

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: P333402

Luminaire Tested: **S125DIW-S850D470U835-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333402
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-S850D470U835-4F0-1E-UDD-D
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 470 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5156.4 lumens
Efficiency: N/A
Efficacy: 136.8 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

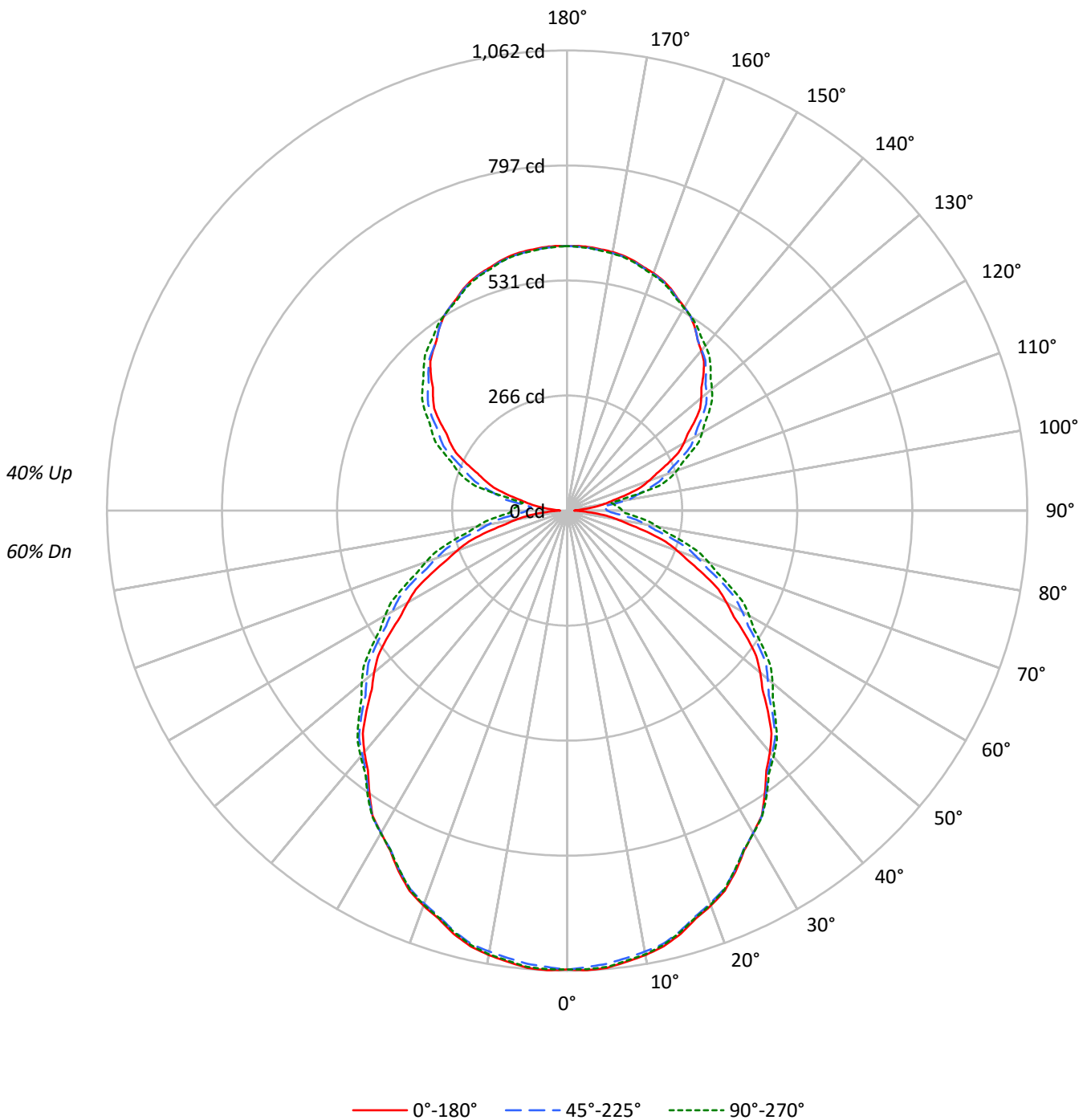
Input Watts (W): 37.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333402

CATALOG NUMBER: S125DIW-S850D470U835-4F0-1E-UDD-D

Luminous Intensity Polar Plot





TEST NUMBER: P333402

CATALOG NUMBER: S125DIW-S850D470U835-4F0-1E-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	109	109	109	109	102	102	102	102	89	89	89	76	76	76	65	65	65	60
1	99	94	90	86	92	88	84	81	77	74	71	66	64	62	56	55	53	49
2	90	82	75	70	84	77	71	66	67	62	58	57	54	51	49	46	44	40
3	82	72	64	58	76	67	60	55	58	53	49	50	46	43	43	40	37	33
4	75	63	55	49	69	59	52	46	52	46	41	45	40	36	38	35	32	28
5	69	56	48	42	64	53	45	39	46	40	35	40	35	31	34	31	28	25
6	63	51	42	36	59	47	40	34	42	35	31	36	31	27	31	27	24	21
7	58	46	37	32	54	43	35	30	38	32	27	33	28	24	28	24	21	19
8	54	41	33	28	50	39	32	27	34	28	24	30	25	22	26	22	19	17
9	50	38	30	25	47	36	29	24	32	26	22	28	23	19	24	20	17	15
10	47	35	27	22	44	33	26	21	29	23	19	26	21	18	22	19	16	14

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



TEST NUMBER: P333402

CATALOG NUMBER: S125DIW-S850D470U835-4F0-1E-UDD-D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.2	1.9
10°-20°	284.4	5.5
20°-30°	422.9	8.2
30°-40°	500.9	9.7
40°-50°	517.9	10.0
50°-60°	477.1	9.3
60°-70°	385.7	7.5
70°-80°	258.3	5.0
80°-90°	135.2	2.6
90°-100°	97.3	1.9
100°-110°	192.1	3.7
110°-120°	285.0	5.5
120°-130°	339.2	6.6
130°-140°	351.4	6.8
140°-150°	323.1	6.3
150°-160°	259.8	5.0
160°-170°	168.0	3.3
170°-180°	58.0	1.1
0°-30°	807.4	15.7
0°-40°	1308.3	25.4
0°-60°	2303.3	44.7
0°-90°	3082.5	59.8
90°-120°	574.5	11.1
90°-150°	1588.1	30.8
90°-180°	2074.0	40.2
0°-180°	5156.4	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	54	92	118	127	12
95°	39	64	83	107	115	43
105°	142	161	192	212	220	151
115°	256	266	293	309	313	254
125°	359	362	382	396	401	321
135°	445	447	453	465	468	343
145°	514	514	514	520	522	321
155°	566	563	564	565	561	260
165°	597	594	594	597	594	168
175°	610	608	608	611	608	58
180°	610	610	610	610	610	



TEST NUMBER: P333402

CATALOG NUMBER: S125DIW-S850D470U835-4F0-1E-UDD-D

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°	32.5	40.0	47.6	55.1	62.7	70.4	78.4	86.4	94.4	102.4	107.8
90°	17.1	25.3	33.4	41.6	49.8	58.2	66.7	75.3	83.8	92.4	98.2
92.5°	21.9	28.2	34.5	40.7	47.0	54.5	63.1	71.8	80.4	89.1	94.7
95°	39.3	45.0	50.7	56.4	62.1	66.9	71.0	75.0	79.0	83.1	88.6
97.5°	66.1	72.0	78.0	83.9	89.9	92.8	92.9	92.9	92.9	92.9	94.9
100°	87.0	92.1	97.3	102.4	107.6	114.0	121.8	129.6	137.4	145.2	135.1
102.5°	108.2	113.1	117.9	122.8	127.7	133.8	141.3	148.7	156.1	163.6	165.4
105°	142.4	146.4	150.5	154.6	158.7	164.2	171.2	178.1	185.0	191.9	196.6
107.5°	177.8	181.0	184.1	187.3	190.4	195.4	202.2	209.1	215.9	222.8	227.4
110°	200.9	203.7	206.4	209.2	212.0	216.7	223.4	230.0	236.7	243.3	247.4



TEST NUMBER: P333402

CATALOG NUMBER: S125DIW-S850D470U835-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	223.3	225.8	228.2	230.7	233.2	237.6	244.0	250.4	256.8	263.2	267.0
115°	256.0	258.1	260.2	262.3	264.4	268.5	274.6	280.7	286.8	292.9	296.7
117.5°	289.7	290.8	291.8	292.9	293.9	297.5	303.5	309.6	315.6	321.7	325.1
120°	311.5	312.1	312.6	313.2	313.8	316.9	322.5	328.2	333.8	339.4	343.1
122.5°	329.8	330.5	331.2	331.9	332.6	335.6	340.9	346.1	351.4	356.7	360.2
125°	359.3	359.8	360.2	360.7	361.2	363.7	368.3	373.0	377.6	382.2	385.5
127.5°	386.6	386.8	387.1	387.4	387.7	389.7	393.4	397.1	400.8	404.5	407.7
130°	403.9	404.2	404.5	404.8	405.0	406.8	410.2	413.5	416.8	420.2	423.1
132.5°	420.5	421.0	421.6	422.1	422.6	424.0	426.3	428.6	430.8	433.1	436.3
135°	445.0	445.3	445.7	446.1	446.5	447.4	448.8	450.2	451.6	453.0	455.8
137.5°	467.5	467.8	468.1	468.5	468.8	469.3	469.9	470.5	471.1	471.7	474.5
140°	481.5	481.7	481.9	482.1	482.3	482.5	482.6	482.7	482.8	483.0	485.7
142.5°	494.9	494.8	494.7	494.7	494.6	494.7	494.9	495.1	495.2	495.4	497.6
145°	514.5	514.5	514.4	514.4	514.4	514.4	514.4	514.4	514.4	514.4	515.6
147.5°	530.7	530.6	530.6	530.5	530.5	530.5	530.7	530.8	530.9	531.0	531.5
150°	541.5	541.3	541.1	540.9	540.7	540.7	540.9	541.1	541.3	541.5	541.7
152.5°	552.0	551.6	551.1	550.7	550.2	550.1	550.3	550.5	550.7	550.9	551.1
155°	565.5	564.9	564.3	563.7	563.1	562.9	563.1	563.3	563.5	563.7	564.0
157.5°	575.9	575.5	575.2	574.8	574.4	574.3	574.3	574.3	574.3	574.4	574.7
160°	583.1	582.5	581.9	581.3	580.7	580.5	580.6	580.7	580.8	580.9	581.3
162.5°	588.9	588.3	587.7	587.1	586.5	586.3	586.4	586.5	586.6	586.7	587.2
165°	596.7	596.1	595.5	594.9	594.3	594.0	594.1	594.2	594.3	594.4	595.0
167.5°	602.5	601.9	601.3	600.6	600.0	599.7	599.8	599.9	600.0	600.1	600.9
170°	605.8	605.1	604.3	603.6	602.9	602.6	602.7	602.8	602.9	603.0	603.8
172.5°	607.9	607.2	606.5	605.8	605.1	604.9	605.0	605.2	605.4	605.6	606.3
175°	610.3	609.7	609.1	608.5	607.9	607.6	607.7	607.8	607.9	608.0	608.8
177.5°	611.4	610.9	610.4	609.9	609.4	609.2	609.3	609.4	609.5	609.6	610.1
180°	610.3	610.3	610.3	610.3	610.3	610.3	610.3	610.3	610.3	610.3	610.3



TEST NUMBER: P333402

CATALOG NUMBER: S125DIW-S850D470U835-4F0-1E-UDD-D

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°	113.2	118.6	124.0	127.6	129.2	130.9	132.6	134.3
90°	104.0	109.8	115.6	119.5	121.4	123.3	125.3	127.2
92.5°	100.3	106.0	111.6	115.3	117.0	118.8	120.5	122.3
95°	94.2	99.8	105.4	109.0	110.6	112.2	113.8	115.4
97.5°	96.9	98.9	100.9	102.7	104.3	105.9	107.4	109.0
100°	124.9	114.8	104.7	100.1	101.1	102.0	103.0	104.0
102.5°	167.2	169.1	170.9	169.1	163.6	158.2	152.7	147.3
105°	201.2	205.8	210.4	213.5	215.0	216.5	218.0	219.5
107.5°	232.0	236.5	241.1	244.0	245.1	246.3	247.4	248.5
110°	251.5	255.6	259.7	262.6	264.3	266.0	267.7	269.4



TEST NUMBER: P333402

CATALOG NUMBER: S125DIW-S850D470U835-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	270.8	274.6	278.5	281.1	282.6	284.1	285.5	287.0
115°	300.4	304.2	307.9	310.2	311.0	311.8	312.6	313.3
117.5°	328.5	331.9	335.3	337.7	339.0	340.3	341.6	342.9
120°	346.8	350.5	354.3	356.6	357.4	358.3	359.2	360.1
122.5°	363.8	367.3	370.8	373.0	373.8	374.6	375.4	376.2
125°	388.8	392.1	395.3	397.4	398.3	399.1	400.0	400.8
127.5°	410.9	414.1	417.3	419.2	419.8	420.4	421.0	421.6
130°	426.0	428.9	431.9	433.7	434.3	435.0	435.6	436.3
132.5°	439.5	442.6	445.8	447.6	448.1	448.6	449.0	449.5
135°	458.6	461.4	464.2	465.9	466.4	467.0	467.5	468.1
137.5°	477.2	480.0	482.8	484.3	484.7	485.1	485.5	485.9
140°	488.5	491.2	493.9	495.5	495.8	496.1	496.4	496.7
142.5°	499.8	502.1	504.3	505.5	505.8	506.2	506.5	506.8
145°	516.9	518.1	519.4	520.2	520.5	520.8	521.1	521.5
147.5°	532.0	532.5	533.0	533.1	532.8	532.5	532.1	531.8
150°	541.9	542.1	542.3	542.1	541.6	541.0	540.4	539.8
152.5°	551.3	551.5	551.7	551.5	550.8	550.1	549.5	548.8
155°	564.3	564.6	564.9	564.6	563.8	563.0	562.2	561.4
157.5°	575.0	575.3	575.6	575.4	574.6	573.8	573.0	572.2
160°	581.7	582.1	582.5	582.3	581.5	580.7	579.9	579.1
162.5°	587.8	588.4	588.9	588.8	587.9	587.0	586.1	585.2
165°	595.7	596.3	596.9	596.8	596.0	595.1	594.3	593.5
167.5°	601.6	602.3	603.0	603.0	602.0	601.1	600.2	599.3
170°	604.6	605.5	606.3	606.2	605.3	604.4	603.5	602.6
172.5°	607.0	607.7	608.5	608.4	607.5	606.6	605.7	604.8
175°	609.6	610.4	611.2	611.2	610.3	609.4	608.5	607.6
177.5°	610.7	611.2	611.8	611.8	611.1	610.5	609.8	609.2
180°	610.3	610.3	610.3	610.3	610.3	610.3	610.3	610.3

(END OF REPORT)