

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: P333403-927

Luminaire Tested: **S125DIW-S850D470U927-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333403-927
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-S850D470U927-4F0-1E-UDD-D1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 470 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3887.7 lumens
Efficiency: N/A
Efficacy: 103.1 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: Semi-Direct

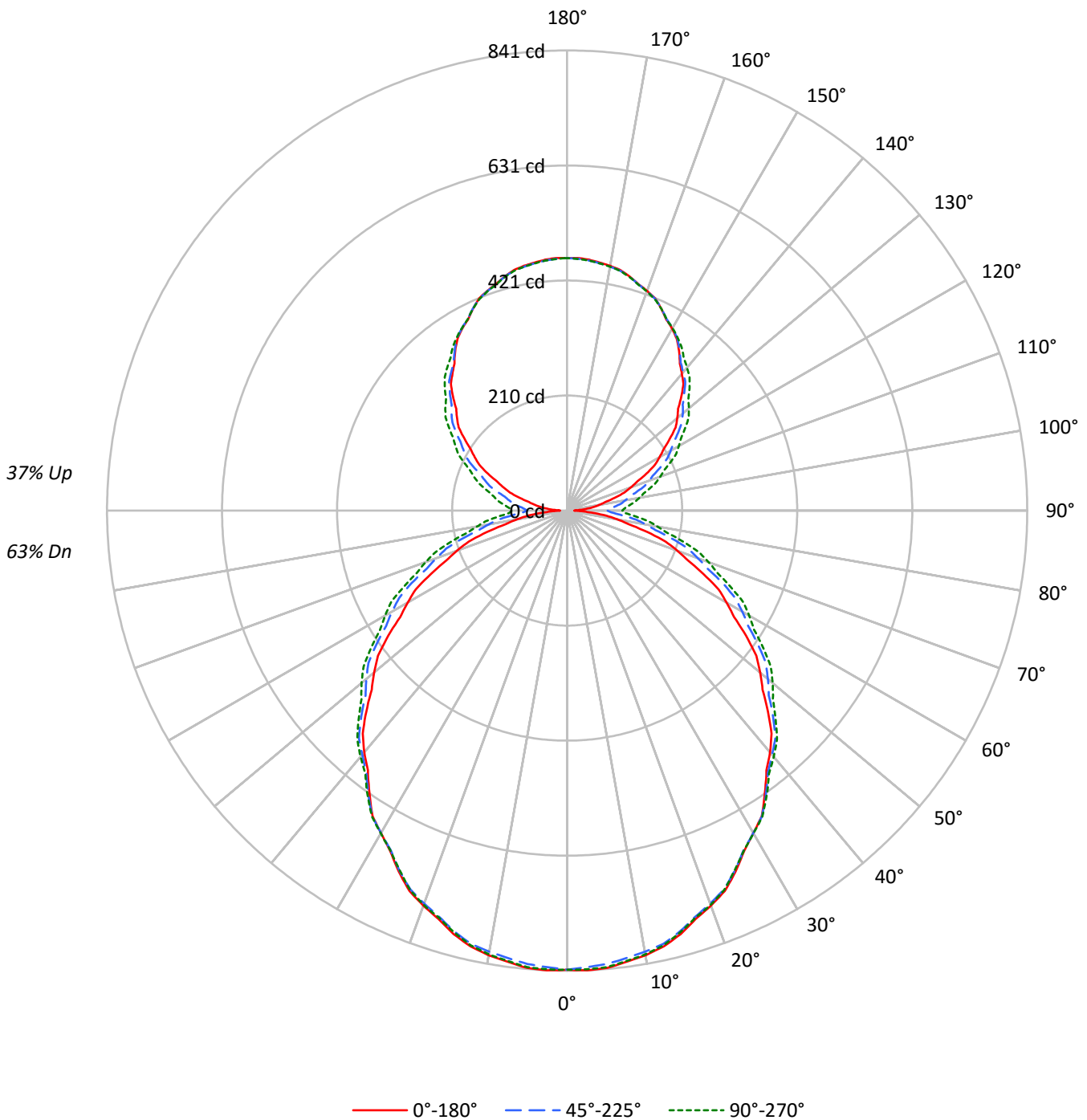
Input Watts (W): 37.7
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333403-927

CATALOG NUMBER: S125DIW-S850D470U927-4F0-1E-UDD-D1

Luminous Intensity Polar Plot





TEST NUMBER: P333403-927

CATALOG NUMBER: S125DIW-S850D470U927-4F0-1E-UDD-D1

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	110	110	110	110	103	103	103	103	90	90	90	79	79	79	68	68	68	63
1	100	95	91	87	93	89	85	82	78	75	72	68	66	64	59	57	55	51
2	90	82	76	70	84	77	71	66	68	63	59	59	56	53	51	48	46	42
3	82	72	64	58	77	68	61	55	60	54	49	52	48	44	45	42	39	35
4	75	64	55	49	70	60	52	47	53	47	42	46	41	38	40	36	33	30
5	69	57	48	42	64	53	46	40	47	41	36	41	36	32	36	32	29	26
6	64	51	42	36	59	48	40	35	42	36	31	37	32	28	33	28	25	23
7	59	46	38	32	55	43	36	30	39	32	28	34	29	25	30	26	22	20
8	55	42	34	28	51	39	32	27	35	29	25	31	26	22	27	23	20	18
9	51	38	30	25	48	36	29	24	32	26	22	29	24	20	25	21	18	16
10	48	35	28	23	45	33	26	22	30	24	20	26	22	18	23	19	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5420	5420	5420
5°	5431	5320	5337
10°	5392	5225	5217
15°	5329	5111	5064
20°	5241	4970	4912
25°	5139	4820	4724
30°	5014	4654	4554
35°	4897	4502	4398
40°	4778	4342	4241
45°	4644	4205	4102
50°	4517	4056	3979
55°	4363	3916	3833
60°	4195	3756	3686
65°	4020	3589	3520
70°	3820	3359	3349
75°	3505	3139	3139
80°	3093	2872	2910
85°	2705	2693	2839



TEST NUMBER: P333403-927

CATALOG NUMBER: S125DIW-S850D470U927-4F0-1E-UDD-D1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.4	2.0
10°-20°	225.3	5.8
20°-30°	335.0	8.6
30°-40°	396.8	10.2
40°-50°	410.3	10.6
50°-60°	377.9	9.7
60°-70°	305.5	7.9
70°-80°	204.6	5.3
80°-90°	107.1	2.8
90°-100°	90.4	2.3
100°-110°	135.1	3.5
110°-120°	184.0	4.7
120°-130°	220.1	5.7
130°-140°	235.2	6.1
140°-150°	224.9	5.8
150°-160°	187.6	4.8
160°-170°	124.7	3.2
170°-180°	43.6	1.1
0°-30°	639.6	16.5
0°-40°	1036.4	26.7
0°-60°	1824.7	46.9
0°-90°	2441.9	62.8
90°-120°	409.6	10.5
90°-150°	1089.8	28.0
90°-180°	1446.0	37.2
0°-180°	3887.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	839	839	839	839	839	
5°	839	837	832	838	838	80
15°	801	802	796	801	798	226
25°	728	730	726	729	725	335
35°	630	636	634	636	636	394
45°	519	528	532	538	539	400
55°	399	412	425	434	438	357
65°	275	294	314	325	329	273
75°	151	173	199	215	220	161
85°	45	72	101	119	126	48
90°	14	43	73	93	101	10
95°	34	57	88	108	115	33
105°	89	105	131	149	156	95
115°	160	168	189	203	208	158
125°	229	231	247	259	264	205
135°	295	297	303	313	316	228
145°	357	357	358	362	365	223
155°	407	407	408	409	407	187
165°	443	442	442	444	442	125
175°	460	459	459	461	458	44
180°	461	461	461	461	461	



TEST NUMBER: P333403-927

CATALOG NUMBER: S125DIW-S850D470U927-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	839.2	839.2	839.2	839.2	839.2	839.2	839.2	839.2	839.2	839.2	839.2
2.5°	841.1	840.9	840.6	840.3	840.0	839.3	838.3	837.3	836.2	835.2	836.2
5°	839.2	838.8	838.4	838.0	837.7	836.9	835.6	834.3	833.1	831.8	833.2
7.5°	831.8	831.6	831.5	831.3	831.2	830.4	829.2	827.8	826.5	825.2	826.5
10°	825.2	825.2	825.2	825.2	825.2	824.5	823.0	821.6	820.1	818.6	819.9
12.5°	815.9	816.1	816.3	816.4	816.6	816.0	814.9	813.7	812.5	811.4	812.4
15°	801.4	801.5	801.7	801.8	802.1	801.5	800.3	799.0	797.6	796.4	797.5
17.5°	782.3	782.6	783.0	783.3	783.7	783.2	782.0	780.7	779.4	778.2	779.0
20°	768.4	768.8	769.1	769.5	769.9	769.4	768.2	766.9	765.6	764.3	764.9
22.5°	752.7	753.3	753.9	754.6	755.3	754.9	753.4	752.0	750.6	749.2	749.9
25°	728.1	728.6	729.2	729.8	730.3	730.0	729.0	727.9	726.7	725.6	726.4
27.5°	700.8	701.6	702.4	703.2	704.0	703.8	702.6	701.3	700.1	698.9	699.3
30°	680.4	681.5	682.6	683.7	684.8	684.8	683.7	682.6	681.5	680.4	680.8
32.5°	661.9	662.9	663.8	664.8	665.7	665.8	665.0	664.2	663.5	662.7	663.0
35°	630.2	631.5	632.8	634.1	635.3	635.7	635.2	634.6	634.1	633.5	634.1
37.5°	598.4	599.6	600.8	602.0	603.2	603.6	603.4	603.2	603.1	602.9	603.6
40°	576.7	578.2	579.6	581.1	582.6	583.2	583.0	582.9	582.7	582.5	583.2
42.5°	553.0	554.9	556.8	558.7	560.6	561.8	562.2	562.6	563.0	563.4	564.3
45°	519.1	521.2	523.2	525.1	527.2	528.6	529.6	530.4	531.4	532.3	533.6
47.5°	484.4	486.3	488.1	490.0	491.9	493.6	495.2	496.8	498.3	499.9	501.8
50°	460.7	462.7	464.8	466.8	468.7	470.8	472.8	474.8	476.8	478.8	480.9
52.5°	435.7	438.2	440.6	443.1	445.5	448.0	450.4	452.9	455.3	457.8	459.9
55°	399.0	402.0	404.9	407.8	410.7	413.7	416.6	419.5	422.4	425.3	427.4
57.5°	361.5	365.0	368.5	372.0	375.6	379.0	382.4	385.7	389.0	392.4	394.7
60°	336.5	340.2	343.8	347.5	351.1	354.8	358.5	362.1	365.8	369.4	372.2
62.5°	312.1	315.8	319.5	323.1	326.8	330.6	334.5	338.5	342.4	346.3	349.4
65°	274.8	279.0	283.2	287.4	291.6	295.9	300.3	304.7	309.1	313.5	316.2
67.5°	239.6	243.7	247.7	251.8	255.8	260.1	264.5	269.0	273.5	277.9	281.2
70°	213.9	218.1	222.3	226.6	230.8	235.2	240.0	244.7	249.5	254.2	257.7
72.5°	188.9	193.2	197.6	201.9	206.3	211.0	216.3	221.5	226.6	231.9	235.6
75°	151.4	156.1	160.9	165.6	170.4	175.7	181.6	187.4	193.2	199.1	202.7
77.5°	115.3	120.8	126.4	131.8	137.3	142.8	148.5	154.1	159.7	165.4	169.4
80°	93.0	98.5	103.9	109.4	114.9	120.7	127.0	133.2	139.4	145.6	149.6
82.5°	72.6	78.3	84.1	89.9	95.7	101.7	108.1	114.5	120.8	127.2	131.1
85°	45.2	51.3	57.4	63.4	69.4	75.6	82.0	88.4	94.8	101.2	105.2
87.5°	25.7	31.7	37.7	43.6	49.7	55.8	62.1	68.4	74.8	81.1	85.4
90°	13.5	20.0	26.5	33.0	39.5	46.1	52.9	59.7	66.5	73.2	77.8
92.5°	20.5	26.4	32.2	38.1	44.0	50.5	57.4	64.5	71.5	78.6	83.2
95°	34.1	39.0	43.9	48.8	53.7	59.7	66.7	73.7	80.7	87.7	92.3
97.5°	48.5	52.8	57.2	61.5	65.8	71.5	78.7	85.8	92.8	100.0	104.3
100°	59.3	63.1	67.0	70.8	74.7	80.0	86.9	93.8	100.7	107.6	112.2
102.5°	71.0	74.9	78.7	82.6	86.5	91.5	97.8	104.0	110.2	116.5	120.9
105°	89.3	92.6	95.9	99.3	102.6	107.2	113.2	119.1	125.1	131.0	135.2
107.5°	109.6	112.4	115.3	118.2	121.0	125.3	130.9	136.6	142.2	147.9	151.7
110°	123.5	126.1	128.7	131.3	133.9	137.8	143.2	148.6	153.9	159.3	163.0



TEST NUMBER: P333403-927

CATALOG NUMBER: S125DIW-S850D470U927-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	138.5	140.5	142.4	144.3	146.3	150.0	155.2	160.5	165.7	171.0	174.4
115°	159.7	161.3	162.9	164.5	166.1	169.4	174.3	179.2	184.1	189.0	192.2
117.5°	181.0	182.0	182.9	183.9	184.9	187.7	192.3	197.0	201.7	206.3	209.5
120°	194.8	195.7	196.7	197.6	198.5	201.1	205.5	209.8	214.0	218.3	221.4
122.5°	209.1	209.5	209.8	210.2	210.6	212.9	217.2	221.5	225.8	230.0	232.9
125°	229.1	229.4	229.7	230.0	230.3	232.3	236.1	239.8	243.5	247.2	250.0
127.5°	249.9	249.9	250.0	250.1	250.2	251.8	254.9	258.0	261.1	264.2	266.8
130°	262.8	263.0	263.2	263.4	263.6	265.1	267.8	270.5	273.3	276.0	278.5
132.5°	275.0	275.7	276.3	276.9	277.5	278.8	280.7	282.7	284.6	286.5	289.1
135°	295.3	295.6	296.0	296.2	296.5	297.4	298.7	300.1	301.4	302.8	305.1
137.5°	314.4	314.7	315.1	315.4	315.7	316.2	317.0	317.8	318.6	319.4	321.7
140°	326.1	326.5	326.9	327.3	327.7	328.1	328.5	329.0	329.4	329.8	332.0
142.5°	338.5	338.7	338.8	339.1	339.2	339.5	339.8	340.2	340.5	340.9	342.7
145°	356.6	356.8	356.9	357.0	357.2	357.4	357.6	357.8	358.1	358.3	359.3
147.5°	372.6	372.8	373.0	373.1	373.4	373.5	373.7	373.9	374.1	374.3	374.8
150°	383.8	383.7	383.7	383.6	383.5	383.7	384.0	384.3	384.6	384.9	384.9
152.5°	393.0	393.2	393.2	393.3	393.5	393.6	393.7	393.9	394.0	394.1	394.3
155°	407.2	407.2	407.2	407.2	407.2	407.2	407.3	407.3	407.4	407.5	407.8
157.5°	419.8	419.6	419.5	419.3	419.1	419.1	419.1	419.2	419.3	419.4	419.7
160°	427.3	427.1	426.7	426.5	426.3	426.2	426.3	426.4	426.4	426.5	426.9
162.5°	433.9	433.7	433.6	433.3	433.2	433.1	433.1	433.1	433.2	433.2	433.6
165°	442.7	442.5	442.4	442.2	442.0	442.0	442.1	442.2	442.3	442.4	442.7
167.5°	450.2	449.9	449.6	449.2	448.9	448.8	448.8	448.8	448.8	448.8	449.2
170°	454.2	453.8	453.5	453.2	452.9	452.7	452.7	452.7	452.7	452.7	453.2
172.5°	457.1	456.8	456.5	456.1	455.8	455.7	455.7	455.7	455.7	455.7	456.1
175°	460.3	459.9	459.6	459.3	459.0	458.8	458.8	458.8	458.8	458.8	459.3
177.5°	461.9	461.7	461.4	461.2	460.9	460.7	460.7	460.7	460.6	460.5	460.9
180°	461.4	461.4	461.4	461.4	461.4	461.4	461.4	461.4	461.4	461.4	461.4



TEST NUMBER: P333403-927

CATALOG NUMBER: S125DIW-S850D470U927-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	839.2	839.2	839.2	839.2	839.2	839.2	839.2	839.2
2.5°	837.3	838.3	839.3	839.8	839.6	839.5	839.3	839.2
5°	834.7	836.1	837.7	838.3	838.0	837.9	837.7	837.6
7.5°	827.8	829.0	830.3	830.8	830.7	830.5	830.3	830.1
10°	821.2	822.4	823.7	824.3	824.1	823.9	823.7	823.6
12.5°	813.3	814.4	815.3	815.6	815.1	814.6	814.1	813.7
15°	798.6	799.7	800.8	801.0	800.3	799.5	798.8	798.0
17.5°	779.8	780.7	781.5	781.7	781.3	780.9	780.4	780.0
20°	765.4	766.0	766.5	766.8	766.8	766.8	766.8	766.8
22.5°	750.6	751.2	751.9	752.1	751.6	751.2	750.8	750.4
25°	727.1	727.9	728.6	728.5	727.5	726.7	725.7	724.8
27.5°	699.8	700.4	700.8	701.0	700.6	700.3	700.0	699.7
30°	681.1	681.5	681.8	682.0	681.8	681.6	681.4	681.2
32.5°	663.4	663.7	664.1	664.2	664.0	663.8	663.6	663.5
35°	634.6	635.2	635.7	636.0	636.0	636.0	636.0	636.0
37.5°	604.4	605.1	605.8	606.2	606.1	606.0	605.9	605.9
40°	583.9	584.7	585.4	586.0	586.3	586.7	587.1	587.4
42.5°	565.1	566.0	566.9	567.4	567.4	567.5	567.6	567.7
45°	534.9	536.1	537.4	538.1	538.4	538.5	538.7	538.9
47.5°	503.6	505.5	507.3	508.5	508.9	509.3	509.7	510.1
50°	482.8	484.9	486.9	488.1	488.7	489.3	489.8	490.4
52.5°	462.1	464.2	466.4	467.7	468.1	468.5	468.9	469.3
55°	429.4	431.4	433.4	434.7	435.5	436.3	437.0	437.7
57.5°	397.0	399.3	401.6	403.1	403.6	404.2	404.7	405.3
60°	374.9	377.6	380.4	382.0	382.5	383.1	383.7	384.2
62.5°	352.4	355.5	358.5	360.4	361.1	361.8	362.4	363.1
65°	318.9	321.7	324.4	326.1	326.9	327.6	328.4	329.1
67.5°	284.6	287.9	291.2	293.3	294.3	295.2	296.2	297.1
70°	261.2	264.7	268.2	270.4	271.5	272.6	273.7	274.8
72.5°	239.4	243.1	246.9	249.2	250.0	250.8	251.6	252.4
75°	206.4	210.1	213.7	216.0	216.9	217.9	218.7	219.7
77.5°	173.4	177.4	181.5	183.9	184.6	185.3	186.0	186.8
80°	153.7	157.7	161.7	164.1	164.9	165.6	166.3	167.0
82.5°	134.9	138.8	142.7	145.3	146.6	147.9	149.2	150.6
85°	109.2	113.3	117.3	120.0	121.5	122.9	124.5	125.9
87.5°	89.7	94.0	98.2	101.1	102.4	103.7	105.0	106.4
90°	82.4	87.0	91.7	94.7	96.2	97.8	99.3	100.8
92.5°	87.8	92.4	97.0	100.0	101.4	102.9	104.3	105.8
95°	96.9	101.5	106.0	109.0	110.5	111.9	113.4	114.8
97.5°	108.7	113.0	117.4	120.3	121.6	122.9	124.3	125.6
100°	116.7	121.3	125.8	128.7	130.0	131.3	132.5	133.7
102.5°	125.4	129.8	134.4	137.2	138.6	139.9	141.2	142.5
105°	139.3	143.5	147.6	150.4	151.9	153.4	155.0	156.5
107.5°	155.6	159.5	163.3	165.8	166.9	168.0	169.1	170.2
110°	166.8	170.5	174.1	176.7	177.8	179.0	180.2	181.4



TEST NUMBER: P333403-927

CATALOG NUMBER: S125DIW-S850D470U927-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	177.9	181.3	184.8	187.1	188.2	189.3	190.5	191.6
115°	195.4	198.6	201.8	204.0	204.9	206.0	207.0	208.0
117.5°	212.6	215.8	219.0	221.0	222.0	222.9	223.8	224.7
120°	224.5	227.7	230.8	232.7	233.5	234.2	235.0	235.8
122.5°	235.8	238.8	241.6	243.5	244.3	245.2	246.1	246.8
125°	252.8	255.6	258.3	260.2	260.9	261.8	262.6	263.5
127.5°	269.4	272.0	274.6	276.5	277.3	278.2	279.2	280.0
130°	280.9	283.4	285.9	287.6	288.3	289.1	289.8	290.6
132.5°	291.5	294.0	296.5	298.0	298.6	299.0	299.6	300.2
135°	307.5	309.9	312.3	313.8	314.4	315.0	315.6	316.2
137.5°	323.9	326.2	328.4	329.7	330.1	330.4	330.7	331.1
140°	334.1	336.4	338.5	339.8	340.1	340.4	340.7	341.1
142.5°	344.4	346.3	348.1	349.2	349.5	349.8	350.1	350.5
145°	360.1	361.1	361.9	362.7	363.2	363.7	364.2	364.6
147.5°	375.3	375.7	376.2	376.4	376.1	375.9	375.7	375.5
150°	384.9	384.9	384.9	384.9	384.9	384.9	385.0	385.0
152.5°	394.5	394.7	394.8	394.8	394.6	394.3	394.1	393.8
155°	408.1	408.4	408.8	408.8	408.4	408.0	407.6	407.2
157.5°	420.0	420.3	420.6	420.6	420.0	419.5	419.0	418.4
160°	427.2	427.5	427.9	427.8	427.4	427.0	426.6	426.2
162.5°	434.0	434.3	434.7	434.7	434.2	433.7	433.2	432.8
165°	443.0	443.3	443.6	443.5	443.1	442.6	442.1	441.6
167.5°	449.7	450.2	450.7	450.7	450.1	449.6	449.2	448.7
170°	453.7	454.2	454.7	454.6	454.1	453.5	453.0	452.4
172.5°	456.6	457.1	457.6	457.6	457.0	456.5	456.1	455.6
175°	459.8	460.3	460.8	460.7	460.2	459.6	459.1	458.5
177.5°	461.3	461.7	462.1	462.0	461.6	461.1	460.7	460.3
180°	461.4	461.4	461.4	461.4	461.4	461.4	461.4	461.4

(END OF REPORT)