

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: P333417-940

Luminaire Tested: **S125DIW-S850D1050U940-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333417-940
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-S850D1050U940-4F0-1E-UDD-F1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH 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: 6288.4 lumens
Efficiency: N/A
Efficacy: 119.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: General Diffuse

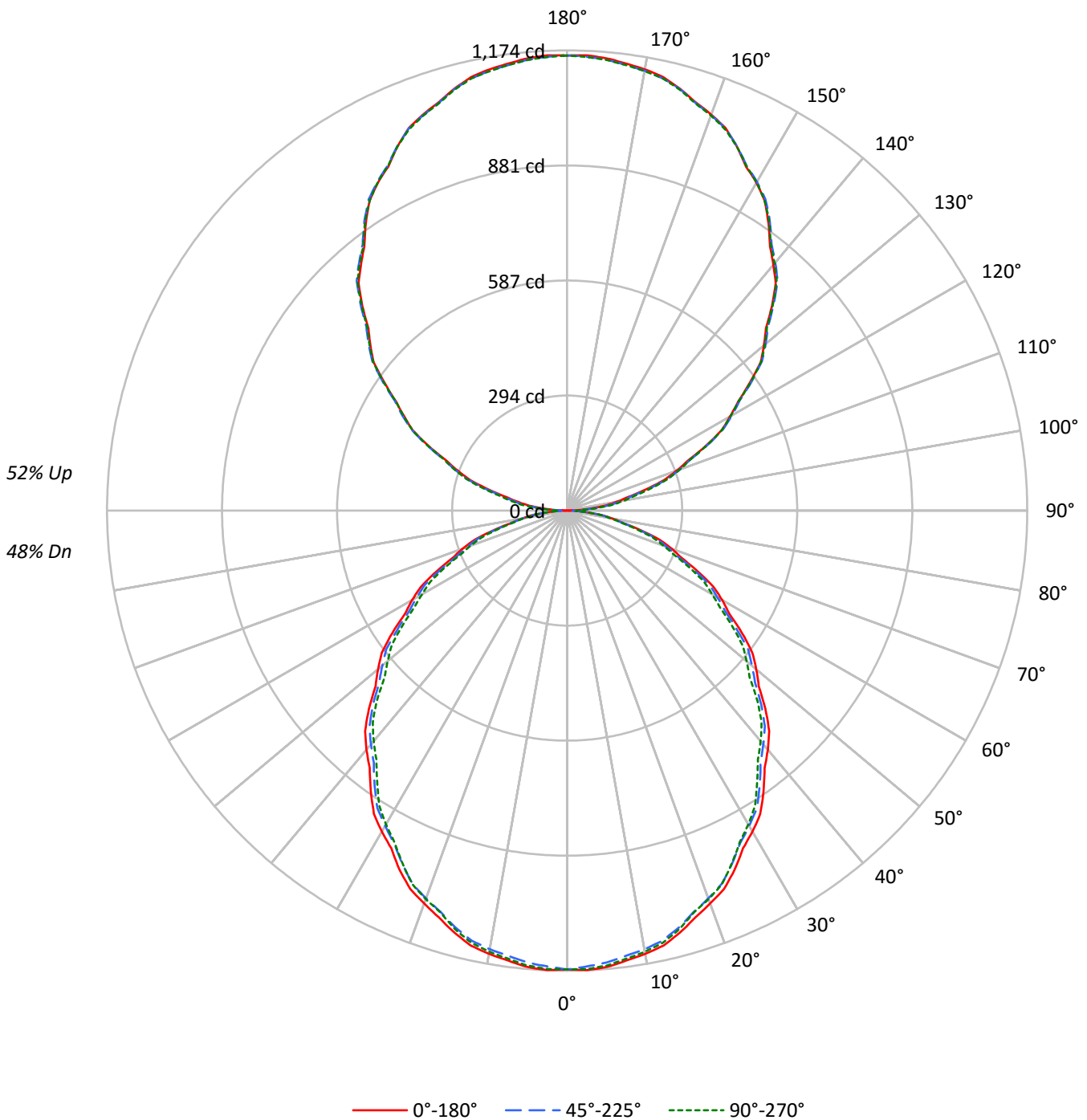
Input Watts (W): 52.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	107	107	107	107	98	98	98	98	82	82	82	68	68	68	55	55	55	48
1	97	93	89	86	89	86	82	79	72	70	68	60	58	56	48	47	46	41
2	89	81	75	70	81	75	70	65	63	59	56	52	50	47	42	40	39	34
3	81	71	64	58	74	66	60	54	56	51	47	46	43	40	38	35	33	29
4	74	63	55	49	68	58	51	46	50	44	40	41	37	34	34	31	28	25
5	68	56	48	42	62	52	45	40	44	39	34	37	33	30	30	27	25	21
6	62	50	42	36	57	47	40	34	40	34	30	33	29	26	27	24	22	19
7	58	45	38	32	53	42	35	30	36	31	26	30	26	23	25	22	19	17
8	54	41	34	28	49	38	31	27	33	27	23	28	24	20	23	20	17	15
9	50	38	30	25	46	35	28	24	30	25	21	26	21	18	21	18	16	13
10	47	35	27	23	43	32	26	21	28	23	19	24	19	17	20	16	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7559	7559	7559
5°	7577	7505	7553
10°	7531	7452	7494
15°	7449	7362	7393
20°	7332	7236	7249
25°	7207	7088	7081
30°	7052	6927	6893
35°	6885	6754	6659
40°	6715	6566	6473
45°	6530	6395	6268
50°	6327	6187	6002
55°	6132	5954	5788
60°	5898	5717	5515
65°	5619	5434	5251
70°	5351	5108	4932
75°	4876	4716	4551
80°	4340	4273	4169
85°	3772	3846	3631



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	110.4	1.8
10°-20°	311.8	5.0
20°-30°	460.3	7.3
30°-40°	537.2	8.5
40°-50°	539.5	8.6
50°-60°	473.6	7.5
60°-70°	352.9	5.6
70°-80°	201.8	3.2
80°-90°	61.2	1.0
90°-100°	77.8	1.2
100°-110°	229.6	3.7
110°-120°	388.9	6.2
120°-130°	511.9	8.1
130°-140°	573.6	9.1
140°-150°	562.1	8.9
150°-160°	472.2	7.5
160°-170°	313.9	5.0
170°-180°	109.8	1.7
0°-30°	882.5	14.0
0°-40°	1419.6	22.6
0°-60°	2432.7	38.7
0°-90°	3048.6	48.5
90°-120°	696.4	11.1
90°-150°	2344.0	37.3
90°-180°	3240.0	51.5
0°-180°	6288.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1170	1170	1170	1170	1170	
5°	1169	1166	1158	1165	1165	111
15°	1114	1111	1101	1106	1106	314
25°	1011	1006	995	996	994	465
35°	873	869	857	852	845	546
45°	715	711	700	690	686	551
55°	545	541	529	521	514	486
65°	368	365	356	348	344	365
75°	195	193	189	186	182	208
85°	51	52	52	51	49	57
90°	1	8	14	19	22	6
95°	59	61	70	76	78	63
105°	206	211	216	221	224	220
115°	389	393	395	394	393	385
125°	568	573	575	573	572	509
135°	739	744	745	745	742	569
145°	895	899	902	902	899	560
155°	1025	1025	1026	1029	1025	472
165°	1114	1112	1113	1116	1111	314
175°	1158	1155	1155	1160	1154	110
180°	1161	1161	1161	1161	1161	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1170.5	1170.5	1170.5	1170.5	1170.5	1170.5	1170.5	1170.5	1170.5	1170.5	1170.5
2.5°	1173.6	1173.0	1172.6	1172.1	1171.5	1170.5	1168.9	1167.2	1165.6	1164.0	1165.6
5°	1168.8	1168.3	1167.9	1167.5	1167.1	1165.8	1163.8	1161.7	1159.7	1157.6	1159.5
7.5°	1158.0	1157.6	1157.2	1156.7	1156.4	1155.0	1152.7	1150.5	1148.3	1145.9	1147.7
10°	1148.3	1148.0	1147.5	1147.1	1146.7	1145.4	1143.1	1140.9	1138.6	1136.3	1138.0
12.5°	1136.5	1135.8	1135.1	1134.3	1133.5	1132.1	1130.1	1127.9	1125.8	1123.7	1125.1
15°	1114.1	1113.5	1112.9	1112.2	1111.6	1110.2	1108.0	1105.6	1103.4	1101.1	1102.2
17.5°	1088.3	1087.4	1086.5	1085.7	1084.8	1083.1	1080.8	1078.4	1076.0	1073.7	1075.0
20°	1066.8	1066.5	1066.0	1065.6	1065.2	1063.6	1061.0	1058.3	1055.6	1052.9	1054.4
22.5°	1045.4	1044.6	1043.9	1043.1	1042.4	1040.8	1038.3	1035.7	1033.2	1030.7	1031.7
25°	1011.3	1010.3	1009.2	1008.2	1007.2	1005.3	1002.6	1000.0	997.3	994.6	995.1
27.5°	971.4	970.9	970.3	969.6	969.0	967.3	964.6	961.8	959.0	956.3	956.4
30°	945.6	944.9	944.3	943.7	943.1	941.2	938.2	935.0	931.9	928.9	928.4
32.5°	917.4	916.4	915.5	914.5	913.6	911.8	909.0	906.2	903.5	900.7	900.0
35°	873.3	872.4	871.6	870.8	870.0	868.2	865.3	862.4	859.5	856.7	855.6
37.5°	827.6	826.5	825.5	824.5	823.4	821.5	818.9	816.1	813.4	810.7	809.1
40°	796.5	795.4	794.4	793.4	792.3	790.4	787.5	784.6	781.8	778.8	777.0
42.5°	763.1	762.2	761.3	760.5	759.6	757.8	754.9	752.0	749.1	746.3	744.6
45°	715.0	714.1	713.3	712.5	711.7	710.0	707.6	705.1	702.6	700.2	697.7
47.5°	663.1	663.2	663.2	663.2	663.3	661.8	658.8	655.9	652.9	650.0	647.4
50°	629.7	629.1	628.5	627.9	627.3	625.7	623.3	620.8	618.3	615.8	613.1
52.5°	595.7	595.2	594.8	594.3	593.9	592.3	589.7	587.0	584.4	581.8	579.4
55°	544.6	543.9	543.3	542.7	542.1	540.3	537.4	534.6	531.6	528.8	526.9
57.5°	490.6	490.4	490.0	489.6	489.4	487.9	485.5	483.1	480.6	478.2	475.8
60°	456.6	455.8	455.0	454.1	453.3	451.7	449.4	447.2	445.0	442.6	440.6
62.5°	421.0	420.4	419.7	419.0	418.4	417.1	415.2	413.2	411.3	409.3	407.2
65°	367.7	367.2	366.8	366.4	366.0	364.7	362.4	360.2	357.8	355.6	353.7
67.5°	316.0	315.1	314.2	313.3	312.5	311.2	309.6	307.9	306.2	304.5	302.9
70°	283.4	282.3	281.3	280.3	279.3	277.9	276.0	274.1	272.2	270.5	269.2
72.5°	247.8	247.1	246.4	245.8	245.0	244.1	242.9	241.7	240.5	239.3	237.9
75°	195.4	195.0	194.6	194.2	193.8	193.1	192.0	191.0	189.9	189.0	188.3
77.5°	147.0	146.9	146.8	146.6	146.4	146.1	145.4	144.9	144.3	143.7	143.4
80°	116.7	116.7	116.7	116.7	116.7	116.5	116.1	115.7	115.2	114.9	114.7
82.5°	90.0	89.7	89.3	89.0	88.7	88.5	88.4	88.4	88.3	88.2	87.8
85°	50.9	51.2	51.4	51.5	51.7	51.9	51.9	51.9	51.9	51.9	51.6
87.5°	20.2	20.5	20.9	21.1	21.5	21.7	21.8	21.9	22.0	22.1	22.4
90°	0.9	2.5	4.1	5.7	7.3	8.8	10.3	11.7	13.0	14.4	15.4
92.5°	21.8	23.0	24.1	25.2	26.4	27.8	29.5	31.2	33.0	34.7	36.0
95°	58.8	59.1	59.6	59.9	60.4	61.5	63.6	65.5	67.6	69.6	71.0
97.5°	97.6	97.7	97.9	98.1	98.3	99.7	102.5	105.2	108.0	110.8	112.1
100°	126.5	126.5	126.5	126.5	126.5	127.8	130.4	133.0	135.6	138.2	140.1
102.5°	157.6	158.4	159.2	160.0	160.8	161.8	163.2	164.5	165.9	167.2	169.2
105°	206.0	207.0	208.0	209.0	210.0	211.2	212.3	213.6	214.7	216.0	217.1
107.5°	259.5	260.5	261.5	262.5	263.5	264.5	265.4	266.4	267.2	268.1	268.8
110°	296.3	297.4	298.4	299.3	300.4	301.2	301.8	302.4	303.0	303.6	304.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	333.9	334.5	335.0	335.6	336.0	336.7	337.4	338.2	338.9	339.7	340.0
115°	389.4	390.2	391.0	391.8	392.6	393.2	393.6	394.0	394.4	394.8	394.7
117.5°	445.1	445.4	445.8	446.1	446.6	446.9	447.3	447.6	448.0	448.4	448.5
120°	479.7	480.8	481.8	482.8	483.8	484.4	484.6	484.8	485.0	485.2	485.2
122.5°	517.4	517.7	518.1	518.4	518.8	519.2	519.8	520.3	520.8	521.4	521.2
125°	568.3	569.5	570.7	571.9	573.1	573.8	574.1	574.3	574.4	574.6	574.3
127.5°	622.5	623.2	623.9	624.6	625.3	625.7	626.0	626.2	626.4	626.7	626.5
130°	655.1	656.0	657.1	658.1	659.1	659.8	660.2	660.6	661.0	661.4	661.2
132.5°	687.6	689.2	690.9	692.5	694.2	695.0	694.9	694.8	694.7	694.6	694.5
135°	739.0	740.3	741.5	742.7	744.0	744.6	744.8	745.0	745.2	745.4	745.4
137.5°	787.6	788.7	789.9	791.0	792.2	793.0	793.4	793.9	794.3	794.8	795.0
140°	818.6	819.6	820.6	821.6	822.6	823.4	824.0	824.7	825.2	825.8	826.3
142.5°	849.7	850.5	851.4	852.2	853.1	853.9	854.6	855.4	856.1	856.9	857.1
145°	895.4	896.2	897.0	897.8	898.6	899.3	899.9	900.5	901.2	901.7	901.7
147.5°	937.7	938.2	938.6	939.0	939.4	940.0	940.4	940.8	941.4	941.8	942.4
150°	965.9	965.7	965.5	965.3	965.1	965.4	966.2	967.0	967.8	968.6	968.6
152.5°	989.0	989.3	989.5	989.9	990.2	990.4	990.8	991.0	991.4	991.8	992.2
155°	1024.6	1024.6	1024.6	1024.6	1024.6	1024.7	1024.9	1025.1	1025.3	1025.6	1026.4
157.5°	1056.4	1056.0	1055.5	1055.1	1054.6	1054.5	1054.7	1054.9	1055.2	1055.3	1056.1
160°	1075.2	1074.6	1074.0	1073.4	1072.8	1072.6	1072.8	1073.0	1073.2	1073.4	1074.2
162.5°	1091.8	1091.4	1090.9	1090.5	1090.0	1089.8	1089.9	1089.9	1090.0	1090.0	1091.0
165°	1114.1	1113.7	1113.2	1112.9	1112.4	1112.3	1112.6	1112.8	1112.9	1113.1	1113.9
167.5°	1132.8	1132.0	1131.2	1130.4	1129.6	1129.3	1129.3	1129.3	1129.3	1129.3	1130.4
170°	1143.0	1142.2	1141.4	1140.6	1139.8	1139.3	1139.3	1139.3	1139.3	1139.3	1140.6
172.5°	1150.2	1149.4	1148.6	1147.8	1147.0	1146.6	1146.6	1146.6	1146.6	1146.6	1147.8
175°	1158.3	1157.5	1156.7	1155.9	1155.1	1154.7	1154.7	1154.7	1154.7	1154.7	1155.9
177.5°	1162.5	1161.8	1161.2	1160.6	1159.9	1159.5	1159.3	1159.2	1159.0	1158.9	1159.8
180°	1161.0	1161.0	1161.0	1161.0	1161.0	1161.0	1161.0	1161.0	1161.0	1161.0	1161.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1170.5	1170.5	1170.5	1170.5	1170.5	1170.5	1170.5	1170.5
2.5°	1167.2	1168.9	1170.5	1171.3	1171.1	1170.9	1170.7	1170.5
5°	1161.4	1163.1	1165.0	1165.8	1165.6	1165.5	1165.2	1165.0
7.5°	1149.6	1151.4	1153.2	1154.0	1153.8	1153.6	1153.3	1153.2
10°	1139.6	1141.3	1142.9	1143.6	1143.4	1143.2	1143.0	1142.8
12.5°	1126.3	1127.7	1129.0	1129.6	1129.6	1129.5	1129.5	1129.4
15°	1103.2	1104.2	1105.3	1105.7	1105.7	1105.7	1105.7	1105.7
17.5°	1076.3	1077.5	1078.8	1079.0	1077.9	1076.9	1075.8	1074.9
20°	1055.9	1057.3	1058.7	1058.9	1057.9	1056.9	1055.9	1054.8
22.5°	1032.6	1033.6	1034.6	1034.7	1033.9	1033.2	1032.5	1031.9
25°	995.4	995.9	996.3	996.1	995.6	995.0	994.3	993.7
27.5°	956.4	956.5	956.6	956.4	955.7	955.1	954.5	953.9
30°	928.1	927.6	927.2	926.8	926.1	925.5	924.9	924.3
32.5°	899.2	898.5	897.8	896.8	895.7	894.6	893.5	892.4
35°	854.6	853.5	852.6	851.2	849.5	847.9	846.2	844.6
37.5°	807.6	806.1	804.6	803.3	802.5	801.5	800.6	799.6
40°	775.2	773.3	771.4	770.2	769.5	769.0	768.4	767.8
42.5°	742.9	741.2	739.5	738.2	737.3	736.3	735.3	734.4
45°	695.2	692.7	690.3	688.7	688.1	687.5	686.9	686.3
47.5°	644.9	642.4	639.9	637.9	636.5	635.1	633.6	632.1
50°	610.5	607.8	605.1	603.1	601.6	600.2	598.8	597.4
52.5°	577.1	574.7	572.4	570.4	568.8	567.2	565.6	564.0
55°	525.1	523.3	521.4	519.8	518.3	516.8	515.4	514.0
57.5°	473.5	471.1	468.7	467.1	466.3	465.6	464.8	464.0
60°	438.5	436.5	434.4	432.7	431.2	429.8	428.4	427.0
62.5°	404.9	402.7	400.5	398.8	397.7	396.5	395.5	394.3
65°	352.0	350.1	348.2	346.9	346.1	345.3	344.4	343.6
67.5°	301.4	299.8	298.3	297.2	296.8	296.2	295.7	295.2
70°	268.0	266.7	265.5	264.5	263.6	262.8	262.0	261.2
72.5°	236.5	235.1	233.7	232.6	231.8	231.0	230.2	229.3
75°	187.7	187.1	186.5	185.7	184.9	184.0	183.2	182.4
77.5°	143.0	142.6	142.2	141.8	141.2	140.6	140.1	139.5
80°	114.4	114.2	114.0	113.7	113.3	112.9	112.4	112.1
82.5°	87.4	87.0	86.7	86.5	86.4	86.3	86.2	86.1
85°	51.5	51.3	51.0	50.7	50.3	49.9	49.5	49.0
87.5°	22.6	22.7	22.9	22.9	22.7	22.6	22.3	22.1
90°	16.5	17.5	18.5	19.3	19.9	20.5	21.0	21.7
92.5°	37.4	38.7	40.0	40.8	41.3	41.7	42.2	42.6
95°	72.4	73.7	75.2	76.1	76.5	76.9	77.3	77.7
97.5°	113.4	114.8	116.1	116.8	117.1	117.3	117.6	117.8
100°	141.9	143.7	145.4	146.6	147.0	147.4	147.8	148.2
102.5°	171.1	173.1	175.0	176.3	176.8	177.5	178.0	178.5
105°	218.4	219.5	220.8	221.7	222.3	222.8	223.5	224.1
107.5°	269.4	270.0	270.5	270.9	270.8	270.8	270.7	270.7
110°	304.8	305.4	306.0	306.2	306.0	305.8	305.6	305.4



TEST NUMBER: P333417-940

CATALOG NUMBER: S125DIW-S850D1050U940-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	340.3	340.5	340.8	340.8	340.5	340.1	339.7	339.4
115°	394.4	394.2	394.0	393.9	393.6	393.4	393.2	393.1
117.5°	448.6	448.8	449.0	448.6	447.8	447.0	446.2	445.4
120°	485.2	485.2	485.2	484.8	484.0	483.2	482.4	481.6
122.5°	521.0	520.8	520.7	520.3	519.7	519.0	518.4	517.7
125°	573.8	573.5	573.0	572.7	572.6	572.3	572.1	571.9
127.5°	626.2	626.1	625.9	625.6	625.2	624.8	624.4	624.0
130°	661.0	660.8	660.6	660.3	659.9	659.5	659.1	658.7
132.5°	694.2	694.0	693.8	693.5	692.9	692.3	691.8	691.2
135°	745.4	745.4	745.4	745.0	744.2	743.4	742.6	741.8
137.5°	795.2	795.5	795.7	795.3	794.3	793.4	792.3	791.3
140°	826.6	827.1	827.4	827.2	826.2	825.1	824.1	823.1
142.5°	857.4	857.6	857.9	857.5	856.5	855.5	854.5	853.5
145°	901.7	901.7	901.7	901.4	900.8	900.2	899.6	899.0
147.5°	942.8	943.3	943.8	943.3	942.0	940.6	939.2	937.9
150°	968.6	968.6	968.6	968.4	968.0	967.6	967.1	966.8
152.5°	992.7	993.2	993.6	993.5	992.8	992.1	991.3	990.6
155°	1027.2	1028.0	1028.8	1028.6	1027.6	1026.6	1025.6	1024.6
157.5°	1056.9	1057.7	1058.5	1058.3	1056.9	1055.6	1054.3	1053.0
160°	1075.0	1075.8	1076.7	1076.5	1075.5	1074.5	1073.5	1072.5
162.5°	1092.0	1092.9	1093.9	1093.8	1092.6	1091.5	1090.3	1089.1
165°	1114.7	1115.5	1116.3	1116.2	1115.0	1113.7	1112.6	1111.3
167.5°	1131.7	1132.8	1134.1	1134.1	1132.8	1131.6	1130.3	1129.1
170°	1141.7	1143.0	1144.2	1144.1	1142.6	1141.3	1139.9	1138.4
172.5°	1149.0	1150.2	1151.4	1151.4	1150.1	1148.9	1147.6	1146.4
175°	1157.1	1158.3	1159.6	1159.4	1158.1	1156.6	1155.2	1153.8
177.5°	1160.8	1161.8	1162.7	1162.6	1161.5	1160.4	1159.3	1158.2
180°	1161.0	1161.0	1161.0	1161.0	1161.0	1161.0	1161.0	1161.0

(END OF REPORT)