

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: P332760-927

Luminaire Tested: **S124DIW-S575D1050U927-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332760-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-10,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DIW-S575D1050U927-4F0-1E-UDD-D1
Description: DEFINE 4 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, DROP 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: 4758.5 lumens
Efficiency: N/A
Efficacy: 105.3 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')
CIE Type: Semi-Indirect

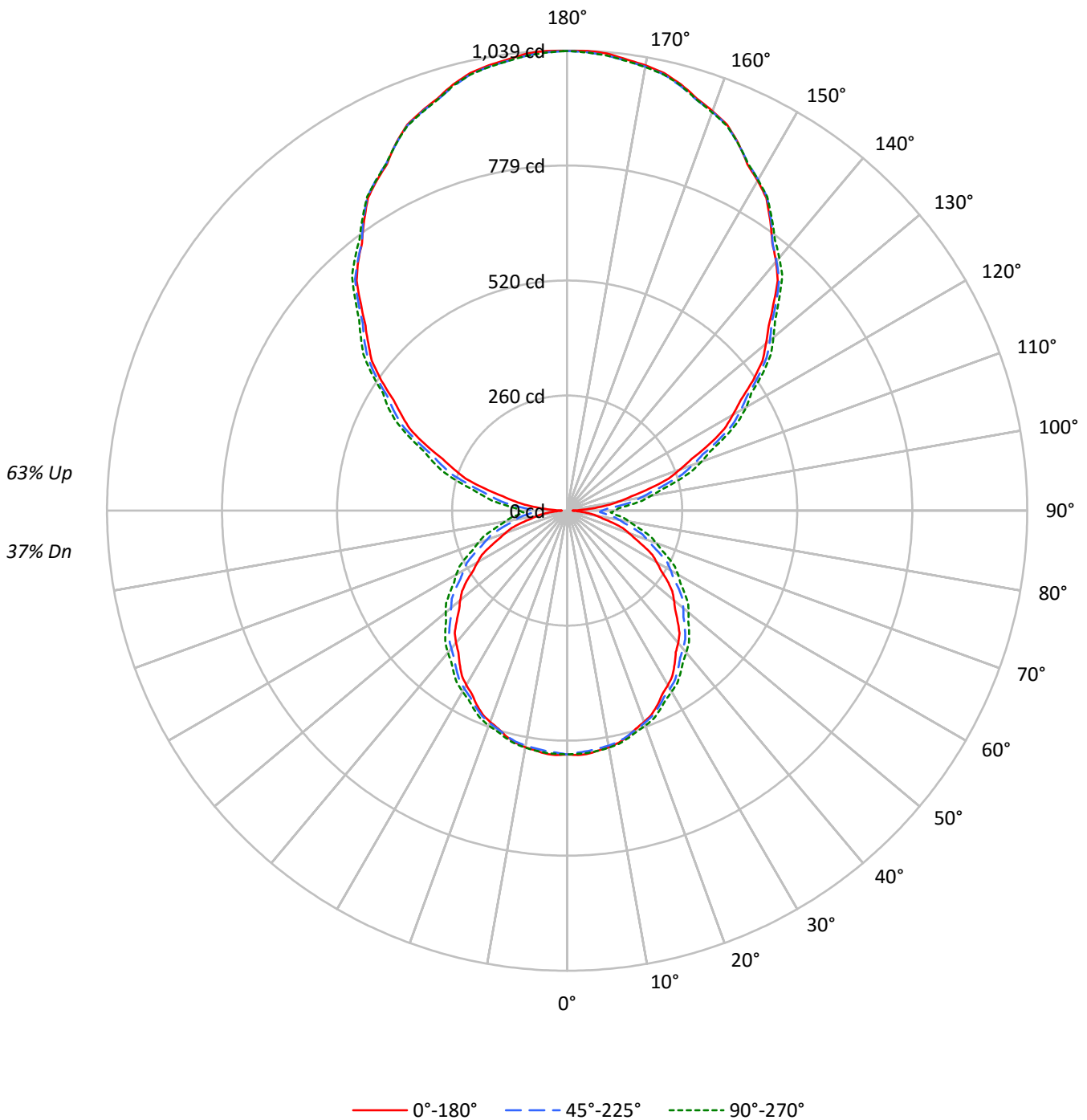
Input Watts (W): 45.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332760-927

CATALOG NUMBER: S124DIW-S575D1050U927-4F0-1E-UDD-D1

Luminous Intensity Polar Plot





TEST NUMBER: P332760-927

CATALOG NUMBER: S124DIW-S575D1050U927-4F0-1E-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	104	104	104	104	94	94	94	94	76	76	76	59	59	59	44	44	44	37
1	94	89	85	82	85	81	78	74	65	63	61	51	49	48	37	36	35	29
2	85	78	71	66	77	70	65	60	57	53	50	44	41	39	32	31	29	24
3	78	68	60	55	70	62	55	50	50	45	41	39	35	33	29	26	24	20
4	71	60	52	46	64	54	47	42	44	39	35	34	31	28	25	23	21	17
5	65	53	45	39	58	48	41	36	39	34	30	31	27	24	23	20	18	14
6	60	47	39	34	54	43	36	31	35	30	26	28	24	21	21	18	16	13
7	55	43	35	29	50	39	32	27	32	26	23	25	21	18	19	16	14	11
8	51	39	31	26	46	35	28	24	29	24	20	23	19	16	17	14	12	10
9	47	35	28	23	43	32	26	21	26	21	18	21	17	14	16	13	11	9
10	44	32	25	20	40	29	23	19	24	19	16	19	16	13	15	12	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4444	4444	4444
5°	4458	4343	4355
10°	4431	4273	4269
15°	4391	4190	4167
20°	4331	4099	4068
25°	4264	3998	3958
30°	4191	3896	3847
35°	4108	3792	3748
40°	4041	3694	3646
45°	3943	3603	3558
50°	3860	3498	3465
55°	3775	3400	3356
60°	3640	3274	3257
65°	3494	3139	3136
70°	3315	2985	2993
75°	3068	2814	2864
80°	2794	2652	2738
85°	2439	2507	2665



TEST NUMBER: P332760-927

CATALOG NUMBER: S124DIW-S575D1050U927-4F0-1E-UDD-D1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.1	1.1
10°-20°	149.4	3.1
20°-30°	225.8	4.7
30°-40°	273.2	5.7
40°-50°	288.9	6.1
50°-60°	271.9	5.7
60°-70°	225.6	4.7
70°-80°	158.4	3.3
80°-90°	92.7	1.9
90°-100°	121.6	2.6
100°-110°	242.1	5.1
110°-120°	370.5	7.8
120°-130°	468.7	9.8
130°-140°	516.0	10.8
140°-150°	502.1	10.6
150°-160°	421.2	8.9
160°-170°	280.2	5.9
170°-180°	98.1	2.1
0°-30°	427.3	9.0
0°-40°	700.6	14.7
0°-60°	1261.3	26.5
0°-90°	1738.0	36.5
90°-120°	734.3	15.4
90°-150°	2221.0	46.7
90°-180°	3021.0	63.5
0°-180°	4758.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	550	550	550	550	550	
5°	551	549	545	550	549	52
15°	528	529	527	532	532	149
25°	483	487	489	495	496	223
35°	423	430	436	445	447	265
45°	353	364	376	386	390	272
55°	276	289	308	319	324	246
65°	191	211	232	247	252	189
75°	106	129	155	171	178	113
85°	33	59	86	104	111	35
90°	12	46	79	100	108	10
95°	56	84	115	133	139	60
105°	192	206	232	249	257	205
115°	354	360	377	390	394	349
125°	512	512	526	536	538	456
135°	658	663	668	675	677	509
145°	799	802	802	805	806	500
155°	915	915	914	917	914	421
165°	996	994	992	996	994	281
175°	1036	1032	1031	1036	1031	98
180°	1038	1038	1038	1038	1038	



TEST NUMBER: P332760-927

CATALOG NUMBER: S124DIW-S575D1050U927-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	550.5	550.5	550.5	550.5	550.5	550.5	550.5	550.5	550.5	550.5	550.5
2.5°	552.5	552.2	551.8	551.4	551.1	550.6	549.7	548.8	547.9	547.0	547.8
5°	551.1	550.7	550.2	549.9	549.5	548.7	547.8	546.8	545.9	544.9	546.1
7.5°	546.4	546.1	545.9	545.7	545.4	544.9	544.2	543.4	542.5	541.7	543.0
10°	542.5	542.3	542.2	542.1	541.9	541.5	540.8	540.1	539.5	538.8	540.0
12.5°	537.0	537.0	537.0	536.9	536.9	536.7	536.2	535.8	535.3	534.8	535.9
15°	528.3	528.5	528.5	528.7	528.9	528.7	528.3	527.9	527.4	527.0	528.3
17.5°	516.3	516.7	517.1	517.5	518.0	518.2	518.1	518.0	517.9	517.8	519.0
20°	507.9	508.3	508.7	509.2	509.6	509.8	510.0	510.2	510.2	510.4	511.7
22.5°	498.6	499.1	499.6	500.1	500.7	501.1	501.3	501.5	501.8	502.0	503.4
25°	483.3	484.1	485.0	485.8	486.6	487.2	487.6	488.0	488.5	488.9	490.4
27.5°	466.3	467.5	468.7	469.9	471.1	472.0	472.6	473.2	473.9	474.5	475.9
30°	455.0	456.1	457.1	458.2	459.3	460.3	461.3	462.2	463.2	464.2	465.7
32.5°	442.6	443.9	445.2	446.6	447.9	449.1	450.1	451.2	452.3	453.4	455.0
35°	422.9	424.5	426.2	427.8	429.4	430.9	432.3	433.7	435.1	436.4	438.4
37.5°	403.1	404.9	406.8	408.7	410.6	412.4	414.1	415.8	417.5	419.1	421.1
40°	390.2	392.0	393.8	395.5	397.4	399.2	401.1	403.0	405.0	406.9	408.9
42.5°	375.4	377.4	379.4	381.4	383.4	385.6	387.8	390.0	392.3	394.5	396.8
45°	352.6	355.2	357.8	360.4	363.0	365.6	368.2	370.8	373.4	376.0	378.3
47.5°	330.8	333.4	336.1	338.8	341.5	344.4	347.4	350.4	353.4	356.4	358.9
50°	315.0	318.0	321.0	324.1	327.1	330.1	333.1	336.1	339.1	342.1	344.8
52.5°	299.2	302.2	305.2	308.2	311.2	314.5	318.0	321.4	324.9	328.3	331.1
55°	276.2	279.0	281.9	284.8	287.6	291.1	295.2	299.4	303.5	307.6	310.4
57.5°	250.4	254.0	257.5	261.1	264.7	268.5	272.5	276.6	280.7	284.8	288.0
60°	233.6	237.2	240.7	244.3	247.9	251.9	256.4	260.9	265.5	270.0	273.1
62.5°	217.4	221.3	225.1	229.0	232.9	237.1	241.6	246.1	250.7	255.2	258.3
65°	191.1	195.5	199.9	204.2	208.7	213.2	217.8	222.4	227.1	231.8	235.2
67.5°	165.8	170.5	175.2	179.8	184.4	189.3	194.2	199.2	204.2	209.2	212.7
70°	148.5	153.2	157.9	162.6	167.2	172.1	177.3	182.5	187.7	193.0	196.6
72.5°	131.8	136.6	141.3	146.1	150.8	156.0	161.5	167.1	172.6	178.2	181.7
75°	106.0	111.1	116.1	121.2	126.3	131.7	137.4	143.2	149.0	154.7	158.6
77.5°	82.0	87.4	92.8	98.1	103.5	109.2	115.2	121.2	127.2	133.2	137.1
80°	67.2	72.6	78.2	83.7	89.1	94.8	100.9	106.9	113.0	119.0	123.1
82.5°	52.4	58.1	63.8	69.5	75.2	81.0	87.1	93.1	99.1	105.2	109.4
85°	32.6	38.4	44.2	49.9	55.7	61.6	67.8	74.0	80.2	86.3	90.4
87.5°	18.7	24.7	30.7	36.7	42.6	48.8	55.1	61.4	67.7	73.9	78.1
90°	12.3	19.7	27.2	34.6	42.1	49.4	56.7	64.1	71.4	78.7	83.7
92.5°	26.5	33.7	40.9	48.1	55.3	62.3	69.2	76.0	82.9	89.8	94.3
95°	56.2	62.3	68.4	74.5	80.6	87.1	94.0	100.9	107.7	114.6	118.8
97.5°	91.3	96.6	101.7	106.9	112.1	118.2	125.2	132.2	139.3	146.2	150.5
100°	119.1	123.4	127.7	132.0	136.3	141.9	148.8	155.7	162.7	169.6	173.7
102.5°	148.7	152.1	155.5	158.9	162.3	167.4	174.0	180.8	187.4	194.2	198.2
105°	192.5	195.4	198.4	201.3	204.2	208.6	214.4	220.1	225.9	231.7	235.7
107.5°	239.8	242.2	244.7	247.2	249.6	253.3	258.2	263.1	268.0	272.9	276.8
110°	271.4	273.6	275.9	278.2	280.4	283.9	288.5	293.1	297.8	302.4	305.1



TEST NUMBER: P332760-927

CATALOG NUMBER: S124DIW-S575D1050U927-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	304.3	306.0	307.8	309.6	311.3	314.3	318.6	322.9	327.1	331.4	334.3
115°	353.6	354.8	356.1	357.3	358.5	361.2	365.2	369.2	373.3	377.2	380.1
117.5°	400.7	401.6	402.4	403.3	404.2	406.5	410.4	414.2	418.0	421.8	424.1
120°	431.7	432.8	433.9	435.0	436.1	438.4	441.9	445.3	448.7	452.2	454.0
122.5°	464.4	464.8	465.1	465.5	465.8	467.8	471.3	474.8	478.3	481.8	483.9
125°	512.1	511.9	511.7	511.7	511.5	513.1	516.3	519.6	522.8	526.1	528.3
127.5°	555.8	556.2	556.6	557.0	557.4	558.7	561.1	563.4	565.8	568.1	570.2
130°	586.1	586.5	586.8	587.2	587.6	589.0	591.1	593.3	595.6	597.7	599.8
132.5°	617.5	617.8	618.1	618.3	618.5	619.5	621.1	622.7	624.3	625.9	628.0
135°	658.5	659.6	660.6	661.7	662.7	663.8	664.7	665.7	666.7	667.7	669.5
137.5°	703.8	704.1	704.5	704.8	705.2	705.8	706.5	707.3	708.1	708.8	710.3
140°	734.0	734.1	734.4	734.6	734.8	735.0	735.1	735.2	735.4	735.5	737.1
142.5°	761.0	761.4	761.7	762.0	762.4	762.4	762.2	762.0	761.8	761.5	763.0
145°	799.2	799.7	800.3	800.8	801.5	801.8	802.0	802.2	802.3	802.5	803.2
147.5°	837.0	837.7	838.4	839.2	839.9	840.2	840.0	839.9	839.7	839.6	839.6
150°	860.1	860.7	861.3	861.8	862.4	862.7	862.7	862.7	862.7	862.7	862.7
152.5°	881.5	881.9	882.3	882.6	883.0	883.3	883.4	883.6	883.8	883.9	884.3
155°	914.9	914.9	914.9	914.9	914.9	914.8	914.6	914.4	914.3	914.1	914.8
157.5°	943.1	942.8	942.5	942.1	941.8	941.7	941.6	941.6	941.5	941.5	942.1
160°	959.8	959.6	959.4	959.3	959.1	958.9	958.7	958.5	958.4	958.2	958.7
162.5°	975.2	974.8	974.3	973.8	973.4	973.0	972.9	972.7	972.5	972.3	973.3
165°	995.9	995.4	994.8	994.3	993.8	993.3	993.0	992.6	992.3	991.9	993.0
167.5°	1011.8	1011.1	1010.3	1009.6	1008.8	1008.4	1008.5	1008.5	1008.5	1008.6	1009.6
170°	1020.8	1019.9	1019.0	1018.1	1017.2	1016.8	1017.1	1017.2	1017.4	1017.6	1018.7
172.5°	1027.2	1026.4	1025.7	1025.0	1024.2	1023.9	1023.9	1024.0	1024.0	1024.0	1025.2
175°	1036.0	1035.1	1034.3	1033.4	1032.5	1032.0	1031.7	1031.6	1031.4	1031.3	1032.5
177.5°	1038.9	1038.2	1037.5	1036.8	1036.1	1035.7	1035.7	1035.7	1035.7	1035.7	1036.7
180°	1037.7	1037.7	1037.7	1037.7	1037.7	1037.7	1037.7	1037.7	1037.7	1037.7	1037.7



TEST NUMBER: P332760-927

CATALOG NUMBER: S124DIW-S575D1050U927-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	550.5	550.5	550.5	550.5	550.5	550.5	550.5	550.5
2.5°	548.6	549.3	550.1	550.4	550.3	550.2	550.1	550.0
5°	547.2	548.2	549.3	549.8	549.7	549.5	549.4	549.2
7.5°	544.2	545.4	546.7	547.2	547.1	546.9	546.8	546.7
10°	541.2	542.5	543.7	544.2	544.2	544.0	543.8	543.7
12.5°	537.1	538.2	539.3	539.9	539.9	539.8	539.8	539.8
15°	529.5	530.8	532.0	532.5	532.4	532.3	532.1	532.0
17.5°	520.3	521.6	522.8	523.4	523.3	523.2	523.1	523.0
20°	513.2	514.5	515.9	516.6	516.6	516.6	516.6	516.6
22.5°	504.8	506.1	507.5	508.3	508.5	508.7	509.0	509.2
25°	491.9	493.4	494.9	495.7	495.8	496.0	496.1	496.2
27.5°	477.4	478.7	480.1	480.9	481.1	481.3	481.4	481.6
30°	467.2	468.7	470.2	471.1	471.3	471.7	471.9	472.2
32.5°	456.8	458.5	460.3	461.2	461.5	461.8	462.1	462.3
35°	440.3	442.2	444.1	445.3	445.7	446.1	446.5	446.9
37.5°	423.1	425.0	427.0	428.2	428.6	429.0	429.4	429.9
40°	411.0	413.0	415.1	416.4	416.9	417.5	418.0	418.6
42.5°	399.1	401.3	403.6	405.0	405.4	405.8	406.3	406.7
45°	380.7	383.0	385.3	386.8	387.5	388.2	388.9	389.6
47.5°	361.2	363.7	366.1	367.7	368.5	369.3	370.2	371.0
50°	347.6	350.4	353.1	354.9	355.7	356.5	357.4	358.1
52.5°	333.8	336.5	339.3	341.0	341.9	342.7	343.5	344.4
55°	313.1	315.8	318.5	320.4	321.2	322.0	322.8	323.6
57.5°	291.3	294.6	297.9	299.8	300.6	301.3	302.1	302.9
60°	276.3	279.5	282.6	284.7	285.8	286.9	288.0	289.1
62.5°	261.5	264.7	267.8	269.9	271.0	272.1	273.2	274.3
65°	238.6	242.1	245.5	247.7	248.8	249.9	251.0	252.2
67.5°	216.2	219.7	223.2	225.4	226.5	227.5	228.6	229.7
70°	200.3	204.1	207.7	210.1	211.0	212.0	212.9	213.9
72.5°	185.3	188.9	192.5	194.8	195.9	196.9	198.0	199.1
75°	162.4	166.2	170.1	172.6	173.8	175.1	176.3	177.5
77.5°	141.1	145.0	148.9	151.5	152.7	154.1	155.3	156.7
80°	127.2	131.3	135.4	138.0	139.1	140.2	141.3	142.4
82.5°	113.6	117.8	122.1	124.8	126.0	127.1	128.3	129.6
85°	94.5	98.6	102.7	105.5	106.9	108.2	109.6	111.0
87.5°	82.3	86.5	90.7	93.4	94.7	95.9	97.2	98.5
90°	88.8	93.8	98.9	102.1	103.5	105.0	106.5	107.9
92.5°	98.9	103.4	107.9	110.7	112.1	113.4	114.7	116.1
95°	123.1	127.3	131.6	134.3	135.5	136.7	138.0	139.2
97.5°	154.7	159.0	163.2	165.9	167.1	168.3	169.4	170.6
100°	177.8	181.8	185.8	188.4	189.3	190.3	191.2	192.2
102.5°	202.3	206.4	210.5	213.1	214.4	215.6	216.7	218.0
105°	239.6	243.6	247.6	250.3	251.9	253.6	255.2	256.8
107.5°	280.6	284.5	288.4	290.8	291.8	292.7	293.7	294.6
110°	308.0	310.8	313.5	315.8	317.4	319.0	320.7	322.3



TEST NUMBER: P332760-927

CATALOG NUMBER: S124DIW-S575D1050U927-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	337.3	340.2	343.3	345.3	346.5	347.8	349.0	350.1
115°	382.9	385.8	388.6	390.4	391.2	392.0	392.8	393.6
117.5°	426.4	428.6	430.9	432.4	433.1	433.8	434.6	435.3
120°	455.8	457.7	459.5	461.2	462.6	464.1	465.6	467.0
122.5°	486.1	488.2	490.4	491.5	491.9	492.3	492.6	493.0
125°	530.5	532.8	535.0	536.4	536.9	537.3	537.8	538.3
127.5°	572.4	574.4	576.6	577.9	578.5	579.2	579.9	580.5
130°	602.0	604.0	606.2	607.3	607.4	607.5	607.6	607.7
132.5°	629.9	631.9	633.9	635.2	635.7	636.3	636.8	637.3
135°	671.3	673.1	674.9	676.0	676.3	676.6	676.9	677.2
137.5°	711.9	713.4	714.9	716.1	716.8	717.6	718.4	719.2
140°	738.7	740.4	742.0	743.0	743.5	744.0	744.5	745.0
142.5°	764.5	766.1	767.6	768.7	769.2	769.8	770.2	770.8
145°	803.8	804.5	805.1	805.4	805.4	805.4	805.5	805.5
147.5°	839.6	839.5	839.5	839.6	839.8	840.1	840.3	840.6
150°	862.7	862.7	862.7	862.6	862.4	862.3	862.1	861.9
152.5°	884.7	885.2	885.6	885.6	885.1	884.6	884.2	883.8
155°	915.5	916.2	917.0	917.0	916.2	915.5	914.8	914.1
157.5°	942.6	943.1	943.6	943.6	943.0	942.4	941.8	941.2
160°	959.3	959.8	960.4	960.1	959.3	958.4	957.5	956.6
162.5°	974.2	975.2	976.2	976.2	975.3	974.5	973.5	972.6
165°	994.0	995.1	996.2	996.3	995.6	994.9	994.2	993.5
167.5°	1010.7	1011.8	1012.9	1012.9	1011.8	1010.7	1009.6	1008.4
170°	1019.7	1020.8	1021.8	1021.8	1020.6	1019.3	1018.0	1016.8
172.5°	1026.4	1027.6	1028.9	1028.8	1027.6	1026.4	1025.1	1023.8
175°	1033.7	1035.0	1036.3	1036.3	1035.0	1033.7	1032.5	1031.3
177.5°	1037.8	1038.7	1039.7	1039.7	1038.5	1037.4	1036.3	1035.1
180°	1037.7	1037.7	1037.7	1037.7	1037.7	1037.7	1037.7	1037.7

(END OF REPORT)