

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: P333559-927

Luminaire Tested: **S125RDIP-S850D590U927-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333559-927  
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: S125RDIP-S850D590U927-4F0-1E-UDD-F  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 590 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4447.0 lumens  
Efficiency: N/A  
Efficacy: 110.3 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

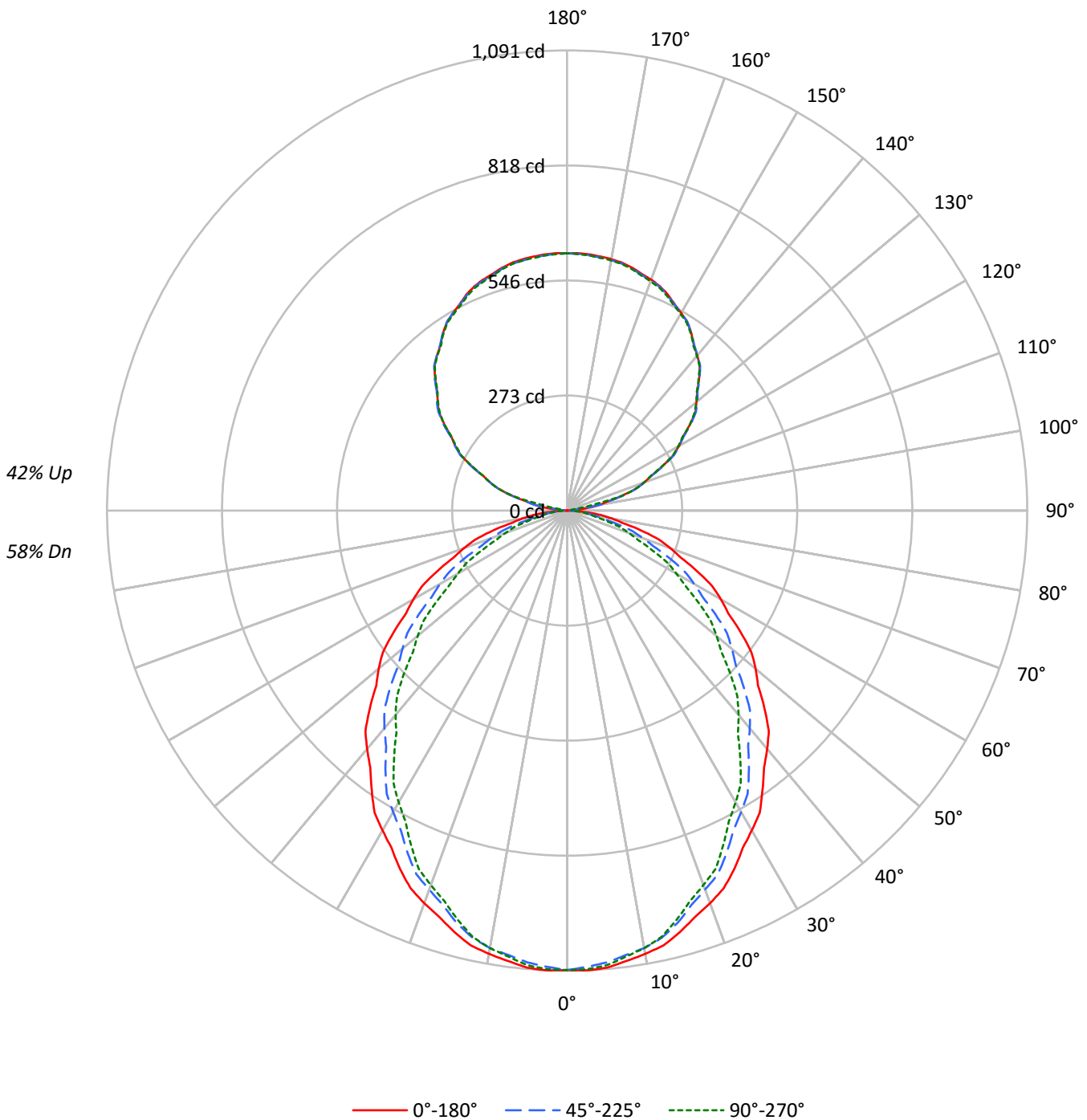
Input Watts (W): 40.3  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P333559-927

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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	109	109	109	109	102	102	102	102	88	88	88		75	75	75		63	63	63	58
1	100	96	92	88	93	89	86	83	77	75	73		66	65	63		56	55	54	49
2	91	84	78	72	85	78	73	68	68	64	61		59	56	53		50	48	46	42
3	83	74	66	61	77	69	63	57	60	55	51		52	48	45		44	42	39	36
4	76	65	58	52	71	61	54	49	54	48	44		47	42	39		40	37	34	31
5	70	59	50	44	65	55	48	42	48	42	38		42	37	34		36	33	30	27
6	65	53	44	39	60	49	42	37	44	38	33		38	33	30		33	29	26	24
7	60	48	40	34	56	45	38	32	40	34	29		35	30	26		30	26	24	21
8	56	43	36	30	52	41	34	29	36	30	26		32	27	24		28	24	21	19
9	52	40	32	27	48	37	31	26	33	28	24		29	25	21		26	22	19	17
10	49	36	29	24	45	34	28	23	31	25	21		27	23	19		24	20	17	16

**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



TEST NUMBER: P333559-927

CATALOG NUMBER: S125RDIP-S850D590U927-4F0-1E-UDD-F

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	102.4	2.3
10°-20°	286.2	6.4
20°-30°	415.1	9.3
30°-40°	473.1	10.6
40°-50°	461.1	10.4
50°-60°	388.2	8.7
60°-70°	272.1	6.1
70°-80°	139.9	3.1
80°-90°	36.6	0.8
90°-100°	22.2	0.5
100°-110°	136.6	3.1
110°-120°	247.7	5.6
120°-130°	317.8	7.1
130°-140°	341.9	7.7
140°-150°	320.9	7.2
150°-160°	259.6	5.8
160°-170°	167.9	3.8
170°-180°	57.9	1.3
0°-30°	803.8	18.1
0°-40°	1276.8	28.7
0°-60°	2126.1	47.8
0°-90°	2574.7	57.9
90°-120°	406.4	9.1
90°-150°	1387.0	31.2
90°-180°	1872.0	42.1
0°-180°	4447.0	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°	0	4	7	10	11	3
95°	26	24	7	9	10	33
105°	133	135	135	135	134	141
115°	250	252	252	250	248	247
125°	355	358	358	356	355	317
135°	442	445	444	443	441	341
145°	513	514	514	514	512	321
155°	565	562	563	564	561	260
165°	596	594	594	596	593	168
175°	610	607	607	611	607	58
180°	610	610	610	610	610	



TEST NUMBER: P333559-927

CATALOG NUMBER: S125RDIP-S850D590U927-4F0-1E-UDD-F

**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°	15.2	14.3	13.5	12.7	11.8	11.3	11.3	11.3	11.3	11.3	11.4
90°	0.5	1.3	2.1	2.9	3.6	4.4	5.1	5.9	6.5	7.2	7.8
92.5°	7.0	6.4	5.9	5.3	4.7	4.8	5.4	6.0	6.6	7.2	7.8
95°	25.7	25.4	25.2	24.9	24.6	22.5	18.7	14.9	11.0	7.2	7.8
97.5°	53.8	54.3	54.9	55.4	55.9	52.4	44.9	37.3	29.8	22.3	19.4
100°	75.5	75.8	76.0	76.4	76.7	77.0	77.5	77.9	78.3	78.7	63.7
102.5°	97.5	97.9	98.3	98.7	99.0	99.3	99.6	99.9	100.1	100.4	97.5
105°	132.8	133.2	133.7	134.1	134.5	134.7	134.7	134.7	134.7	134.7	134.7
107.5°	169.6	169.6	169.6	169.6	169.6	169.7	169.8	170.1	170.3	170.5	170.5
110°	193.5	193.5	193.5	193.5	193.5	193.5	193.8	193.9	194.2	194.3	194.1



TEST NUMBER: P333559-927

CATALOG NUMBER: S125RDIP-S850D590U927-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	215.9	216.1	216.3	216.6	216.8	217.0	217.1	217.2	217.4	217.5	217.1
115°	249.5	250.0	250.5	251.0	251.5	251.8	251.9	252.0	252.1	252.2	251.8
117.5°	284.3	284.2	284.2	284.2	284.2	284.4	284.8	285.2	285.5	285.9	285.4
120°	306.0	305.9	305.8	305.7	305.5	305.7	306.0	306.3	306.6	306.9	306.7
122.5°	325.1	325.5	325.9	326.3	326.7	326.9	327.1	327.3	327.3	327.5	327.3
125°	354.8	355.5	356.2	356.9	357.6	358.0	358.0	358.0	358.0	358.0	357.6
127.5°	383.1	383.6	384.1	384.6	385.1	385.3	385.2	385.2	385.2	385.1	384.8
130°	400.4	400.9	401.5	402.0	402.4	402.7	402.8	403.0	403.1	403.1	402.8
132.5°	417.8	418.4	419.0	419.5	420.1	420.3	420.1	419.9	419.6	419.5	419.4
135°	442.5	443.1	443.7	444.3	444.9	445.1	444.9	444.7	444.5	444.3	444.1
137.5°	465.2	465.7	466.2	466.8	467.2	467.5	467.2	467.1	466.9	466.7	466.8
140°	480.0	480.2	480.4	480.6	480.8	480.9	480.8	480.6	480.5	480.5	480.6
142.5°	493.4	493.5	493.6	493.8	493.8	494.0	494.2	494.2	494.4	494.6	494.6
145°	513.0	513.2	513.4	513.6	513.8	513.9	513.9	513.9	513.9	513.9	514.0
147.5°	530.1	530.1	530.0	530.0	530.0	530.0	530.1	530.3	530.4	530.5	530.7
150°	541.0	540.8	540.6	540.4	540.2	540.2	540.4	540.6	540.8	541.0	541.2
152.5°	551.5	551.0	550.6	550.2	549.7	549.6	549.8	550.0	550.2	550.4	550.6
155°	565.0	564.4	563.8	563.2	562.5	562.4	562.5	562.8	562.9	563.2	563.5
157.5°	575.4	575.0	574.6	574.3	573.9	573.8	573.8	573.8	573.8	573.9	574.2
160°	582.6	582.0	581.4	580.7	580.2	580.0	580.0	580.1	580.2	580.4	580.7
162.5°	588.4	587.8	587.2	586.5	586.0	585.7	585.8	585.9	586.0	586.1	586.7
165°	596.1	595.6	594.9	594.4	593.7	593.5	593.6	593.7	593.8	593.9	594.5
167.5°	601.9	601.3	600.7	600.1	599.4	599.2	599.3	599.4	599.4	599.6	600.3
170°	605.2	604.5	603.8	603.1	602.4	602.1	602.1	602.3	602.4	602.5	603.2
172.5°	607.4	606.7	605.9	605.2	604.5	604.3	604.4	604.7	604.8	605.0	605.7
175°	609.7	609.1	608.5	607.9	607.3	607.0	607.1	607.3	607.4	607.4	608.2
177.5°	610.8	610.3	609.8	609.3	608.9	608.6	608.7	608.8	608.9	609.0	609.6
180°	609.7	609.7	609.7	609.7	609.7	609.7	609.7	609.7	609.7	609.7	609.7



TEST NUMBER: P333559-927

CATALOG NUMBER: S125RDIP-S850D590U927-4F0-1E-UDD-F

**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°	11.5	11.6	11.7	11.7	11.6	11.6	11.5	11.4
90°	8.2	8.7	9.3	9.7	10.0	10.2	10.5	10.9
92.5°	8.2	8.7	9.3	9.6	9.7	9.8	10.0	10.1
95°	8.2	8.7	9.3	9.5	9.5	9.5	9.5	9.5
97.5°	16.6	13.7	10.9	9.5	9.5	9.5	9.5	9.5
100°	48.7	33.7	18.8	11.1	10.7	10.3	9.9	9.5
102.5°	94.7	91.8	89.0	84.2	77.3	70.5	63.7	56.9
105°	134.7	134.7	134.7	134.7	134.5	134.4	134.4	134.2
107.5°	170.6	170.6	170.6	170.4	170.2	169.8	169.5	169.2
110°	193.8	193.5	193.1	193.1	193.1	193.2	193.4	193.5





TEST NUMBER: P333559-927

CATALOG NUMBER: S125RDIP-S850D590U927-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	216.7	216.3	215.9	215.7	215.6	215.4	215.3	215.2
115°	251.4	251.0	250.6	250.1	249.5	248.9	248.3	247.7
117.5°	284.9	284.3	283.8	283.4	283.2	282.9	282.7	282.4
120°	306.5	306.3	306.1	305.7	305.2	304.8	304.2	303.7
122.5°	327.1	326.9	326.7	326.3	325.7	325.1	324.6	324.0
125°	357.2	356.7	356.3	356.0	355.7	355.4	355.1	354.8
127.5°	384.6	384.4	384.2	383.7	382.9	382.2	381.5	380.7
130°	402.6	402.3	402.0	401.6	401.1	400.5	400.1	399.6
132.5°	419.3	419.2	419.2	418.9	418.4	417.9	417.4	416.9
135°	443.9	443.7	443.5	443.1	442.5	441.9	441.2	440.7
137.5°	466.8	466.8	466.8	466.6	466.1	465.6	465.1	464.5
140°	480.9	481.0	481.3	481.0	480.5	479.8	479.3	478.6
142.5°	494.6	494.6	494.7	494.4	493.8	493.2	492.6	492.0
145°	514.1	514.2	514.3	514.0	513.4	512.9	512.2	511.6
147.5°	530.8	530.9	531.0	530.7	530.0	529.3	528.5	527.8
150°	541.4	541.6	541.8	541.5	540.7	539.9	539.1	538.3
152.5°	550.8	551.0	551.2	551.0	550.2	549.5	548.7	548.0
155°	563.8	564.0	564.4	564.1	563.3	562.5	561.7	560.9
157.5°	574.5	574.8	575.1	574.9	574.1	573.2	572.4	571.6
160°	581.1	581.5	581.9	581.7	580.9	580.1	579.3	578.5
162.5°	587.2	587.8	588.4	588.2	587.3	586.5	585.6	584.6
165°	595.1	595.7	596.3	596.2	595.4	594.6	593.8	592.9
167.5°	601.0	601.7	602.5	602.4	601.5	600.6	599.7	598.7
170°	604.1	604.9	605.7	605.6	604.8	603.8	602.9	602.1
172.5°	606.4	607.2	607.9	607.8	606.9	606.0	605.1	604.2
175°	609.0	609.8	610.7	610.6	609.7	608.8	607.9	607.0
177.5°	610.1	610.7	611.2	611.2	610.5	609.9	609.3	608.6
180°	609.7	609.7	609.7	609.7	609.7	609.7	609.7	609.7

(END OF REPORT)