

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: P333420-935

Luminaire Tested: **S125DIW-S850D1340U935-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333420-935  
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: S125DIW-S850D1340U935-4F0-1E-UDD-D  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 1340 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7446.2 lumens  
Efficiency: N/A  
Efficacy: 121.3 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34  
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.08')  
CIE Type: Semi-Indirect

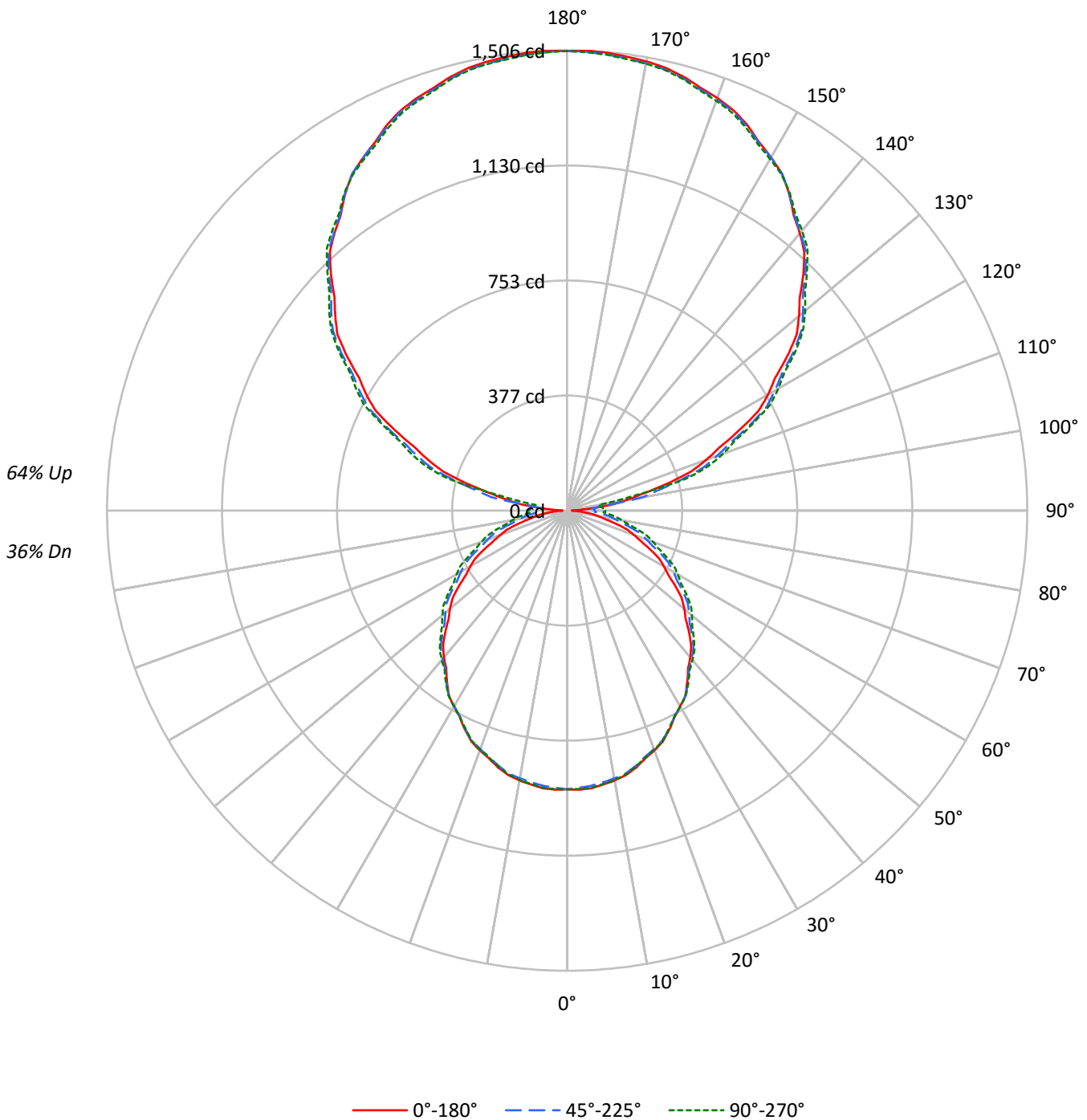
Input Watts (W): 61.4  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P333420-935

CATALOG NUMBER: S125DIW-S850D1340U935-4F0-1E-UDD-D

### Luminous Intensity Polar Plot





TEST NUMBER: P333420-935

CATALOG NUMBER: S125DIW-S850D1340U935-4F0-1E-UDD-D

**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	104	104	104	104	94	94	94	94	75	75	75	58	58	58	43	43	43	36
1	94	90	86	82	85	81	78	75	65	63	61	51	49	48	37	36	35	29
2	85	78	72	66	77	71	65	61	57	53	50	44	41	39	32	31	29	24
3	78	68	61	55	70	62	56	50	50	45	42	39	36	33	28	26	25	20
4	71	60	52	46	64	55	48	43	44	39	35	34	31	28	25	23	21	17
5	65	53	45	39	58	49	42	36	39	34	30	31	27	24	23	20	18	15
6	60	48	40	34	54	43	36	31	35	30	26	28	24	21	21	18	16	13
7	55	43	35	30	50	39	32	27	32	27	23	25	21	18	19	16	14	11
8	51	39	31	26	46	36	29	24	29	24	20	23	19	16	17	15	13	10
9	47	35	28	23	43	32	26	21	27	21	18	21	17	15	16	13	11	9
10	44	32	25	21	40	30	23	19	24	19	16	19	16	13	15	12	10	8

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	5891	5891	5891
5°	5902	5782	5800
10°	5860	5679	5670
15°	5791	5555	5505
20°	5697	5402	5339
25°	5585	5239	5135
30°	5449	5059	4950
35°	5322	4893	4780
40°	5194	4719	4609
45°	5048	4570	4458
50°	4910	4408	4325
55°	4742	4256	4166
60°	4560	4082	4006
65°	4369	3900	3826
70°	4153	3651	3640
75°	3809	3412	3412
80°	3363	3122	3163
85°	2945	2924	3085



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	86.2	1.2
10°-20°	244.8	3.3
20°-30°	364.1	4.9
30°-40°	431.3	5.8
40°-50°	445.9	6.0
50°-60°	410.8	5.5
60°-70°	332.0	4.5
70°-80°	222.4	3.0
80°-90°	118.5	1.6
90°-100°	119.4	1.6
100°-110°	384.5	5.2
110°-120°	642.8	8.6
120°-130°	802.1	10.8
130°-140°	851.1	11.4
140°-150°	793.1	10.7
150°-160°	640.2	8.6
160°-170°	414.1	5.6
170°-180°	142.8	1.9
0°-30°	695.2	9.3
0°-40°	1126.5	15.1
0°-60°	1983.2	26.6
0°-90°	2656.0	35.7
90°-120°	1146.7	15.4
90°-150°	3593.0	48.3
90°-180°	4790.0	64.3
0°-180°	7446.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	912	912	912	912	912	
5°	912	910	904	911	910	86
15°	871	872	866	870	867	245
25°	791	794	789	792	788	364
35°	685	691	688	691	691	428
45°	564	574	578	584	586	435
55°	434	448	462	472	476	388
65°	299	319	341	354	358	296
75°	164	188	216	234	239	175
85°	49	79	110	129	137	52
90°	15	53	91	116	127	12
95°	75	93	83	107	115	90
105°	336	355	381	399	404	356
115°	621	633	657	668	667	615
125°	879	886	903	913	914	784
135°	1093	1099	1103	1112	1110	842
145°	1266	1267	1268	1273	1270	791
155°	1393	1387	1389	1392	1384	642
165°	1470	1464	1465	1471	1463	415
175°	1504	1498	1498	1506	1497	143
180°	1504	1504	1504	1504	1504	



TEST NUMBER: P333420-935

CATALOG NUMBER: S125DIW-S850D1340U935-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	912.1	912.1	912.1	912.1	912.1	912.1	912.1	912.1	912.1	912.1	912.1
2.5°	914.2	914.0	913.6	913.3	912.9	912.2	911.1	910.0	908.9	907.8	908.9
5°	912.1	911.7	911.3	910.9	910.5	909.6	908.2	906.8	905.4	904.0	905.6
7.5°	904.0	903.9	903.7	903.5	903.4	902.6	901.2	899.7	898.3	896.9	898.3
10°	896.9	896.9	896.9	896.9	896.9	896.1	894.5	892.9	891.3	889.8	891.1
12.5°	886.8	887.0	887.2	887.3	887.5	886.9	885.7	884.4	883.1	881.8	883.0
15°	871.0	871.2	871.3	871.5	871.8	871.2	869.8	868.4	866.9	865.6	866.8
17.5°	850.2	850.6	851.0	851.4	851.8	851.3	849.9	848.5	847.1	845.8	846.6
20°	835.2	835.6	835.9	836.4	836.8	836.3	834.9	833.5	832.1	830.7	831.3
22.5°	818.0	818.7	819.4	820.2	820.9	820.4	818.9	817.3	815.8	814.2	815.0
25°	791.3	791.9	792.6	793.2	793.8	793.4	792.3	791.1	789.9	788.7	789.5
27.5°	761.6	762.6	763.4	764.3	765.2	764.9	763.6	762.2	760.9	759.6	760.1
30°	739.5	740.7	741.9	743.0	744.2	744.2	743.0	741.9	740.7	739.5	739.9
32.5°	719.5	720.5	721.5	722.6	723.6	723.7	722.8	721.9	721.1	720.2	720.6
35°	684.9	686.4	687.8	689.1	690.5	691.0	690.3	689.7	689.1	688.5	689.1
37.5°	650.4	651.7	653.0	654.3	655.6	656.1	655.8	655.7	655.5	655.3	656.1
40°	626.8	628.4	630.0	631.6	633.2	633.9	633.7	633.5	633.3	633.1	633.9
42.5°	601.1	603.1	605.2	607.3	609.3	610.6	611.1	611.5	611.9	612.3	613.3
45°	564.2	566.5	568.6	570.8	573.0	574.5	575.6	576.5	577.6	578.5	580.0
47.5°	526.5	528.6	530.5	532.6	534.6	536.5	538.2	539.9	541.6	543.3	545.4
50°	500.8	502.9	505.1	507.3	509.5	511.7	513.8	516.1	518.2	520.4	522.6
52.5°	473.6	476.2	478.9	481.6	484.2	486.9	489.6	492.2	494.9	497.6	499.9
55°	433.7	436.9	440.1	443.2	446.4	449.6	452.8	456.0	459.1	462.3	464.5
57.5°	392.9	396.7	400.5	404.3	408.2	411.9	415.6	419.2	422.8	426.5	429.0
60°	365.8	369.7	373.7	377.6	381.6	385.6	389.6	393.6	397.5	401.5	404.5
62.5°	339.2	343.2	347.2	351.2	355.2	359.3	363.6	367.9	372.1	376.4	379.8
65°	298.7	303.2	307.8	312.4	316.9	321.6	326.4	331.1	336.0	340.7	343.7
67.5°	260.4	264.8	269.2	273.6	278.0	282.7	287.5	292.4	297.2	302.0	305.7
70°	232.5	237.0	241.6	246.2	250.8	255.6	260.8	266.0	271.1	276.3	280.1
72.5°	205.3	210.0	214.7	219.5	224.2	229.4	235.1	240.7	246.3	252.0	256.1
75°	164.5	169.7	174.9	180.0	185.2	191.0	197.3	203.7	210.0	216.4	220.3
77.5°	125.4	131.3	137.3	143.3	149.2	155.2	161.4	167.5	173.6	179.8	184.1
80°	101.1	107.0	113.0	118.9	124.9	131.2	138.0	144.7	151.5	158.3	162.6
82.5°	78.9	85.2	91.4	97.7	104.0	110.6	117.5	124.4	131.3	138.3	142.5
85°	49.2	55.7	62.3	68.9	75.4	82.1	89.1	96.1	103.1	109.9	114.3
87.5°	28.2	34.9	41.7	48.4	55.1	62.1	69.1	76.3	83.3	90.5	95.3
90°	15.4	23.8	32.1	40.5	48.8	57.2	65.7	74.2	82.7	91.2	96.9
92.5°	30.0	34.5	39.0	43.6	48.0	54.5	62.9	71.4	79.8	88.3	93.9
95°	75.2	79.6	84.0	88.4	92.9	93.8	91.1	88.4	85.8	83.1	88.7
97.5°	143.2	149.2	155.2	161.2	167.1	164.1	152.0	139.9	127.8	115.6	112.9
100°	196.0	201.0	205.9	210.8	215.7	221.8	229.1	236.5	243.8	251.2	218.4
102.5°	249.7	254.5	259.2	264.1	268.9	274.7	281.5	288.3	295.1	301.9	298.9
105°	335.8	339.9	344.1	348.3	352.5	357.6	363.5	369.5	375.4	381.4	385.4
107.5°	425.2	427.9	430.7	433.3	436.0	440.5	446.7	453.0	459.2	465.4	469.3
110°	483.4	485.8	488.2	490.5	492.9	497.1	503.2	509.3	515.3	521.4	524.4



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	538.6	541.1	543.7	546.2	548.7	552.8	558.5	564.2	569.9	575.6	578.2
115°	620.7	623.4	625.9	628.6	631.2	635.2	640.7	646.1	651.5	656.9	659.5
117.5°	705.7	706.5	707.4	708.3	709.1	712.5	718.3	724.1	730.0	735.8	737.9
120°	759.1	759.5	759.8	760.2	760.6	763.4	768.7	774.0	779.4	784.6	787.6
122.5°	805.7	806.9	808.1	809.4	810.6	813.6	818.4	823.1	827.9	832.6	835.3
125°	878.7	880.2	881.8	883.3	884.8	887.6	891.6	895.5	899.5	903.4	905.7
127.5°	947.5	948.6	949.7	950.7	951.7	953.8	956.9	960.0	963.1	966.2	968.6
130°	990.4	991.4	992.5	993.5	994.5	996.6	999.6	1002.6	1005.6	1008.7	1010.7
132.5°	1032.4	1033.9	1035.3	1036.6	1038.0	1039.6	1041.1	1042.8	1044.4	1045.9	1048.6
135°	1093.1	1094.4	1095.7	1097.0	1098.3	1099.4	1100.3	1101.2	1102.1	1102.9	1105.1
137.5°	1148.9	1150.0	1151.2	1152.4	1153.5	1154.2	1154.3	1154.6	1154.9	1155.0	1157.5
140°	1184.8	1185.3	1185.8	1186.3	1186.8	1187.0	1187.0	1186.9	1186.8	1186.8	1189.5
142.5°	1217.8	1217.9	1218.1	1218.2	1218.3	1218.6	1219.0	1219.3	1219.8	1220.1	1222.1
145°	1266.2	1266.4	1266.8	1267.0	1267.4	1267.5	1267.5	1267.5	1267.5	1267.5	1268.8
147.5°	1307.6	1307.5	1307.4	1307.3	1307.3	1307.3	1307.6	1307.9	1308.2	1308.5	1309.2
150°	1334.4	1333.9	1333.4	1332.9	1332.4	1332.4	1332.9	1333.4	1333.9	1334.4	1334.9
152.5°	1360.2	1359.2	1358.1	1357.0	1355.9	1355.6	1356.1	1356.6	1357.1	1357.5	1358.1
155°	1393.4	1392.0	1390.5	1389.1	1387.5	1387.1	1387.5	1388.0	1388.5	1389.1	1389.7
157.5°	1419.1	1418.2	1417.3	1416.4	1415.6	1415.1	1415.1	1415.2	1415.3	1415.3	1416.1
160°	1436.9	1435.5	1434.0	1432.4	1431.0	1430.4	1430.6	1430.9	1431.2	1431.4	1432.4
162.5°	1451.2	1449.8	1448.2	1446.7	1445.3	1444.7	1444.9	1445.2	1445.4	1445.6	1447.0
165°	1470.4	1468.9	1467.4	1465.9	1464.5	1463.8	1464.0	1464.3	1464.6	1464.8	1466.3
167.5°	1484.6	1483.2	1481.6	1480.1	1478.5	1477.9	1478.1	1478.3	1478.6	1478.9	1480.7
170°	1492.7	1491.0	1489.2	1487.5	1485.7	1485.0	1485.2	1485.5	1485.7	1486.0	1488.0
172.5°	1498.1	1496.3	1494.6	1492.8	1491.1	1490.5	1490.9	1491.3	1491.8	1492.2	1494.0
175°	1503.8	1502.4	1500.9	1499.3	1497.9	1497.3	1497.5	1497.8	1498.1	1498.2	1500.2
177.5°	1506.5	1505.3	1504.2	1503.0	1501.8	1501.2	1501.5	1501.7	1501.8	1502.0	1503.5
180°	1503.8	1503.8	1503.8	1503.8	1503.8	1503.8	1503.8	1503.8	1503.8	1503.8	1503.8



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	912.1	912.1	912.1	912.1	912.1	912.1	912.1	912.1
2.5°	910.0	911.1	912.2	912.7	912.6	912.4	912.2	912.1
5°	907.2	908.8	910.4	911.1	910.9	910.7	910.5	910.3
7.5°	899.7	901.0	902.4	903.0	902.8	902.7	902.4	902.2
10°	892.5	893.9	895.3	895.9	895.7	895.5	895.3	895.1
12.5°	884.0	885.1	886.1	886.4	885.9	885.4	884.8	884.3
15°	868.0	869.2	870.4	870.6	869.8	868.9	868.1	867.4
17.5°	847.6	848.5	849.4	849.6	849.1	848.7	848.2	847.7
20°	831.9	832.5	833.1	833.4	833.4	833.4	833.4	833.4
22.5°	815.8	816.5	817.3	817.4	816.9	816.5	816.0	815.5
25°	790.3	791.1	791.9	791.8	790.7	789.8	788.8	787.8
27.5°	760.6	761.2	761.7	761.9	761.5	761.1	760.8	760.4
30°	740.3	740.7	741.1	741.2	741.0	740.8	740.6	740.4
32.5°	721.0	721.3	721.8	721.9	721.7	721.5	721.3	721.1
35°	689.7	690.3	691.0	691.2	691.2	691.2	691.2	691.2
37.5°	656.9	657.6	658.4	658.8	658.8	658.7	658.6	658.5
40°	634.6	635.5	636.3	636.9	637.2	637.7	638.1	638.4
42.5°	614.2	615.2	616.1	616.6	616.7	616.8	616.9	617.0
45°	581.3	582.7	584.1	584.9	585.1	585.3	585.5	585.7
47.5°	547.3	549.4	551.4	552.7	553.1	553.5	554.0	554.4
50°	524.8	527.0	529.2	530.5	531.2	531.8	532.4	533.0
52.5°	502.2	504.5	506.9	508.3	508.8	509.2	509.6	510.1
55°	466.7	468.9	471.1	472.5	473.3	474.2	474.9	475.7
57.5°	431.5	434.0	436.5	438.1	438.7	439.3	439.9	440.5
60°	407.4	410.4	413.5	415.2	415.8	416.4	417.0	417.6
62.5°	383.1	386.3	389.7	391.7	392.4	393.2	393.9	394.7
65°	346.6	349.7	352.6	354.5	355.3	356.1	356.9	357.7
67.5°	309.3	312.9	316.5	318.8	319.9	320.9	321.9	323.0
70°	283.9	287.7	291.4	293.9	295.1	296.3	297.5	298.7
72.5°	260.2	264.2	268.4	270.9	271.7	272.6	273.5	274.3
75°	224.4	228.3	232.3	234.8	235.7	236.8	237.7	238.8
77.5°	188.5	192.9	197.3	199.8	200.6	201.4	202.2	203.0
80°	167.0	171.4	175.7	178.3	179.2	179.9	180.7	181.5
82.5°	146.6	150.8	155.1	157.9	159.4	160.7	162.2	163.7
85°	118.7	123.1	127.5	130.4	132.1	133.6	135.3	136.8
87.5°	100.1	105.0	109.8	113.0	114.5	116.0	117.5	119.1
90°	102.8	108.6	114.4	118.4	120.5	122.6	124.8	126.9
92.5°	99.6	105.2	110.9	114.6	116.3	118.0	119.8	121.6
95°	94.4	100.0	105.6	109.1	110.5	111.8	113.2	114.6
97.5°	110.0	107.2	104.4	103.7	105.0	106.3	107.7	109.1
100°	185.7	153.0	120.3	104.0	104.2	104.4	104.6	104.8
102.5°	295.9	292.9	290.0	280.7	265.0	249.3	233.7	218.0
105°	389.3	393.3	397.3	399.8	401.0	402.1	403.3	404.4
107.5°	473.4	477.3	481.3	483.5	484.1	484.6	485.0	485.5
110°	527.4	530.5	533.5	535.9	537.5	539.2	540.8	542.4





TEST NUMBER: P333420-935

CATALOG NUMBER: S125DIW-S850D1340U935-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	580.9	583.6	586.3	588.1	589.2	590.2	591.2	592.4
115°	662.1	664.7	667.3	668.4	668.1	667.8	667.5	667.3
117.5°	739.9	742.1	744.2	745.5	746.2	747.0	747.7	748.4
120°	790.4	793.3	796.2	797.6	797.5	797.5	797.5	797.5
122.5°	838.1	840.8	843.5	844.7	844.6	844.3	844.0	843.8
125°	907.8	910.1	912.2	913.4	913.7	914.0	914.2	914.5
127.5°	971.0	973.4	975.9	976.7	976.0	975.3	974.7	974.0
130°	1012.8	1014.8	1016.8	1017.7	1017.5	1017.3	1017.0	1016.8
132.5°	1051.2	1053.9	1056.5	1057.6	1057.2	1056.8	1056.4	1056.0
135°	1107.2	1109.2	1111.3	1112.2	1111.6	1111.1	1110.7	1110.2
137.5°	1159.9	1162.4	1164.8	1165.8	1165.3	1164.8	1164.3	1163.8
140°	1192.1	1194.8	1197.5	1198.5	1197.8	1197.1	1196.4	1195.8
142.5°	1224.1	1226.1	1228.0	1228.6	1228.0	1227.3	1226.6	1225.9
145°	1270.0	1271.3	1272.5	1272.7	1272.0	1271.4	1270.7	1270.0
147.5°	1309.8	1310.4	1311.0	1310.6	1309.2	1307.7	1306.3	1304.8
150°	1335.4	1335.8	1336.4	1335.8	1333.9	1332.1	1330.4	1328.6
152.5°	1358.6	1359.1	1359.5	1358.9	1357.2	1355.5	1353.7	1351.9
155°	1390.5	1391.2	1392.0	1391.4	1389.4	1387.4	1385.4	1383.5
157.5°	1416.9	1417.7	1418.5	1417.9	1415.9	1413.9	1412.0	1410.0
160°	1433.4	1434.3	1435.4	1434.9	1432.9	1430.9	1428.9	1426.9
162.5°	1448.4	1449.8	1451.2	1450.8	1448.6	1446.4	1444.2	1442.1
165°	1467.7	1469.3	1470.8	1470.5	1468.5	1466.5	1464.6	1462.6
167.5°	1482.5	1484.2	1486.0	1485.7	1483.5	1481.4	1479.1	1476.9
170°	1490.0	1491.9	1493.9	1493.8	1491.6	1489.4	1487.1	1484.9
172.5°	1495.8	1497.6	1499.3	1499.2	1496.9	1494.7	1492.5	1490.2
175°	1502.2	1504.2	1506.1	1506.1	1503.8	1501.6	1499.3	1497.1
177.5°	1504.9	1506.2	1507.6	1507.5	1505.9	1504.3	1502.7	1501.2
180°	1503.8	1503.8	1503.8	1503.8	1503.8	1503.8	1503.8	1503.8

(END OF REPORT)