

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: P333415-935

Luminaire Tested: **S125DIW-S850D1050U935-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333415-935
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: S125DIW-S850D1050U935-4F0-1E-UDD-D1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1050 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5955.7 lumens
Efficiency: N/A
Efficacy: 113.2 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: General Diffuse

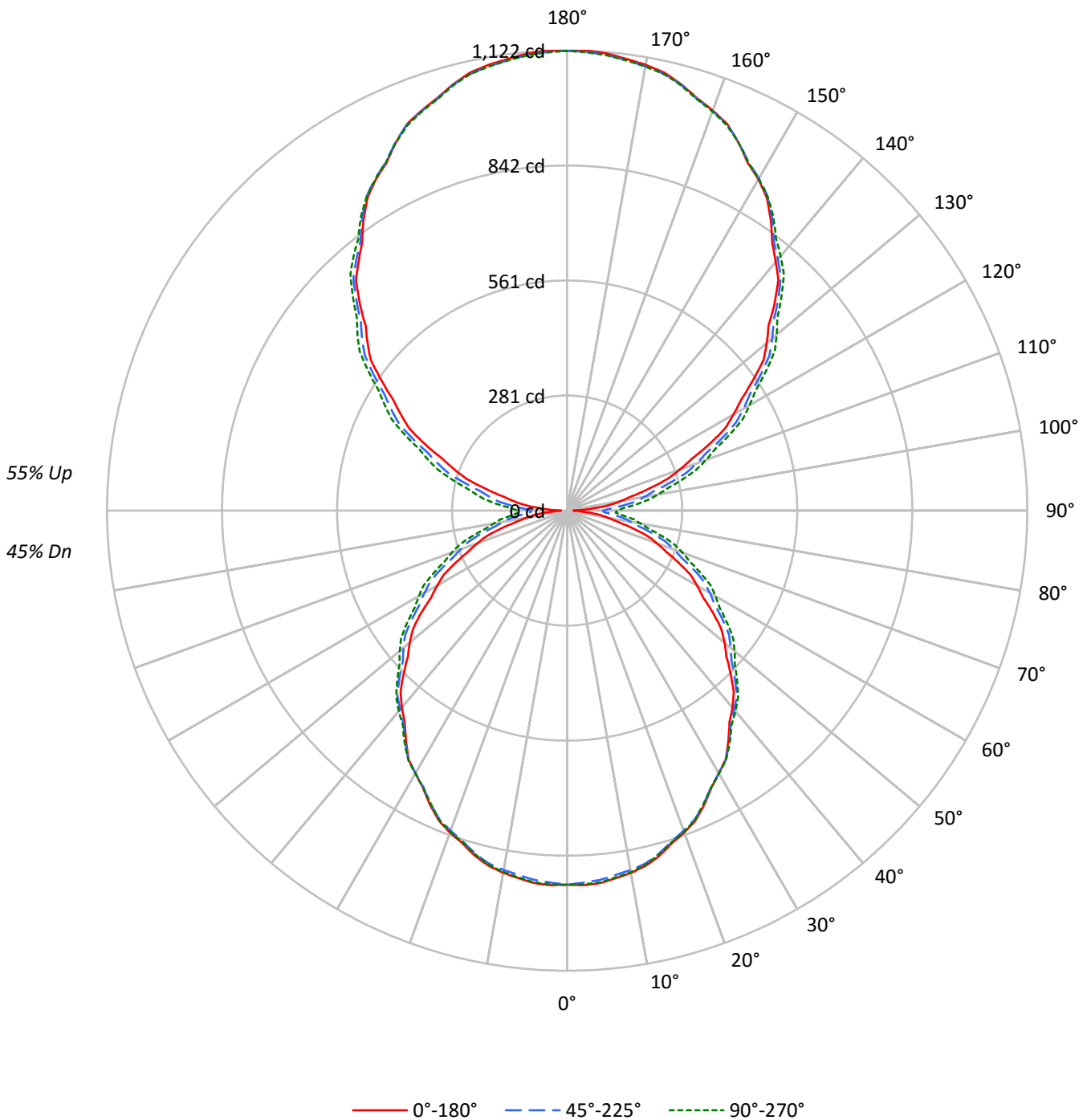
Input Watts (W): 52.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	45
1	96	91	87	83	88	84	80	77	69	67	65	56	54	53	44	43	42	36
2	87	79	73	68	79	73	67	63	60	56	53	49	46	44	38	36	35	30
3	79	70	62	56	72	64	57	52	53	48	44	43	40	37	34	31	29	25
4	72	61	53	47	66	56	49	44	47	42	37	38	34	31	30	27	25	21
5	66	55	46	40	60	50	43	37	42	36	32	34	30	27	27	24	22	18
6	61	49	41	35	56	45	38	32	38	32	28	31	27	23	24	21	19	16
7	56	44	36	30	51	41	33	28	34	29	24	28	24	21	22	19	17	14
8	52	40	32	27	48	37	30	25	31	26	22	26	21	18	20	17	15	13
9	49	36	29	24	44	34	27	22	28	23	19	24	19	16	19	16	14	11
10	45	33	26	21	41	31	24	20	26	21	17	22	18	15	18	14	12	10

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	1.4
10°-20°	244.8	4.1
20°-30°	364.1	6.1
30°-40°	431.3	7.2
40°-50°	445.9	7.5
50°-60°	410.8	6.9
60°-70°	332.0	5.6
70°-80°	222.4	3.7
80°-90°	117.8	2.0
90°-100°	139.8	2.3
100°-110°	269.4	4.5
110°-120°	407.5	6.8
120°-130°	512.4	8.6
130°-140°	561.7	9.4
140°-150°	544.4	9.1
150°-160°	455.9	7.7
160°-170°	303.0	5.1
170°-180°	106.1	1.8
0°-30°	695.2	11.7
0°-40°	1126.5	18.9
0°-60°	1983.2	33.3
0°-90°	2655.4	44.6
90°-120°	816.8	13.7
90°-150°	2435.3	40.9
90°-180°	3300.0	55.4
0°-180°	5955.7	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	51	87	111	121	13
95°	68	94	132	157	166	70
105°	207	226	258	280	290	221
115°	381	392	416	431	436	377
125°	552	558	575	588	592	494
135°	715	720	727	738	740	551
145°	866	868	871	875	876	541
155°	989	989	990	993	989	455
165°	1076	1074	1075	1078	1073	303
175°	1118	1115	1115	1120	1114	106
180°	1121	1121	1121	1121	1121	



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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°	28.1	34.8	41.4	48.0	54.8	61.6	68.6	75.7	82.7	89.7	94.5
90°	15.2	23.1	31.0	38.9	46.8	54.8	62.9	71.0	79.2	87.3	92.8
92.5°	34.0	41.0	48.0	54.9	61.8	69.7	78.2	86.8	95.4	103.9	109.7
95°	68.4	73.9	79.5	85.0	90.6	97.6	106.3	115.0	123.7	132.4	138.2
97.5°	104.8	109.6	114.3	119.2	124.0	131.0	140.2	149.4	158.6	167.7	173.2
100°	132.0	136.1	140.3	144.5	148.7	155.2	164.1	173.0	181.8	190.7	196.7
102.5°	161.3	165.9	170.6	175.1	179.8	185.9	193.3	200.8	208.3	215.8	221.7
105°	207.0	211.1	215.2	219.4	223.5	229.2	236.3	243.4	250.6	257.7	262.9
107.5°	257.5	261.2	264.8	268.5	272.2	277.3	284.0	290.6	297.2	303.8	308.3
110°	292.4	295.8	299.1	302.5	305.8	310.6	316.8	322.9	329.0	335.2	339.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	328.7	331.1	333.6	336.0	338.4	342.6	348.8	354.9	361.0	367.2	371.1
115°	381.3	383.6	385.7	387.9	390.0	393.9	399.4	405.0	410.5	416.1	419.5
117.5°	434.2	435.5	436.8	438.0	439.3	442.6	447.8	453.0	458.2	463.5	467.0
120°	467.7	469.3	470.9	472.4	474.0	477.2	481.9	486.6	491.5	496.2	499.6
122.5°	503.3	503.9	504.5	505.1	505.8	508.6	513.5	518.4	523.3	528.2	531.3
125°	552.3	553.3	554.2	555.3	556.2	558.8	562.9	567.1	571.3	575.4	578.2
127.5°	603.8	604.2	604.7	605.2	605.6	607.6	611.1	614.6	618.1	621.6	624.3
130°	635.2	635.9	636.7	637.5	638.3	640.2	643.4	646.6	649.7	652.9	655.5
132.5°	665.9	667.4	669.0	670.5	672.1	673.9	676.0	678.0	680.1	682.2	684.8
135°	715.4	716.4	717.4	718.3	719.3	720.6	722.1	723.8	725.3	726.9	729.4
137.5°	762.0	762.9	764.0	764.9	765.9	766.9	768.0	769.1	770.3	771.3	773.9
140°	791.3	792.3	793.2	794.2	795.2	796.1	796.9	797.6	798.4	799.2	801.8
142.5°	821.3	822.0	822.6	823.3	824.0	824.7	825.4	826.2	827.0	827.8	829.8
145°	865.5	866.0	866.6	867.2	867.8	868.3	868.9	869.5	870.1	870.6	871.7
147.5°	905.4	905.9	906.3	906.6	907.1	907.6	908.0	908.4	909.0	909.4	910.2
150°	932.6	932.5	932.2	932.0	931.9	932.1	932.9	933.7	934.4	935.2	935.2
152.5°	954.9	955.2	955.5	955.8	956.1	956.3	956.7	956.9	957.3	957.6	958.0
155°	989.3	989.3	989.3	989.3	989.3	989.4	989.6	989.8	990.0	990.2	991.0
157.5°	1020.0	1019.6	1019.2	1018.7	1018.3	1018.2	1018.4	1018.6	1018.8	1019.0	1019.8
160°	1038.2	1037.6	1037.0	1036.5	1035.9	1035.7	1035.9	1036.0	1036.2	1036.5	1037.2
162.5°	1054.2	1053.8	1053.3	1052.9	1052.5	1052.3	1052.4	1052.4	1052.5	1052.5	1053.4
165°	1075.7	1075.3	1074.9	1074.5	1074.1	1074.0	1074.3	1074.4	1074.6	1074.8	1075.6
167.5°	1093.8	1093.0	1092.3	1091.5	1090.7	1090.4	1090.4	1090.4	1090.4	1090.4	1091.5
170°	1103.6	1102.9	1102.1	1101.3	1100.5	1100.1	1100.1	1100.1	1100.1	1100.1	1101.3
172.5°	1110.6	1109.8	1109.1	1108.3	1107.5	1107.1	1107.1	1107.1	1107.1	1107.1	1108.3
175°	1118.4	1117.7	1116.9	1116.1	1115.3	1114.9	1114.9	1114.9	1114.9	1114.9	1116.1
177.5°	1122.5	1121.8	1121.2	1120.6	1120.0	1119.6	1119.4	1119.3	1119.1	1119.0	1119.9
180°	1121.0	1121.0	1121.0	1121.0	1121.0	1121.0	1121.0	1121.0	1121.0	1121.0	1121.0



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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°	99.3	104.0	108.7	111.9	113.4	114.9	116.4	118.0
90°	98.3	103.9	109.4	113.2	115.2	117.2	119.1	121.1
92.5°	115.4	121.1	126.7	130.4	132.3	134.1	136.0	137.8
95°	143.9	149.6	155.4	159.1	160.9	162.6	164.5	166.3
97.5°	178.7	184.1	189.6	193.1	194.7	196.2	197.9	199.4
100°	202.5	208.4	214.4	218.1	219.7	221.3	222.8	224.5
102.5°	227.6	233.5	239.4	243.2	245.0	246.7	248.5	250.2
105°	267.9	273.1	278.3	281.8	283.8	285.8	287.7	289.7
107.5°	312.9	317.4	321.9	324.8	326.0	327.1	328.3	329.5
110°	343.9	348.2	352.6	355.3	356.5	357.7	359.0	360.2



TEST NUMBER: P333415-935

CATALOG NUMBER: S125DIW-S850D1050U935-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	375.0	378.8	382.7	385.2	386.2	387.3	388.3	389.3
115°	422.9	426.3	429.6	431.9	432.8	433.9	434.8	435.8
117.5°	470.5	474.1	477.6	479.7	480.3	480.8	481.4	482.0
120°	503.0	506.4	509.7	511.6	512.0	512.5	512.9	513.3
122.5°	534.3	537.4	540.5	542.3	542.9	543.5	544.1	544.6
125°	581.0	583.8	586.6	588.4	589.2	590.0	590.8	591.6
127.5°	627.1	629.8	632.6	634.3	635.1	635.8	636.6	637.4
130°	658.1	660.6	663.2	664.9	665.5	666.1	666.7	667.3
132.5°	687.3	689.9	692.5	694.0	694.2	694.6	694.8	695.1
135°	732.0	734.6	737.2	738.7	738.8	739.1	739.3	739.5
137.5°	776.4	779.0	781.6	782.8	782.6	782.5	782.3	782.1
140°	804.3	806.9	809.5	810.6	810.5	810.3	810.1	809.9
142.5°	832.0	834.1	836.2	837.2	837.0	836.8	836.6	836.5
145°	872.6	873.7	874.6	875.3	875.5	875.6	875.9	876.1
147.5°	910.9	911.8	912.6	912.5	911.5	910.5	909.6	908.6
150°	935.2	935.2	935.2	935.1	935.0	934.8	934.5	934.4
152.5°	958.5	959.0	959.4	959.3	958.6	958.0	957.3	956.7
155°	991.8	992.6	993.3	993.2	992.2	991.3	990.3	989.3
157.5°	1020.5	1021.3	1022.1	1021.8	1020.5	1019.3	1018.0	1016.8
160°	1038.0	1038.8	1039.6	1039.4	1038.5	1037.5	1036.6	1035.5
162.5°	1054.4	1055.2	1056.2	1056.1	1055.0	1053.9	1052.7	1051.6
165°	1076.3	1077.1	1077.9	1077.7	1076.6	1075.4	1074.3	1073.1
167.5°	1092.7	1093.8	1095.0	1095.0	1093.8	1092.6	1091.4	1090.2
170°	1102.4	1103.6	1104.7	1104.7	1103.3	1102.0	1100.6	1099.2
172.5°	1109.4	1110.6	1111.7	1111.7	1110.5	1109.3	1108.1	1106.9
175°	1117.2	1118.4	1119.6	1119.5	1118.2	1116.8	1115.4	1114.0
177.5°	1120.8	1121.8	1122.7	1122.6	1121.5	1120.4	1119.4	1118.3
180°	1121.0	1121.0	1121.0	1121.0	1121.0	1121.0	1121.0	1121.0

(END OF REPORT)