

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: P333408-840

Luminaire Tested: **S125DIW-S850D770U840-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333408-840
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-S850D770U840-4F0-1E-UDD-D
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 770 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6415.3 lumens
Efficiency: N/A
Efficacy: 142.6 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

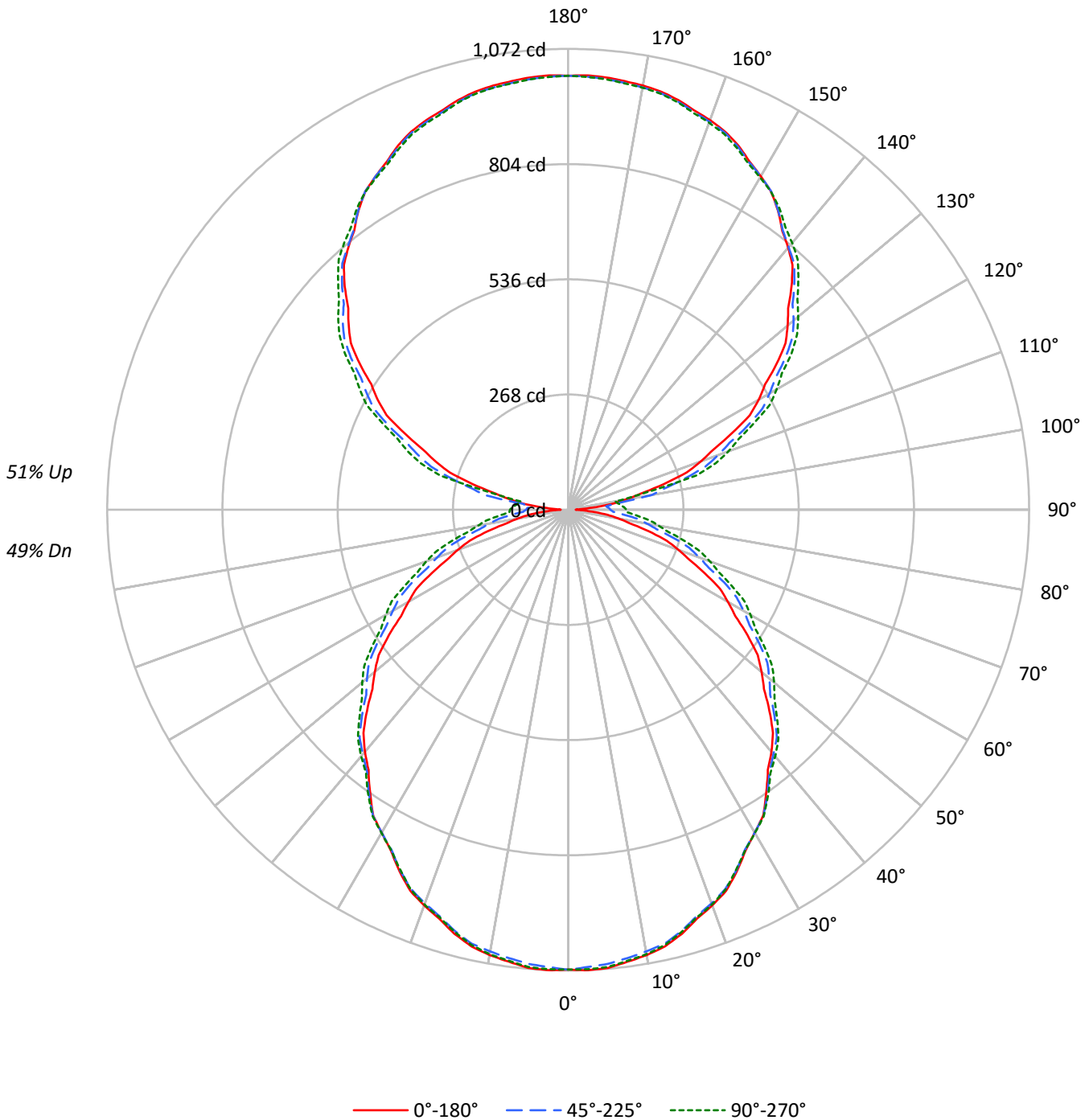
Input Watts (W): 45
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P333408-840

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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	83	83	83	68	68	68	55	55	55	49
1	97	92	88	84	89	85	81	78	71	69	66	59	57	55	47	46	45	39
2	88	80	74	68	80	74	68	63	62	58	54	51	48	46	41	39	37	32
3	80	70	62	56	73	65	58	53	54	49	45	45	41	38	36	34	31	27
4	73	62	54	48	67	57	50	44	48	43	38	40	36	33	32	29	27	23
5	67	55	47	41	61	51	43	38	43	37	33	36	31	28	29	26	23	20
6	62	49	41	35	56	46	38	33	39	33	29	32	28	24	26	23	20	17
7	57	44	36	31	52	41	34	29	35	29	25	29	25	22	24	21	18	15
8	53	40	32	27	48	37	30	25	32	26	22	27	22	19	22	19	16	14
9	49	37	29	24	45	34	27	23	29	24	20	25	20	17	20	17	15	12
10	46	34	26	21	42	31	25	20	27	22	18	23	18	16	19	16	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6909	6909	6909
5°	6923	6782	6803
10°	6874	6661	6651
15°	6793	6515	6456
20°	6682	6336	6262
25°	6551	6144	6023
30°	6392	5934	5806
35°	6242	5740	5607
40°	6092	5535	5406
45°	5921	5360	5229
50°	5758	5171	5072
55°	5562	4992	4887
60°	5348	4788	4699
65°	5124	4575	4486
70°	4871	4283	4269
75°	4469	4001	4001
80°	3945	3661	3710
85°	3453	3433	3619



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.2	1.6
10°-20°	287.2	4.5
20°-30°	427.1	6.7
30°-40°	505.9	7.9
40°-50°	523.0	8.2
50°-60°	481.8	7.5
60°-70°	389.5	6.1
70°-80°	260.8	4.1
80°-90°	137.4	2.1
90°-100°	112.6	1.8
100°-110°	282.0	4.4
110°-120°	447.5	7.0
120°-130°	547.5	8.5
130°-140°	575.3	9.0
140°-150°	533.1	8.3
150°-160°	429.8	6.7
160°-170°	277.9	4.3
170°-180°	95.9	1.5
0°-30°	815.4	12.7
0°-40°	1321.2	20.6
0°-60°	2326.0	36.3
0°-90°	3113.7	48.5
90°-120°	842.1	13.1
90°-150°	2498.1	38.9
90°-180°	3302.0	51.5
0°-180°	6415.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1070	1070	1070	1070	1070	
5°	1070	1067	1060	1068	1068	101
15°	1022	1022	1015	1021	1017	288
25°	928	931	925	929	924	427
35°	803	810	808	811	811	503
45°	662	673	678	686	687	511
55°	509	526	542	553	558	455
65°	350	374	400	415	420	347
75°	193	221	254	274	280	205
85°	58	92	129	151	160	61
90°	18	57	98	125	135	13
95°	56	80	89	114	123	65
105°	229	250	281	301	308	243
115°	419	431	458	474	476	416
125°	592	597	617	630	634	528
135°	735	738	744	756	757	566
145°	850	851	851	856	856	531
155°	935	931	932	934	929	431
165°	987	983	983	987	982	279
175°	1010	1005	1006	1011	1005	96
180°	1010	1010	1010	1010	1010	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8
2.5°	1072.3	1072.0	1071.6	1071.2	1070.8	1070.0	1068.6	1067.3	1066.0	1064.7	1066.0
5°	1069.8	1069.3	1068.8	1068.3	1067.9	1066.8	1065.2	1063.6	1062.0	1060.4	1062.2
7.5°	1060.4	1060.2	1060.0	1059.8	1059.6	1058.6	1057.0	1055.3	1053.6	1052.0	1053.6
10°	1052.0	1052.0	1052.0	1052.0	1052.0	1051.1	1049.1	1047.3	1045.4	1043.6	1045.2
12.5°	1040.2	1040.4	1040.6	1040.8	1041.0	1040.3	1038.8	1037.3	1035.8	1034.3	1035.6
15°	1021.6	1021.8	1022.0	1022.2	1022.5	1021.8	1020.2	1018.5	1016.8	1015.2	1016.6
17.5°	997.2	997.6	998.2	998.6	999.1	998.5	996.8	995.2	993.6	992.0	993.0
20°	979.6	980.1	980.5	981.0	981.5	980.9	979.3	977.7	975.9	974.3	975.0
22.5°	959.5	960.3	961.1	962.0	962.8	962.3	960.5	958.7	956.8	955.0	955.9
25°	928.2	928.9	929.6	930.3	931.0	930.6	929.3	927.9	926.5	925.0	925.9
27.5°	893.3	894.4	895.4	896.5	897.5	897.2	895.6	894.0	892.4	890.9	891.5
30°	867.4	868.8	870.2	871.5	872.9	872.9	871.5	870.2	868.8	867.4	867.9
32.5°	843.8	845.1	846.3	847.5	848.7	848.8	847.8	846.8	845.8	844.8	845.2
35°	803.3	805.1	806.7	808.3	809.9	810.4	809.7	809.0	808.3	807.6	808.3
37.5°	762.9	764.4	765.9	767.4	768.9	769.5	769.2	769.0	768.8	768.6	769.5
40°	735.2	737.1	738.9	740.8	742.7	743.5	743.3	743.1	742.8	742.6	743.5
42.5°	705.0	707.4	709.8	712.3	714.7	716.2	716.7	717.2	717.7	718.2	719.3
45°	661.8	664.4	666.9	669.4	672.1	673.9	675.1	676.2	677.4	678.5	680.2
47.5°	617.5	620.0	622.3	624.7	627.0	629.2	631.3	633.3	635.2	637.2	639.6
50°	587.3	589.9	592.5	595.0	597.5	600.2	602.7	605.3	607.8	610.4	613.0
52.5°	555.4	558.6	561.7	564.8	567.9	571.1	574.2	577.3	580.5	583.6	586.3
55°	508.7	512.4	516.1	519.9	523.6	527.4	531.1	534.8	538.5	542.2	544.8
57.5°	460.8	465.3	469.8	474.2	478.8	483.1	487.5	491.7	495.9	500.3	503.2
60°	429.0	433.6	438.3	442.9	447.6	452.3	457.0	461.6	466.3	470.9	474.4
62.5°	397.9	402.5	407.3	411.9	416.6	421.4	426.5	431.5	436.5	441.5	445.5
65°	350.3	355.7	361.0	366.4	371.7	377.2	382.8	388.4	394.0	399.6	403.1
67.5°	305.4	310.6	315.8	320.9	326.1	331.5	337.2	343.0	348.6	354.3	358.5
70°	272.7	278.0	283.4	288.8	294.2	299.8	305.9	311.9	318.0	324.1	328.5
72.5°	240.9	246.3	251.9	257.4	263.0	269.0	275.7	282.4	288.9	295.6	300.3
75°	193.0	199.0	205.1	211.2	217.2	224.0	231.5	238.9	246.3	253.8	258.4
77.5°	147.0	154.0	161.1	168.0	175.0	182.1	189.2	196.4	203.6	210.9	215.9
80°	118.6	125.5	132.5	139.5	146.5	153.9	161.9	169.8	177.7	185.6	190.8
82.5°	92.5	99.9	107.2	114.6	122.0	129.7	137.8	145.9	154.0	162.2	167.1
85°	57.7	65.3	73.1	80.8	88.5	96.3	104.5	112.7	120.9	129.0	134.1
87.5°	32.9	40.6	48.3	56.0	63.7	71.7	79.9	88.1	96.1	104.3	109.9
90°	17.6	26.4	35.1	43.9	52.7	61.6	70.7	79.8	88.9	98.0	104.1
92.5°	26.7	32.6	38.6	44.5	50.5	58.1	67.2	76.3	85.4	94.6	100.6
95°	56.2	61.8	67.4	73.0	78.6	82.1	83.7	85.3	86.9	88.6	94.5
97.5°	101.4	107.8	114.1	120.5	126.8	127.5	122.7	117.9	113.0	108.2	108.4
100°	136.5	141.9	147.2	152.7	158.0	164.8	173.0	181.1	189.2	197.3	177.4
102.5°	172.2	177.3	182.5	187.6	192.8	199.2	206.9	214.5	222.2	229.8	229.9
105°	229.4	233.8	238.2	242.6	247.0	252.7	259.7	266.7	273.7	280.6	285.3
107.5°	288.9	292.1	295.3	298.4	301.6	306.7	313.8	320.8	327.9	334.9	339.5
110°	327.6	330.4	333.2	336.0	338.8	343.7	350.5	357.3	364.2	371.0	375.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	364.8	367.4	370.0	372.6	375.3	379.8	386.4	392.9	399.5	406.0	409.6
115°	419.3	421.8	424.2	426.8	429.2	433.5	439.8	446.0	452.2	458.5	462.0
117.5°	475.9	477.0	478.0	479.0	480.1	483.7	490.1	496.4	502.8	509.3	512.3
120°	511.8	512.4	512.9	513.4	513.9	517.2	523.0	528.9	534.7	540.6	544.2
122.5°	542.7	543.7	544.6	545.6	546.5	549.8	555.1	560.6	565.9	571.4	574.8
125°	591.6	592.5	593.5	594.4	595.3	598.1	602.8	607.4	612.1	616.7	619.9
127.5°	637.4	637.9	638.5	639.1	639.7	642.0	645.7	649.3	653.1	656.8	659.9
130°	666.1	666.7	667.3	667.9	668.5	670.6	674.0	677.4	680.9	684.3	687.0
132.5°	694.0	694.9	695.8	696.8	697.7	699.2	701.4	703.5	705.7	707.8	710.9
135°	734.7	735.4	736.2	737.0	737.7	738.7	740.0	741.3	742.7	744.0	746.6
137.5°	772.0	772.6	773.4	774.1	774.8	775.3	775.8	776.3	776.8	777.3	780.1
140°	795.7	796.1	796.4	796.7	797.1	797.3	797.3	797.4	797.5	797.5	800.4
142.5°	817.9	817.9	817.9	817.9	817.9	818.1	818.3	818.6	818.9	819.2	821.4
145°	850.3	850.4	850.5	850.6	850.7	850.8	850.8	850.8	850.8	850.8	852.1
147.5°	877.8	877.7	877.6	877.6	877.5	877.6	877.8	877.9	878.1	878.3	878.9
150°	895.6	895.3	895.0	894.6	894.3	894.3	894.6	895.0	895.3	895.6	896.1
152.5°	913.0	912.3	911.6	910.9	910.1	909.9	910.3	910.6	910.9	911.2	911.6
155°	935.3	934.3	933.3	932.3	931.4	931.0	931.4	931.7	932.0	932.3	932.8
157.5°	952.5	952.0	951.4	950.8	950.2	949.9	949.9	950.0	950.0	950.0	950.6
160°	964.5	963.5	962.5	961.5	960.6	960.1	960.3	960.5	960.6	960.8	961.5
162.5°	974.1	973.1	972.1	971.1	970.1	969.7	969.9	970.1	970.2	970.4	971.3
165°	986.9	985.9	985.0	984.0	983.0	982.6	982.7	982.9	983.1	983.2	984.2
167.5°	996.5	995.5	994.5	993.5	992.4	992.0	992.2	992.3	992.5	992.7	993.8
170°	1002.0	1000.8	999.6	998.5	997.2	996.7	996.9	997.1	997.2	997.4	998.8
172.5°	1005.5	1004.4	1003.2	1002.0	1000.9	1000.5	1000.8	1001.1	1001.4	1001.7	1002.8
175°	1009.5	1008.5	1007.4	1006.4	1005.4	1005.0	1005.2	1005.3	1005.5	1005.7	1007.0
177.5°	1011.2	1010.4	1009.7	1008.9	1008.0	1007.6	1007.8	1007.9	1008.0	1008.2	1009.2
180°	1009.5	1009.5	1009.5	1009.5	1009.5	1009.5	1009.5	1009.5	1009.5	1009.5	1009.5



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8
2.5°	1067.3	1068.6	1070.0	1070.6	1070.4	1070.2	1070.0	1069.8
5°	1064.1	1065.9	1067.8	1068.6	1068.3	1068.1	1067.9	1067.7
7.5°	1055.2	1056.8	1058.4	1059.1	1058.9	1058.7	1058.4	1058.2
10°	1046.8	1048.4	1050.1	1050.8	1050.6	1050.4	1050.1	1049.9
12.5°	1036.8	1038.1	1039.4	1039.7	1039.1	1038.4	1037.8	1037.2
15°	1018.0	1019.5	1020.9	1021.1	1020.2	1019.2	1018.2	1017.3
17.5°	994.1	995.2	996.2	996.5	995.9	995.4	994.8	994.3
20°	975.7	976.4	977.1	977.4	977.4	977.4	977.4	977.4
22.5°	956.8	957.7	958.6	958.8	958.2	957.7	957.0	956.5
25°	927.0	927.9	928.8	928.7	927.5	926.3	925.1	924.0
27.5°	892.1	892.8	893.4	893.6	893.1	892.7	892.3	891.9
30°	868.3	868.8	869.2	869.4	869.1	868.9	868.7	868.4
32.5°	845.7	846.1	846.6	846.7	846.5	846.3	846.0	845.8
35°	809.0	809.7	810.4	810.7	810.7	810.7	810.7	810.7
37.5°	770.4	771.3	772.2	772.7	772.6	772.5	772.4	772.3
40°	744.4	745.4	746.3	747.0	747.4	747.9	748.4	748.8
42.5°	720.4	721.5	722.7	723.3	723.4	723.5	723.6	723.7
45°	681.9	683.5	685.1	686.0	686.3	686.5	686.7	687.0
47.5°	642.0	644.4	646.7	648.2	648.7	649.2	649.7	650.3
50°	615.5	618.1	620.7	622.3	623.0	623.7	624.4	625.1
52.5°	589.1	591.8	594.5	596.2	596.7	597.2	597.7	598.2
55°	547.3	550.0	552.5	554.2	555.1	556.1	557.0	558.0
57.5°	506.1	509.1	512.0	513.8	514.5	515.2	515.9	516.6
60°	477.9	481.4	484.9	487.0	487.7	488.4	489.1	489.8
62.5°	449.3	453.1	457.1	459.4	460.3	461.2	462.0	462.9
65°	406.6	410.1	413.5	415.8	416.8	417.7	418.6	419.5
67.5°	362.7	367.0	371.2	374.0	375.2	376.4	377.6	378.8
70°	333.0	337.4	341.8	344.7	346.1	347.5	348.9	350.3
72.5°	305.2	309.9	314.8	317.7	318.7	319.7	320.7	321.7
75°	263.2	267.8	272.5	275.4	276.5	277.7	278.8	280.0
77.5°	221.1	226.2	231.4	234.4	235.3	236.2	237.1	238.1
80°	195.9	201.1	206.1	209.1	210.2	211.1	212.0	212.9
82.5°	172.0	176.9	181.9	185.2	186.9	188.5	190.3	192.0
85°	139.3	144.4	149.6	153.0	154.9	156.7	158.6	160.5
87.5°	115.4	120.9	126.4	130.1	131.8	133.5	135.2	137.0
90°	110.4	116.5	122.7	126.9	129.1	131.2	133.3	135.4
92.5°	106.6	112.6	118.7	122.6	124.4	126.3	128.2	130.1
95°	100.5	106.4	112.4	116.1	117.8	119.5	121.1	122.7
97.5°	108.6	108.8	109.0	109.9	111.4	113.0	114.6	116.2
100°	157.5	137.6	117.8	108.3	109.0	109.7	110.4	111.2
102.5°	229.9	229.9	229.9	225.0	215.1	205.2	195.3	185.4
105°	290.0	294.7	299.3	302.4	303.9	305.3	306.8	308.2
107.5°	344.2	348.8	353.5	356.3	357.2	358.2	359.1	360.1
110°	378.9	382.8	386.8	389.6	391.4	393.2	395.1	396.8



TEST NUMBER: P333408-840

CATALOG NUMBER: S125DIW-S850D770U840-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	413.2	416.9	420.4	422.9	424.3	425.8	427.2	428.6
115°	465.5	469.0	472.5	474.5	474.9	475.3	475.7	476.2
117.5°	515.4	518.6	521.6	523.7	524.9	526.0	527.1	528.4
120°	547.9	551.5	555.1	557.2	557.7	558.4	558.9	559.5
122.5°	578.2	581.7	585.1	587.0	587.5	587.9	588.3	588.9
125°	622.9	625.9	629.0	630.9	631.6	632.2	632.9	633.6
127.5°	663.0	666.1	669.1	670.8	670.9	671.1	671.2	671.3
130°	689.7	692.6	695.3	696.8	697.2	697.5	697.8	698.2
132.5°	714.2	717.3	720.4	722.2	722.3	722.5	722.6	722.8
135°	749.3	752.0	754.8	756.2	756.3	756.5	756.7	756.8
137.5°	782.9	785.8	788.5	790.0	790.0	790.1	790.2	790.2
140°	803.3	806.2	809.1	810.5	810.4	810.4	810.3	810.2
142.5°	823.6	826.0	828.2	829.3	829.2	829.2	829.1	829.0
145°	853.4	854.7	856.2	856.8	856.7	856.6	856.6	856.5
147.5°	879.5	880.0	880.6	880.5	879.7	879.0	878.2	877.4
150°	896.4	896.7	897.1	896.7	895.5	894.4	893.3	892.2
152.5°	911.9	912.2	912.6	912.2	911.0	909.9	908.7	907.6
155°	933.3	933.8	934.3	933.9	932.6	931.3	930.0	928.6
157.5°	951.1	951.6	952.1	951.7	950.4	949.1	947.8	946.4
160°	962.1	962.8	963.4	963.1	961.8	960.5	959.2	957.8
162.5°	972.2	973.1	974.1	973.8	972.4	970.9	969.5	968.0
165°	985.2	986.2	987.2	987.0	985.7	984.4	983.1	981.7
167.5°	995.0	996.2	997.4	997.3	995.8	994.3	992.8	991.3
170°	1000.1	1001.5	1002.8	1002.7	1001.2	999.7	998.2	996.7
172.5°	1004.0	1005.2	1006.4	1006.2	1004.8	1003.3	1001.8	1000.3
175°	1008.4	1009.7	1011.0	1010.9	1009.5	1007.9	1006.4	1004.9
177.5°	1010.1	1011.0	1012.0	1011.9	1010.8	1009.8	1008.7	1007.6
180°	1009.5	1009.5	1009.5	1009.5	1009.5	1009.5	1009.5	1009.5

(END OF REPORT)