.5	560.1	553.8	547.4	541.0	532.8	522.7	512.6	502.4	492.3	483.8
55°	516.5	510.5	504.5	498.5	492.4	484.1	473.6	463.1	452.6	442.0	433.5
57.5°	466.0	459.6	453.1	446.7	440.3	432.0	421.8	411.6	401.5	391.3	383.1
60°	433.5	427.0	420.4	413.8	407.2	398.8	388.7	378.5	368.4	358.2	349.9
62.5°	399.0	392.7	386.5	380.1	373.8	365.6	355.2	345.0	334.6	324.3	316.7
65°	349.7	343.3	336.9	330.5	324.1	315.9	306.0	296.0	286.0	276.1	268.5
67.5°	300.8	294.3	288.0	281.6	275.2	267.2	257.6	248.1	238.6	228.9	222.1
70°	267.6	261.1	254.8	248.3	242.0	234.1	224.7	215.2	205.9	196.4	190.6
72.5°	235.1	228.8	222.6	216.3	210.1	202.5	193.7	184.9	176.1	167.3	161.9
75°	186.3	180.7	175.0	169.3	163.7	156.9	149.0	141.1	133.2	125.3	121.2
77.5°	137.9	133.3	128.8	124.3	119.8	114.4	108.0	101.7	95.4	89.1	86.2
80°	110.1	105.6	101.0	96.5	92.0	87.2	81.9	76.6	71.3	66.0	64.3
82.5°	83.0	78.9	74.8	70.8	66.7	62.9	59.3	55.7	52.0	48.4	47.6
85°	46.6	43.2	39.8	36.4	33.0	30.8	29.9	28.9	28.0	27.1	26.9
87.5°	15.7	14.8	14.0	13.2	12.3	12.0	12.0	12.0	12.1	12.1	12.2
90°	0.6	1.7	2.8	3.8	4.9	5.9	6.8	7.8	8.7	9.7	10.4
92.5°	9.3	8.6	7.8	7.0	6.3	6.4	7.2	8.0	8.8	9.7	10.4
95°	34.4	34.0	33.6	33.3	32.9	30.1	24.9	19.9	14.8	9.7	10.4
97.5°	71.9	72.6	73.4	74.0	74.8	70.1	60.0	49.9	39.8	29.8	25.9
100°	100.9	101.3	101.7	102.1	102.5	103.0	103.5	104.0	104.6	105.1	85.1
102.5°	130.4	130.9	131.4	131.9	132.4	132.8	133.1	133.5	133.8	134.1	130.4
105°	177.6	178.1	178.7	179.2	179.8	180.0	180.0	180.0	180.0	180.0	180.0
107.5°	226.7	226.7	226.7	226.7	226.7	226.8	227.1	227.3	227.6	227.9	227.9
110°	258.5	258.5	258.5	258.5	258.5	258.7	258.9	259.3	259.5	259.8	259.3



TEST NUMBER: P333686-930

CATALOG NUMBER: S125RDIW-S850D770U930-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	288.5	288.9	289.2	289.5	289.8	290.1	290.2	290.4	290.6	290.7	290.2
115°	333.5	334.1	334.8	335.5	336.1	336.6	336.7	336.8	337.0	337.1	336.6
117.5°	380.0	379.9	379.9	379.9	379.8	380.1	380.7	381.2	381.6	382.1	381.5
120°	409.0	408.9	408.7	408.5	408.5	408.5	409.0	409.4	409.8	410.2	409.9
122.5°	434.6	435.1	435.6	436.1	436.7	437.0	437.2	437.3	437.6	437.7	437.5
125°	474.3	475.2	476.1	477.0	478.0	478.4	478.4	478.4	478.4	478.4	477.9
127.5°	512.0	512.7	513.4	514.0	514.7	515.0	514.9	514.9	514.8	514.7	514.4
130°	535.2	535.9	536.5	537.3	537.9	538.3	538.4	538.6	538.7	538.8	538.4
132.5°	558.4	559.2	560.0	560.8	561.6	561.8	561.5	561.2	560.9	560.6	560.5
135°	591.4	592.2	593.0	593.9	594.7	594.9	594.7	594.4	594.1	593.9	593.5
137.5°	621.7	622.5	623.1	623.9	624.5	624.8	624.5	624.3	624.0	623.8	623.9
140°	641.6	641.8	642.1	642.4	642.6	642.7	642.5	642.5	642.3	642.1	642.5
142.5°	659.4	659.6	659.7	659.9	660.1	660.2	660.5	660.6	660.8	661.0	661.0
145°	685.7	685.9	686.2	686.5	686.7	686.9	686.9	686.9	686.9	686.9	687.0
147.5°	708.7	708.6	708.5	708.5	708.4	708.5	708.7	708.7	708.9	709.1	709.2
150°	723.1	722.8	722.6	722.3	722.0	722.0	722.3	722.6	722.8	723.1	723.4
152.5°	737.1	736.5	736.0	735.4	734.7	734.6	734.9	735.2	735.4	735.6	736.0
155°	755.1	754.3	753.5	752.7	752.0	751.6	752.0	752.2	752.4	752.7	753.1
157.5°	769.0	768.6	768.1	767.6	767.1	766.9	766.9	767.0	767.0	767.0	767.4
160°	778.7	777.9	777.1	776.2	775.5	775.1	775.3	775.4	775.5	775.7	776.2
162.5°	786.4	785.6	784.8	784.0	783.2	782.9	783.0	783.2	783.3	783.4	784.2
165°	796.8	796.0	795.2	794.4	793.6	793.3	793.4	793.5	793.7	793.8	794.6
167.5°	804.5	803.7	802.9	802.1	801.2	800.9	801.0	801.1	801.3	801.4	802.3
170°	808.9	808.0	807.0	806.1	805.1	804.7	804.9	805.0	805.1	805.3	806.3
172.5°	811.8	810.9	809.9	808.9	808.0	807.7	808.0	808.2	808.5	808.7	809.6
175°	815.0	814.2	813.3	812.5	811.7	811.4	811.5	811.6	811.8	812.0	813.0
177.5°	816.4	815.7	815.1	814.5	813.8	813.5	813.7	813.8	813.8	814.0	814.7
180°	815.0	815.0	815.0	815.0	815.0	815.0	815.0	815.0	815.0	815.0	815.0



TEST NUMBER: P333686-930

CATALOG NUMBER: S125RDIW-S850D770U930-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1121.1	1121.1	1121.1	1121.1	1121.1	1121.1	1121.1	1121.1
2.5°	1117.3	1118.8	1120.3	1121.0	1120.9	1120.7	1120.5	1120.4
5°	1110.4	1112.3	1114.2	1115.0	1114.6	1114.2	1113.9	1113.5
7.5°	1096.7	1098.0	1099.3	1099.7	1099.3	1098.9	1098.5	1098.0
10°	1084.9	1085.5	1086.1	1086.1	1085.5	1084.9	1084.3	1083.9
12.5°	1068.4	1068.8	1069.2	1069.0	1068.1	1067.2	1066.4	1065.5
15°	1041.1	1040.9	1040.7	1039.8	1038.1	1036.4	1034.7	1033.0
17.5°	1007.1	1006.2	1005.2	1004.0	1002.7	1001.3	999.9	998.5
20°	982.0	981.0	980.2	978.8	977.1	975.4	973.7	972.1
22.5°	957.2	955.4	953.5	951.9	950.5	949.1	947.7	946.3
25°	916.4	914.0	911.5	909.2	907.1	905.1	903.0	900.9
27.5°	872.2	868.8	865.4	862.7	860.7	858.7	856.7	854.7
30°	840.7	836.3	831.9	829.0	827.3	825.6	823.9	822.1
32.5°	809.9	805.1	800.4	796.9	794.8	792.6	790.4	788.3
35°	762.1	756.7	751.2	747.2	744.5	741.9	739.3	736.6
37.5°	712.2	705.6	699.1	694.6	692.0	689.4	686.9	684.4
40°	679.1	672.1	664.9	660.1	657.9	655.7	653.4	651.2
42.5°	646.6	639.8	632.9	627.8	624.5	621.2	617.8	614.6
45°	594.6	587.1	579.5	574.4	571.5	568.8	565.9	563.0
47.5°	543.2	535.4	527.7	522.2	519.1	516.0	512.8	509.7
50°	508.3	500.4	492.5	487.1	484.4	481.5	478.7	475.9
52.5°	475.3	466.8	458.3	452.6	449.8	446.9	444.2	441.3
55°	425.1	416.6	408.1	402.4	399.4	396.4	393.4	390.4
57.5°	374.8	366.6	358.2	352.8	350.1	347.4	344.8	342.1
60°	341.6	333.3	325.1	319.5	316.7	313.9	311.0	308.2
62.5°	308.9	301.3	293.6	288.4	285.5	282.7	279.9	277.0
65°	261.0	253.5	245.9	240.8	237.9	235.1	232.3	229.4
67.5°	215.2	208.3	201.4	196.8	194.6	192.3	190.0	187.8
70°	184.7	179.0	173.1	169.1	166.8	164.5	162.3	160.0
72.5°	156.5	151.2	145.8	142.4	140.8	139.3	137.9	136.3
75°	117.1	112.9	108.8	106.1	104.7	103.4	102.1	100.8
77.5°	83.2	80.4	77.5	75.6	74.6	73.6	72.6	71.7
80°	62.7	61.0	59.3	58.2	57.9	57.5	57.1	56.7
82.5°	46.9	46.1	45.2	44.8	44.5	44.4	44.1	43.9
85°	26.7	26.5	26.3	26.2	25.9	25.8	25.6	25.4
87.5°	12.4	12.5	12.6	12.6	12.6	12.6	12.5	12.4
90°	11.0	11.7	12.3	12.9	13.3	13.7	14.1	14.5
92.5°	11.0	11.7	12.3	12.8	13.0	13.1	13.4	13.5
95°	11.0	11.7	12.3	12.7	12.7	12.7	12.7	12.7
97.5°	22.2	18.3	14.6	12.7	12.7	12.7	12.7	12.7
100°	65.1	45.1	25.1	14.8	14.3	13.8	13.2	12.7
102.5°	126.5	122.8	119.0	112.5	103.4	94.2	85.1	76.0
105°	180.0	180.0	180.0	179.9	179.9	179.7	179.5	179.4
107.5°	228.0	228.0	228.0	227.8	227.4	227.0	226.6	226.2
110°	258.9	258.5	258.1	258.0	258.1	258.3	258.4	258.5



TEST NUMBER: P333686-930

CATALOG NUMBER: S125RDIW-S850D770U930-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	289.7	289.2	288.6	288.3	288.1	288.0	287.7	287.6
115°	336.0	335.5	334.9	334.3	333.5	332.6	331.8	331.0
117.5°	380.7	380.1	379.4	378.9	378.5	378.1	377.8	377.5
120°	409.7	409.4	409.1	408.6	408.0	407.3	406.7	405.9
122.5°	437.2	436.9	436.7	436.1	435.4	434.6	433.8	433.0
125°	477.4	476.9	476.3	475.8	475.4	475.0	474.7	474.3
127.5°	514.1	513.8	513.6	512.9	511.8	510.9	509.9	508.9
130°	538.1	537.7	537.3	536.7	536.1	535.4	534.7	534.0
132.5°	560.4	560.4	560.3	559.9	559.2	558.6	557.9	557.3
135°	593.3	593.0	592.8	592.2	591.4	590.6	589.8	589.0
137.5°	623.9	623.9	624.0	623.7	623.0	622.3	621.6	620.9
140°	642.7	642.9	643.3	642.9	642.1	641.4	640.6	639.8
142.5°	661.1	661.2	661.2	660.9	660.1	659.3	658.4	657.6
145°	687.1	687.3	687.4	687.1	686.2	685.4	684.7	683.9
147.5°	709.4	709.6	709.7	709.3	708.4	707.4	706.5	705.5
150°	723.7	723.9	724.2	723.8	722.7	721.6	720.6	719.5
152.5°	736.2	736.5	736.8	736.4	735.4	734.5	733.5	732.5
155°	753.5	753.9	754.3	754.0	752.9	751.9	750.8	749.7
157.5°	767.8	768.3	768.7	768.3	767.3	766.2	765.2	764.1
160°	776.7	777.3	777.8	777.6	776.5	775.4	774.4	773.2
162.5°	784.9	785.6	786.4	786.2	785.1	783.8	782.7	781.5
165°	795.4	796.2	797.0	796.9	795.8	794.8	793.7	792.6
167.5°	803.3	804.3	805.3	805.2	804.0	802.7	801.5	800.3
170°	807.4	808.5	809.6	809.5	808.3	807.1	805.8	804.7
172.5°	810.6	811.5	812.5	812.4	811.2	810.0	808.8	807.6
175°	814.1	815.1	816.2	816.1	815.0	813.8	812.5	811.3
177.5°	815.5	816.2	817.0	816.9	816.0	815.2	814.3	813.5
180°	815.0	815.0	815.0	815.0	815.0	815.0	815.0	815.0

(END OF REPORT)