

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

Luminaire Tested: **S125DIW-S850D770U835-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333408
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-S850D770U835-4F0-1E-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: 6352.7 lumens
Efficiency: N/A
Efficacy: 141.2 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

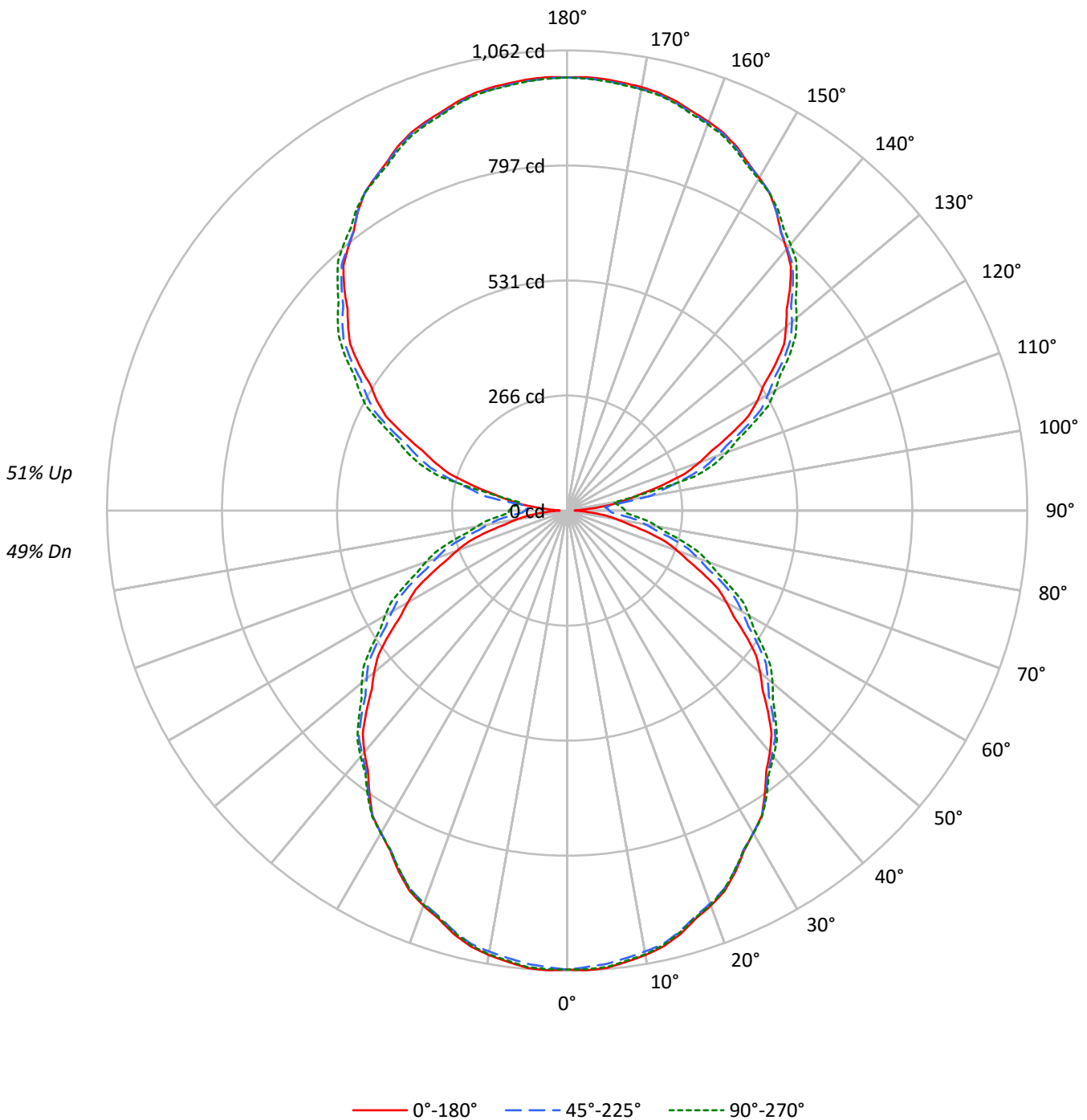
Input Watts (W): 45
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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°	6841	6841	6841
5°	6855	6715	6737
10°	6806	6595	6585
15°	6726	6452	6393
20°	6616	6274	6201
25°	6486	6084	5964
30°	6329	5876	5749
35°	6182	5684	5552
40°	6032	5481	5353
45°	5863	5308	5178
50°	5702	5120	5022
55°	5508	4943	4839
60°	5296	4741	4653
65°	5075	4530	4443
70°	4822	4240	4228
75°	4425	3962	3962
80°	3905	3625	3673
85°	3417	3398	3583



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.2	1.6
10°-20°	284.4	4.5
20°-30°	422.9	6.7
30°-40°	500.9	7.9
40°-50°	517.9	8.2
50°-60°	477.1	7.5
60°-70°	385.7	6.1
70°-80°	258.3	4.1
80°-90°	136.0	2.1
90°-100°	111.5	1.8
100°-110°	279.3	4.4
110°-120°	443.2	7.0
120°-130°	542.2	8.5
130°-140°	569.7	9.0
140°-150°	527.9	8.3
150°-160°	425.6	6.7
160°-170°	275.2	4.3
170°-180°	94.9	1.5
0°-30°	807.4	12.7
0°-40°	1308.3	20.6
0°-60°	2303.3	36.3
0°-90°	3083.3	48.5
90°-120°	833.9	13.1
90°-150°	2473.7	38.9
90°-180°	3269.0	51.5
0°-180°	6352.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1059	1059	1059	1059	1059	
5°	1059	1057	1050	1058	1057	100
15°	1012	1012	1005	1011	1007	285
25°	919	922	916	920	915	423
35°	796	802	800	803	803	498
45°	655	666	672	679	680	506
55°	504	520	537	548	552	450
65°	347	371	396	411	415	344
75°	191	218	251	271	277	203
85°	57	92	128	150	159	61
90°	17	57	97	124	134	13
95°	56	80	88	113	122	64
105°	227	247	278	298	305	241
115°	415	427	454	469	472	412
125°	586	591	611	624	627	523
135°	728	731	737	748	749	561
145°	842	842	842	848	848	526
155°	926	922	923	925	920	427
165°	977	973	974	978	972	276
175°	1000	995	996	1001	995	95
180°	1000	1000	1000	1000	1000	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3
2.5°	1061.8	1061.5	1061.1	1060.7	1060.3	1059.5	1058.2	1056.9	1055.6	1054.3	1055.6
5°	1059.3	1058.9	1058.4	1057.9	1057.5	1056.4	1054.8	1053.2	1051.6	1050.0	1051.8
7.5°	1050.0	1049.8	1049.6	1049.4	1049.2	1048.3	1046.7	1045.0	1043.3	1041.7	1043.3
10°	1041.7	1041.7	1041.7	1041.7	1041.7	1040.8	1038.9	1037.1	1035.2	1033.4	1035.0
12.5°	1030.0	1030.2	1030.4	1030.6	1030.8	1030.1	1028.7	1027.2	1025.7	1024.2	1025.5
15°	1011.6	1011.8	1012.0	1012.2	1012.5	1011.8	1010.2	1008.6	1006.9	1005.3	1006.7
17.5°	987.5	987.9	988.4	988.8	989.3	988.7	987.1	985.5	983.9	982.3	983.3
20°	970.0	970.5	970.9	971.4	971.9	971.3	969.7	968.1	966.4	964.8	965.5
22.5°	950.1	950.9	951.7	952.6	953.4	952.9	951.1	949.3	947.5	945.7	946.6
25°	919.1	919.8	920.5	921.2	921.9	921.5	920.2	918.8	917.4	916.0	916.9
27.5°	884.6	885.7	886.7	887.7	888.7	888.4	886.9	885.3	883.7	882.2	882.8
30°	858.9	860.3	861.7	863.0	864.4	864.4	863.0	861.7	860.3	858.9	859.4
32.5°	835.6	836.8	838.0	839.2	840.4	840.5	839.5	838.5	837.5	836.5	836.9
35°	795.5	797.2	798.8	800.4	802.0	802.5	801.8	801.1	800.4	799.7	800.4
37.5°	755.4	756.9	758.4	759.9	761.4	762.0	761.7	761.5	761.3	761.1	762.0
40°	728.0	729.9	731.7	733.6	735.4	736.2	736.0	735.8	735.5	735.3	736.2
42.5°	698.1	700.5	702.9	705.3	707.7	709.2	709.7	710.2	710.7	711.2	712.3
45°	655.3	657.9	660.4	662.9	665.5	667.3	668.5	669.6	670.8	671.9	673.6
47.5°	611.5	613.9	616.2	618.6	620.9	623.1	625.1	627.1	629.0	631.0	633.4
50°	581.6	584.1	586.7	589.2	591.7	594.3	596.8	599.4	601.9	604.4	607.0
52.5°	550.0	553.1	556.2	559.3	562.4	565.5	568.6	571.7	574.8	577.9	580.6
55°	503.7	507.4	511.1	514.8	518.5	522.2	525.9	529.6	533.2	536.9	539.5
57.5°	456.3	460.8	465.2	469.6	474.1	478.4	482.7	486.9	491.1	495.4	498.3
60°	424.8	429.4	434.0	438.6	443.2	447.9	452.5	457.1	461.7	466.3	469.8
62.5°	394.0	398.6	403.3	407.9	412.5	417.3	422.3	427.3	432.2	437.2	441.1
65°	346.9	352.2	357.5	362.8	368.1	373.5	379.1	384.6	390.2	395.7	399.2
67.5°	302.4	307.6	312.7	317.8	322.9	328.3	333.9	339.6	345.2	350.8	355.0
70°	270.0	275.3	280.6	286.0	291.3	296.9	302.9	308.9	314.9	320.9	325.3
72.5°	238.5	243.9	249.4	254.9	260.4	266.4	273.0	279.6	286.1	292.7	297.4
75°	191.1	197.1	203.1	209.1	215.1	221.8	229.2	236.6	243.9	251.3	255.9
77.5°	145.6	152.5	159.5	166.4	173.3	180.3	187.4	194.5	201.6	208.8	213.8
80°	117.4	124.3	131.2	138.1	145.1	152.4	160.3	168.1	176.0	183.8	188.9
82.5°	91.6	98.9	106.2	113.5	120.8	128.4	136.5	144.5	152.5	160.6	165.5
85°	57.1	64.7	72.4	80.0	87.6	95.4	103.5	111.6	119.7	127.7	132.8
87.5°	32.6	40.2	47.8	55.5	63.1	71.0	79.1	87.2	95.2	103.3	108.8
90°	17.4	26.1	34.8	43.5	52.2	61.0	70.0	79.0	88.0	97.0	103.1
92.5°	26.4	32.3	38.2	44.1	50.0	57.5	66.5	75.6	84.6	93.7	99.6
95°	55.7	61.2	66.7	72.3	77.8	81.3	82.9	84.5	86.1	87.7	93.6
97.5°	100.4	106.7	113.0	119.3	125.6	126.3	121.5	116.7	111.9	107.1	107.3
100°	135.2	140.5	145.8	151.2	156.5	163.2	171.3	179.3	187.4	195.4	175.7
102.5°	170.5	175.6	180.7	185.8	190.9	197.3	204.9	212.4	220.0	227.6	227.7
105°	227.2	231.5	235.9	240.2	244.6	250.2	257.2	264.1	271.0	277.9	282.5
107.5°	286.1	289.2	292.4	295.5	298.7	303.7	310.7	317.7	324.7	331.6	336.2
110°	324.4	327.2	329.9	332.7	335.5	340.3	347.1	353.8	360.6	367.4	371.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	361.2	363.8	366.4	369.0	371.6	376.1	382.6	389.1	395.6	402.0	405.6
115°	415.2	417.7	420.1	422.6	425.0	429.3	435.5	441.6	447.8	454.0	457.5
117.5°	471.3	472.3	473.3	474.3	475.4	479.0	485.3	491.6	497.9	504.3	507.3
120°	506.8	507.4	507.9	508.4	508.9	512.1	517.9	523.7	529.5	535.3	538.9
122.5°	537.4	538.4	539.3	540.3	541.2	544.4	549.7	555.1	560.4	565.8	569.2
125°	585.8	586.7	587.7	588.6	589.5	592.3	596.9	601.5	606.1	610.7	613.8
127.5°	631.2	631.7	632.3	632.9	633.5	635.7	639.4	643.0	646.7	650.4	653.5
130°	659.6	660.2	660.8	661.4	662.0	664.0	667.4	670.8	674.2	677.6	680.3
132.5°	687.2	688.1	689.0	690.0	690.9	692.4	694.5	696.6	698.8	700.9	704.0
135°	727.5	728.2	729.0	729.8	730.5	731.5	732.8	734.1	735.4	736.7	739.3
137.5°	764.5	765.1	765.8	766.5	767.2	767.7	768.2	768.7	769.2	769.7	772.5
140°	787.9	788.3	788.6	788.9	789.3	789.5	789.5	789.6	789.7	789.7	792.6
142.5°	809.9	809.9	809.9	809.9	809.9	810.1	810.3	810.6	810.9	811.2	813.4
145°	842.0	842.1	842.2	842.3	842.4	842.5	842.5	842.5	842.5	842.5	843.8
147.5°	869.2	869.1	869.0	869.0	868.9	869.0	869.2	869.3	869.5	869.7	870.3
150°	886.9	886.6	886.3	885.9	885.6	885.6	885.9	886.3	886.6	886.9	887.3
152.5°	904.1	903.4	902.7	902.0	901.2	901.0	901.4	901.7	902.0	902.3	902.7
155°	926.2	925.2	924.2	923.2	922.3	921.9	922.3	922.6	922.9	923.2	923.7
157.5°	943.2	942.7	942.1	941.5	940.9	940.6	940.6	940.7	940.7	940.7	941.3
160°	955.1	954.1	953.1	952.1	951.2	950.7	950.9	951.1	951.2	951.4	952.1
162.5°	964.6	963.6	962.6	961.6	960.6	960.2	960.4	960.6	960.7	960.9	961.8
165°	977.3	976.3	975.4	974.4	973.4	973.0	973.1	973.3	973.5	973.6	974.6
167.5°	986.8	985.8	984.8	983.8	982.7	982.3	982.5	982.6	982.8	983.0	984.1
170°	992.2	991.0	989.8	988.7	987.5	987.0	987.2	987.4	987.5	987.7	989.0
172.5°	995.7	994.6	993.4	992.2	991.1	990.7	991.0	991.3	991.6	991.9	993.0
175°	999.6	998.6	997.6	996.6	995.6	995.2	995.4	995.5	995.7	995.9	997.2
177.5°	1001.3	1000.5	999.8	999.0	998.2	997.8	998.0	998.1	998.2	998.4	999.3
180°	999.6	999.6	999.6	999.6	999.6	999.6	999.6	999.6	999.6	999.6	999.6



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3
2.5°	1056.9	1058.2	1059.5	1060.1	1059.9	1059.7	1059.5	1059.3
5°	1053.7	1055.5	1057.4	1058.2	1057.9	1057.7	1057.5	1057.3
7.5°	1044.9	1046.5	1048.1	1048.8	1048.6	1048.4	1048.1	1047.9
10°	1036.6	1038.2	1039.8	1040.5	1040.3	1040.1	1039.8	1039.6
12.5°	1026.7	1028.0	1029.2	1029.5	1028.9	1028.3	1027.7	1027.1
15°	1008.1	1009.5	1010.9	1011.1	1010.2	1009.2	1008.3	1007.4
17.5°	984.4	985.5	986.5	986.8	986.2	985.7	985.1	984.6
20°	966.2	966.9	967.6	967.9	967.9	967.9	967.9	967.9
22.5°	947.5	948.3	949.2	949.4	948.8	948.3	947.7	947.2
25°	917.9	918.8	919.7	919.6	918.4	917.3	916.1	915.0
27.5°	883.4	884.1	884.7	884.9	884.4	884.0	883.6	883.2
30°	859.8	860.3	860.7	860.9	860.6	860.4	860.2	859.9
32.5°	837.4	837.8	838.3	838.4	838.2	838.0	837.7	837.5
35°	801.1	801.8	802.5	802.8	802.8	802.8	802.8	802.8
37.5°	762.9	763.8	764.7	765.2	765.1	765.0	764.9	764.8
40°	737.1	738.1	739.0	739.7	740.1	740.6	741.1	741.5
42.5°	713.4	714.5	715.6	716.2	716.3	716.4	716.5	716.6
45°	675.2	676.8	678.4	679.3	679.6	679.8	680.0	680.3
47.5°	635.7	638.1	640.4	641.9	642.4	642.9	643.4	643.9
50°	609.5	612.1	614.6	616.2	616.9	617.6	618.3	619.0
52.5°	583.3	586.0	588.7	590.4	590.9	591.4	591.9	592.4
55°	542.0	544.6	547.1	548.8	549.7	550.7	551.6	552.5
57.5°	501.2	504.1	507.0	508.8	509.5	510.2	510.9	511.6
60°	473.2	476.7	480.2	482.2	482.9	483.6	484.3	485.0
62.5°	444.9	448.7	452.6	454.9	455.8	456.7	457.5	458.4
65°	402.6	406.1	409.5	411.7	412.7	413.6	414.5	415.4
67.5°	359.2	363.4	367.6	370.3	371.5	372.7	373.9	375.1
70°	329.7	334.1	338.5	341.3	342.7	344.1	345.5	346.9
72.5°	302.2	306.9	311.7	314.6	315.6	316.6	317.6	318.6
75°	260.6	265.2	269.8	272.7	273.8	275.0	276.1	277.3
77.5°	218.9	224.0	229.1	232.1	233.0	233.9	234.8	235.8
80°	194.0	199.1	204.1	207.1	208.1	209.0	209.9	210.8
82.5°	170.3	175.2	180.1	183.4	185.1	186.7	188.4	190.1
85°	137.9	143.0	148.1	151.5	153.4	155.2	157.1	158.9
87.5°	114.3	119.7	125.2	128.8	130.5	132.2	133.9	135.7
90°	109.3	115.4	121.5	125.7	127.8	129.9	132.0	134.1
92.5°	105.6	111.5	117.5	121.4	123.2	125.1	126.9	128.8
95°	99.5	105.4	111.3	115.0	116.6	118.3	119.9	121.5
97.5°	107.5	107.7	107.9	108.8	110.3	111.9	113.5	115.1
100°	156.0	136.3	116.6	107.2	107.9	108.6	109.3	110.1
102.5°	227.7	227.7	227.7	222.8	213.0	203.2	193.4	183.6
105°	287.2	291.8	296.4	299.4	300.9	302.3	303.8	305.2
107.5°	340.8	345.4	350.0	352.8	353.7	354.7	355.6	356.6
110°	375.2	379.1	383.0	385.8	387.6	389.4	391.2	392.9



TEST NUMBER: P333408

CATALOG NUMBER: S125DIW-S850D770U835-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	409.2	412.8	416.3	418.8	420.2	421.6	423.0	424.4
115°	461.0	464.4	467.9	469.9	470.3	470.7	471.1	471.5
117.5°	510.4	513.5	516.5	518.6	519.8	520.9	522.0	523.2
120°	542.5	546.1	549.7	551.8	552.3	552.9	553.4	554.0
122.5°	572.6	576.0	579.4	581.3	581.8	582.2	582.6	583.1
125°	616.8	619.8	622.9	624.7	625.4	626.0	626.7	627.4
127.5°	656.5	659.6	662.6	664.2	664.3	664.5	664.6	664.7
130°	683.0	685.8	688.5	690.0	690.4	690.7	691.0	691.4
132.5°	707.2	710.3	713.4	715.1	715.2	715.4	715.5	715.7
135°	742.0	744.7	747.4	748.8	748.9	749.1	749.3	749.4
137.5°	775.3	778.1	780.8	782.3	782.3	782.4	782.5	782.5
140°	795.5	798.3	801.2	802.6	802.5	802.5	802.4	802.3
142.5°	815.6	817.9	820.1	821.2	821.1	821.1	821.0	820.9
145°	845.1	846.4	847.8	848.4	848.3	848.2	848.2	848.1
147.5°	870.9	871.4	872.0	871.9	871.1	870.4	869.6	868.8
150°	887.6	887.9	888.3	887.9	886.8	885.7	884.6	883.5
152.5°	903.0	903.3	903.7	903.3	902.1	901.0	899.8	898.7
155°	924.2	924.7	925.2	924.8	923.5	922.2	920.9	919.5
157.5°	941.8	942.3	942.8	942.4	941.1	939.8	938.5	937.2
160°	952.7	953.4	954.0	953.7	952.4	951.1	949.8	948.4
162.5°	962.7	963.6	964.6	964.3	962.9	961.4	960.0	958.5
165°	975.6	976.6	977.6	977.4	976.1	974.8	973.5	972.1
167.5°	985.3	986.5	987.7	987.6	986.1	984.6	983.1	981.6
170°	990.3	991.7	993.0	992.9	991.4	989.9	988.4	987.0
172.5°	994.2	995.4	996.6	996.4	995.0	993.5	992.0	990.5
175°	998.5	999.8	1001.1	1001.0	999.6	998.1	996.6	995.1
177.5°	1000.2	1001.1	1002.1	1002.0	1000.9	999.9	998.8	997.8
180°	999.6	999.6	999.6	999.6	999.6	999.6	999.6	999.6

(END OF REPORT)