

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: P333687-930

Luminaire Tested: **S125RDIW-S850D770U930-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333687-930  
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-S850D770U930-4F0-1E-UDD-F1  
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, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4820.4 lumens  
Efficiency: N/A  
Efficacy: 107.1 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

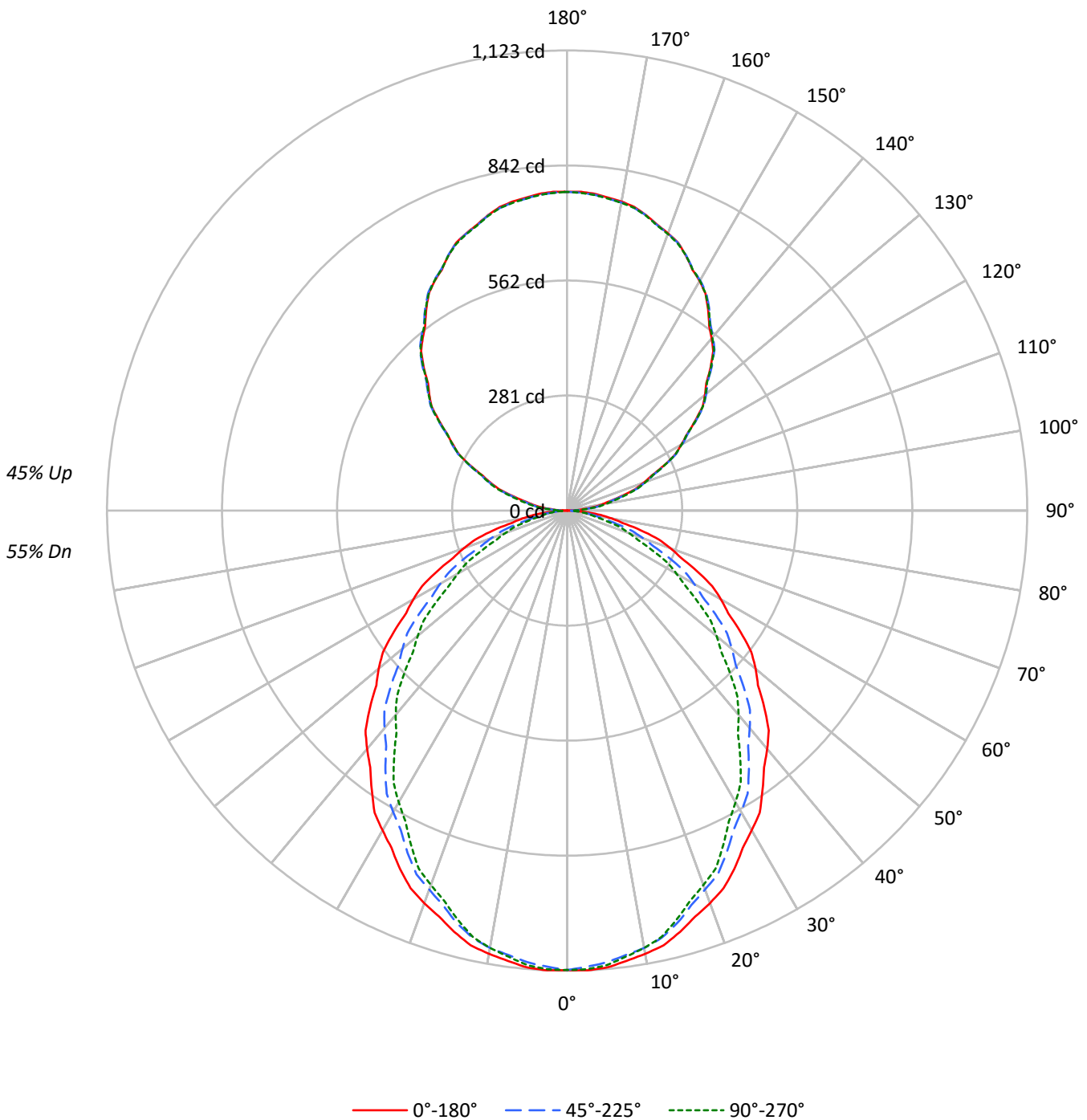
Input Watts (W): 45  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	108	108	108	108	101	101	101	101	86	86	86	73	73	73	61	61	61	55
1	99	95	91	88	92	88	85	82	76	73	71	65	63	61	54	53	52	47
2	90	83	77	72	84	77	72	68	67	63	59	57	54	51	48	46	44	40
3	83	73	66	60	77	68	62	57	59	54	50	51	47	44	43	40	38	34
4	76	65	57	51	70	61	54	48	53	47	43	45	41	38	38	35	33	29
5	70	58	50	44	64	54	47	42	47	42	37	41	36	33	34	31	29	25
6	64	52	44	38	59	49	42	36	43	37	33	37	32	29	31	28	25	22
7	59	47	39	34	55	44	37	32	39	33	29	34	29	26	29	25	22	20
8	55	43	35	30	51	40	33	28	35	30	26	31	26	23	26	23	20	18
9	51	39	32	27	48	37	30	25	32	27	23	28	24	21	24	21	18	16
10	48	36	29	24	45	34	27	23	30	25	21	26	22	19	23	19	17	15

**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



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	105.4	2.2
10°-20°	294.6	6.1
20°-30°	427.2	8.9
30°-40°	486.9	10.1
40°-50°	474.6	9.8
50°-60°	399.5	8.3
60°-70°	280.0	5.8
70°-80°	143.9	3.0
80°-90°	38.1	0.8
90°-100°	52.1	1.1
100°-110°	153.8	3.2
110°-120°	260.5	5.4
120°-130°	342.9	7.1
130°-140°	384.2	8.0
140°-150°	376.6	7.8
150°-160°	316.3	6.6
160°-170°	210.2	4.4
170°-180°	73.6	1.5
0°-30°	827.2	17.2
0°-40°	1314.1	27.3
0°-60°	2188.2	45.4
0°-90°	2650.2	55.0
90°-120°	466.4	9.7
90°-150°	1570.1	32.6
90°-180°	2170.0	45.0
0°-180°	4820.4	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°	39	41	47	51	52	42
105°	138	141	145	148	150	147
115°	261	263	264	264	263	258
125°	381	384	385	384	383	341
135°	495	499	499	499	497	381
145°	600	602	604	604	602	375
155°	686	686	687	689	686	316
165°	746	745	746	748	744	210
175°	776	774	774	777	773	74
180°	778	778	778	778	778	



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**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	6.0	6.8	7.8	8.7	9.7	10.4
92.5°	14.7	15.4	16.1	16.9	17.7	18.6	19.8	21.0	22.1	23.2	24.1
95°	39.4	39.6	39.9	40.1	40.4	41.3	42.6	43.9	45.2	46.6	47.5
97.5°	65.4	65.5	65.6	65.7	65.8	66.8	68.6	70.5	72.3	74.2	75.1
100°	84.7	84.7	84.7	84.7	84.7	85.6	87.3	89.1	90.8	92.6	93.8
102.5°	105.6	106.1	106.6	107.1	107.7	108.4	109.3	110.2	111.0	111.9	113.3
105°	138.0	138.7	139.3	140.0	140.7	141.5	142.3	143.0	143.8	144.6	145.4
107.5°	173.8	174.5	175.2	175.9	176.5	177.2	177.8	178.4	179.0	179.6	180.0
110°	198.5	199.2	199.8	200.6	201.2	201.7	202.1	202.5	202.9	203.3	203.7



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	223.7	224.0	224.4	224.8	225.1	225.5	226.0	226.6	227.1	227.6	227.8
115°	260.9	261.4	262.0	262.4	263.0	263.4	263.7	263.9	264.2	264.5	264.3
117.5°	298.2	298.4	298.6	298.9	299.1	299.4	299.6	299.9	300.1	300.4	300.4
120°	321.4	322.0	322.7	323.4	324.1	324.5	324.6	324.7	324.9	325.0	325.0
122.5°	346.6	346.8	347.1	347.3	347.6	347.8	348.1	348.5	348.9	349.2	349.1
125°	380.7	381.5	382.3	383.1	383.9	384.4	384.5	384.7	384.8	384.9	384.7
127.5°	417.0	417.4	417.9	418.4	418.8	419.1	419.3	419.5	419.6	419.8	419.6
130°	438.8	439.4	440.2	440.8	441.5	442.0	442.2	442.5	442.8	443.0	442.9
132.5°	460.6	461.7	462.8	463.9	465.0	465.5	465.5	465.4	465.4	465.3	465.2
135°	495.0	495.9	496.7	497.5	498.3	498.8	498.9	499.0	499.2	499.3	499.3
137.5°	527.5	528.3	529.0	529.9	530.7	531.2	531.5	531.7	532.1	532.4	532.6
140°	548.4	549.0	549.7	550.3	551.1	551.5	552.0	552.4	552.8	553.2	553.4
142.5°	569.2	569.7	570.3	570.9	571.4	571.9	572.5	573.0	573.5	574.0	574.1
145°	599.8	600.3	600.9	601.4	601.9	602.4	602.8	603.2	603.6	604.1	604.1
147.5°	628.1	628.4	628.7	629.0	629.3	629.6	629.9	630.2	630.6	630.9	631.2
150°	647.0	646.9	646.7	646.6	646.5	646.7	647.2	647.8	648.2	648.8	648.8
152.5°	662.5	662.7	662.8	663.1	663.2	663.4	663.7	663.9	664.1	664.3	664.6
155°	686.3	686.3	686.3	686.3	686.3	686.4	686.6	686.6	686.8	687.0	687.5
157.5°	707.7	707.4	707.0	706.8	706.5	706.4	706.5	706.6	706.8	706.9	707.4
160°	720.2	719.8	719.4	719.0	718.6	718.4	718.6	718.8	718.8	719.0	719.6
162.5°	731.4	731.1	730.8	730.5	730.2	730.0	730.1	730.1	730.1	730.2	730.8
165°	746.2	746.0	745.8	745.4	745.2	745.1	745.3	745.3	745.5	745.7	746.2
167.5°	758.9	758.3	757.7	757.2	756.7	756.4	756.4	756.4	756.4	756.4	757.2
170°	765.6	765.1	764.5	764.0	763.4	763.2	763.2	763.2	763.2	763.2	764.0
172.5°	770.5	769.9	769.4	768.8	768.3	768.0	768.0	768.0	768.0	768.0	768.8
175°	775.9	775.3	774.9	774.3	773.7	773.5	773.5	773.5	773.5	773.5	774.3
177.5°	778.7	778.3	777.8	777.4	777.0	776.7	776.6	776.5	776.4	776.2	776.9
180°	777.7	777.7	777.7	777.7	777.7	777.7	777.7	777.7	777.7	777.7	777.7



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**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	12.4	12.9	13.3	13.7	14.1	14.5
92.5°	25.0	25.9	26.8	27.4	27.7	28.0	28.3	28.5
95°	48.5	49.4	50.4	51.0	51.3	51.5	51.8	52.0
97.5°	76.0	76.9	77.8	78.3	78.4	78.6	78.8	78.9
100°	95.0	96.2	97.4	98.2	98.5	98.7	99.0	99.2
102.5°	114.6	115.9	117.2	118.1	118.5	118.9	119.2	119.6
105°	146.3	147.1	147.9	148.5	148.9	149.3	149.7	150.1
107.5°	180.4	180.8	181.2	181.4	181.4	181.4	181.3	181.3
110°	204.2	204.6	205.0	205.1	205.0	204.8	204.7	204.6





TEST NUMBER: P333687-930

CATALOG NUMBER: S125RDIW-S850D770U930-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	228.0	228.1	228.3	228.3	228.0	227.8	227.6	227.3
115°	264.2	264.1	263.9	263.8	263.7	263.6	263.4	263.3
117.5°	300.5	300.6	300.8	300.5	300.0	299.5	298.9	298.4
120°	325.0	325.0	325.0	324.7	324.2	323.7	323.1	322.6
122.5°	349.0	348.9	348.8	348.5	348.1	347.6	347.2	346.8
125°	384.4	384.1	383.8	383.7	383.5	383.4	383.3	383.1
127.5°	419.6	419.4	419.2	419.1	418.8	418.5	418.2	418.0
130°	442.8	442.6	442.5	442.3	442.1	441.7	441.5	441.2
132.5°	465.0	464.9	464.8	464.5	464.1	463.7	463.4	463.0
135°	499.3	499.3	499.3	499.0	498.5	498.0	497.4	496.9
137.5°	532.7	532.9	533.0	532.7	532.1	531.4	530.8	530.0
140°	553.8	554.0	554.2	554.1	553.4	552.7	552.0	551.4
142.5°	574.3	574.5	574.6	574.4	573.7	573.1	572.3	571.7
145°	604.1	604.1	604.1	603.8	603.4	603.0	602.6	602.2
147.5°	631.5	631.9	632.2	631.9	631.0	630.1	629.2	628.3
150°	648.8	648.8	648.8	648.7	648.4	648.2	647.8	647.6
152.5°	665.0	665.3	665.6	665.5	665.0	664.6	664.1	663.6
155°	688.0	688.5	689.1	689.0	688.4	687.7	687.0	686.3
157.5°	708.0	708.5	709.1	708.9	708.0	707.1	706.2	705.3
160°	720.1	720.6	721.1	721.1	720.4	719.7	719.1	718.4
162.5°	731.5	732.1	732.7	732.7	731.9	731.1	730.3	729.5
165°	746.7	747.3	747.8	747.6	746.9	746.1	745.3	744.4
167.5°	758.1	758.9	759.6	759.6	758.8	758.0	757.2	756.3
170°	764.8	765.6	766.5	766.4	765.4	764.5	763.5	762.6
172.5°	769.6	770.5	771.3	771.3	770.5	769.6	768.7	767.9
175°	775.1	775.9	776.7	776.7	775.7	774.8	773.8	772.9
177.5°	777.6	778.2	778.9	778.8	778.0	777.3	776.6	775.8
180°	777.7	777.7	777.7	777.7	777.7	777.7	777.7	777.7

(END OF REPORT)