

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: P333683-930

Luminaire Tested: **S125RDIW-S850D470U930-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333683-930  
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-S850D470U930-4F0-1E-UDD-F1  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 470 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3974.6 lumens  
Efficiency: N/A  
Efficacy: 105.4 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-Direct

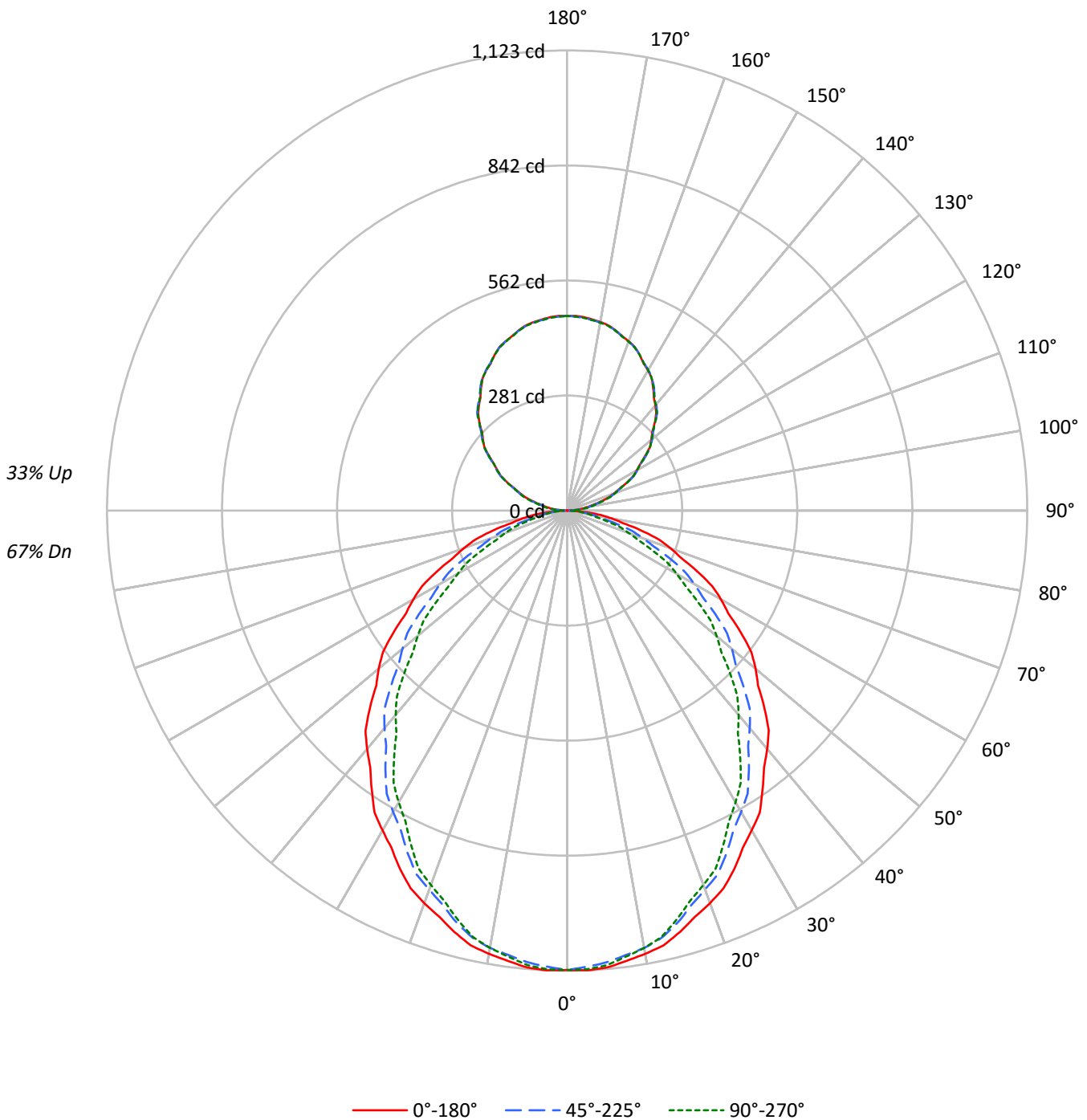
Input Watts (W): 37.7  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	111	111	111	111	105	105	105	105	93	93	93	82	82	82	71	71	71	67
1	102	98	94	90	96	92	89	86	82	79	77	72	70	69	64	62	61	57
2	93	85	79	74	87	81	75	71	72	68	64	64	61	58	56	54	52	48
3	85	75	68	62	80	71	65	59	64	59	54	57	53	49	50	47	44	41
4	78	67	59	53	73	63	56	51	57	51	47	51	46	42	45	41	38	35
5	72	60	52	46	67	57	49	44	51	45	40	46	41	37	41	37	34	31
6	66	54	46	40	62	51	44	38	46	40	35	41	36	33	37	33	30	27
7	61	49	41	35	58	47	39	34	42	36	31	38	33	29	34	30	27	24
8	57	45	37	31	54	42	35	30	38	32	28	35	30	26	31	27	24	22
9	53	41	33	28	50	39	32	27	35	29	25	32	27	23	29	25	22	20
10	50	38	30	25	47	36	29	24	33	27	23	30	25	21	27	23	20	18

**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	2.7
10°-20°	294.6	7.4
20°-30°	427.2	10.7
30°-40°	486.9	12.2
40°-50°	474.6	11.9
50°-60°	399.5	10.1
60°-70°	280.0	7.0
70°-80°	143.9	3.6
80°-90°	37.4	0.9
90°-100°	31.8	0.8
100°-110°	93.9	2.4
110°-120°	159.1	4.0
120°-130°	209.4	5.3
130°-140°	234.6	5.9
140°-150°	229.9	5.8
150°-160°	193.1	4.9
160°-170°	128.4	3.2
170°-180°	44.9	1.1
0°-30°	827.2	20.8
0°-40°	1314.1	33.1
0°-60°	2188.2	55.1
0°-90°	2649.6	66.7
90°-120°	284.8	7.2
90°-150°	958.7	24.1
90°-180°	1325.0	33.3
0°-180°	3974.6	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°	0	3	6	8	9	3
95°	24	25	28	31	32	26
105°	84	86	88	90	92	90
115°	159	161	162	161	161	157
125°	232	235	235	234	234	208
135°	302	304	305	305	303	233
145°	366	368	369	369	368	229
155°	419	419	419	421	419	193
165°	456	455	455	457	454	128
175°	474	472	472	474	472	45
180°	475	475	475	475	475	



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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	13.8	12.9	12.0	11.5	11.4	11.4	11.4	11.3	11.4
90°	0.4	1.1	1.7	2.4	3.0	3.6	4.2	4.7	5.3	6.0	6.4
92.5°	9.0	9.4	9.9	10.4	10.8	11.3	12.1	12.8	13.5	14.2	14.8
95°	24.1	24.2	24.4	24.5	24.7	25.2	26.0	26.8	27.6	28.5	29.0
97.5°	39.9	39.9	40.0	40.1	40.2	40.8	41.9	43.0	44.2	45.3	45.8
100°	51.8	51.8	51.8	51.8	51.8	52.3	53.3	54.4	55.4	56.5	57.3
102.5°	64.4	64.7	65.1	65.5	65.8	66.2	66.8	67.3	67.8	68.3	69.1
105°	84.2	84.6	85.0	85.4	85.9	86.3	86.8	87.3	87.8	88.3	88.8
107.5°	106.2	106.6	107.0	107.4	107.8	108.2	108.5	108.9	109.3	109.7	109.9
110°	121.2	121.6	122.1	122.5	122.9	123.2	123.4	123.7	123.9	124.2	124.4



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	136.6	136.8	137.0	137.2	137.5	137.7	138.0	138.4	138.6	138.9	139.1
115°	159.2	159.6	160.0	160.3	160.6	160.9	161.0	161.2	161.3	161.5	161.4
117.5°	182.1	182.1	182.3	182.5	182.6	182.8	183.0	183.0	183.2	183.4	183.4
120°	196.2	196.7	197.1	197.5	197.9	198.1	198.2	198.3	198.4	198.4	198.4
122.5°	211.6	211.7	211.9	212.1	212.1	212.4	212.5	212.8	213.0	213.2	213.1
125°	232.4	232.9	233.4	233.9	234.4	234.7	234.8	234.9	235.0	235.1	234.9
127.5°	254.6	254.9	255.2	255.4	255.8	255.9	256.0	256.1	256.2	256.3	256.2
130°	267.9	268.3	268.7	269.1	269.5	269.9	270.0	270.2	270.4	270.5	270.4
132.5°	281.2	281.8	282.6	283.2	283.9	284.2	284.2	284.1	284.1	284.1	284.0
135°	302.2	302.8	303.3	303.8	304.3	304.5	304.6	304.7	304.8	304.8	304.8
137.5°	322.0	322.5	323.0	323.5	324.0	324.3	324.5	324.7	324.8	325.1	325.1
140°	334.8	335.2	335.6	336.0	336.4	336.8	337.0	337.3	337.5	337.8	337.9
142.5°	347.5	347.8	348.2	348.5	348.9	349.2	349.5	349.8	350.2	350.5	350.6
145°	366.2	366.6	366.9	367.2	367.5	367.8	368.0	368.3	368.5	368.8	368.8
147.5°	383.5	383.7	383.8	384.0	384.3	384.4	384.6	384.8	385.0	385.2	385.4
150°	395.0	394.9	394.8	394.8	394.7	394.8	395.2	395.5	395.8	396.2	396.2
152.5°	404.5	404.6	404.7	404.8	405.0	405.0	405.2	405.4	405.4	405.6	405.8
155°	419.1	419.1	419.1	419.1	419.1	419.1	419.1	419.2	419.3	419.4	419.7
157.5°	432.0	431.9	431.7	431.5	431.3	431.3	431.4	431.5	431.5	431.6	431.9
160°	439.8	439.5	439.2	439.0	438.7	438.6	438.7	438.8	438.9	439.0	439.4
162.5°	446.5	446.4	446.2	446.0	445.8	445.7	445.7	445.7	445.8	445.8	446.2
165°	455.6	455.4	455.3	455.1	454.9	454.9	455.0	455.1	455.2	455.3	455.6
167.5°	463.3	463.0	462.7	462.4	462.0	461.9	461.9	461.9	461.9	461.9	462.4
170°	467.4	467.1	466.8	466.4	466.1	465.9	465.9	465.9	465.9	465.9	466.4
172.5°	470.4	470.1	469.8	469.4	469.1	469.0	469.0	469.0	469.0	469.0	469.4
175°	473.8	473.4	473.0	472.7	472.4	472.2	472.2	472.2	472.2	472.2	472.7
177.5°	475.4	475.2	474.9	474.7	474.3	474.2	474.2	474.1	474.0	473.9	474.3
180°	474.8	474.8	474.8	474.8	474.8	474.8	474.8	474.8	474.8	474.8	474.8



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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°	11.5	11.6	11.7	11.7	11.6	11.5	11.3	11.3
90°	6.8	7.2	7.6	7.9	8.2	8.4	8.6	8.9
92.5°	15.2	15.8	16.4	16.7	16.9	17.0	17.3	17.4
95°	29.6	30.2	30.7	31.1	31.3	31.5	31.6	31.8
97.5°	46.4	47.0	47.5	47.8	47.9	48.0	48.1	48.2
100°	58.0	58.8	59.5	59.9	60.1	60.3	60.4	60.6
102.5°	70.0	70.8	71.6	72.1	72.3	72.6	72.8	73.1
105°	89.3	89.8	90.3	90.7	90.9	91.2	91.4	91.6
107.5°	110.1	110.4	110.6	110.8	110.8	110.7	110.7	110.7
110°	124.7	124.9	125.1	125.2	125.1	125.1	125.0	124.9





TEST NUMBER: P333683-930

CATALOG NUMBER: S125RDIW-S850D470U930-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	139.2	139.3	139.4	139.4	139.3	139.1	138.9	138.8
115°	161.3	161.3	161.2	161.1	161.0	160.9	160.9	160.8
117.5°	183.5	183.5	183.6	183.5	183.2	182.9	182.5	182.1
120°	198.4	198.4	198.4	198.3	198.0	197.6	197.3	197.0
122.5°	213.1	213.0	213.0	212.8	212.5	212.3	212.0	211.7
125°	234.7	234.6	234.4	234.2	234.2	234.1	234.0	233.9
127.5°	256.2	256.1	256.0	255.8	255.7	255.5	255.4	255.2
130°	270.4	270.3	270.2	270.0	269.9	269.7	269.5	269.4
132.5°	283.9	283.8	283.7	283.6	283.4	283.2	282.9	282.7
135°	304.8	304.8	304.8	304.7	304.4	304.0	303.7	303.4
137.5°	325.2	325.3	325.5	325.3	324.9	324.5	324.0	323.6
140°	338.1	338.3	338.4	338.3	337.9	337.5	337.0	336.6
142.5°	350.7	350.7	350.8	350.7	350.3	349.8	349.4	349.0
145°	368.8	368.8	368.8	368.7	368.4	368.2	367.9	367.7
147.5°	385.6	385.8	386.0	385.8	385.2	384.7	384.1	383.6
150°	396.2	396.2	396.2	396.1	395.9	395.7	395.6	395.4
152.5°	406.0	406.2	406.3	406.3	406.0	405.8	405.4	405.1
155°	420.0	420.4	420.7	420.7	420.3	419.9	419.5	419.1
157.5°	432.3	432.6	432.9	432.8	432.3	431.7	431.2	430.6
160°	439.7	440.0	440.3	440.3	439.9	439.4	439.0	438.6
162.5°	446.6	446.9	447.4	447.4	446.9	446.4	445.9	445.4
165°	455.9	456.2	456.6	456.5	456.0	455.5	455.0	454.5
167.5°	462.8	463.3	463.8	463.8	463.3	462.8	462.3	461.8
170°	466.9	467.4	468.0	467.9	467.3	466.8	466.2	465.6
172.5°	469.9	470.4	470.9	470.9	470.3	469.9	469.4	468.9
175°	473.2	473.8	474.3	474.2	473.6	473.0	472.5	471.9
177.5°	474.7	475.2	475.6	475.5	475.1	474.6	474.1	473.7
180°	474.8	474.8	474.8	474.8	474.8	474.8	474.8	474.8

(END OF REPORT)