

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: P332748-927

Luminaire Tested: **S124DIW-S575D470U927-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332748-927
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-S575D470U927-4F0-1E-UDD-D1
Description: DEFINE 4 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 575 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: 3165.6 lumens
Efficiency: N/A
Efficacy: 104.8 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: General Diffuse

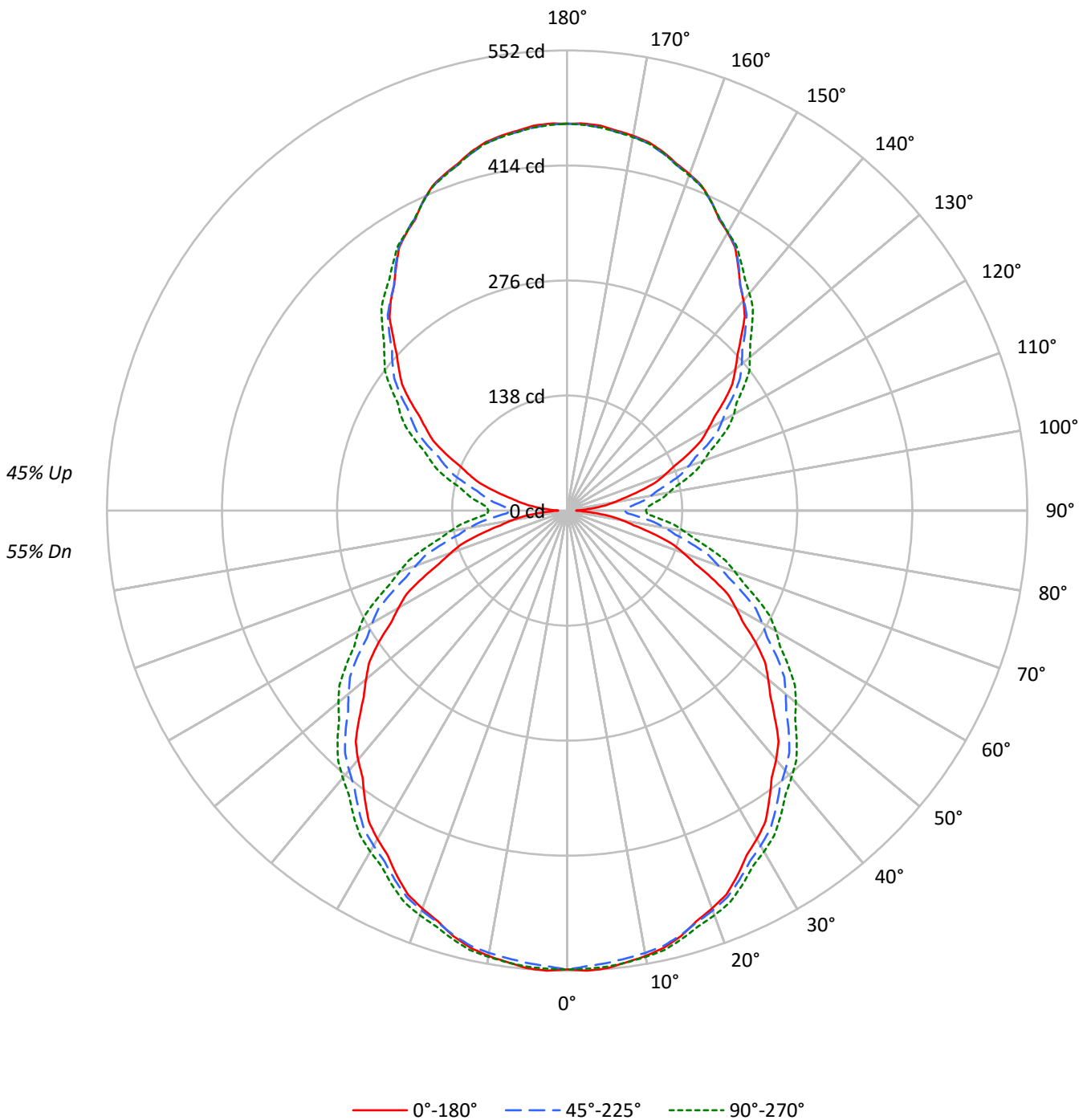
Input Watts (W): 30.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332748-927

CATALOG NUMBER: S124DIW-S575D470U927-4F0-1E-UDD-D1

Luminous Intensity Polar Plot





TEST NUMBER: P332748-927

CATALOG NUMBER: S124DIW-S575D470U927-4F0-1E-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	108	108	108	108	101	101	101	101	86	86	86	73	73	73	61	61	61	55
1	98	93	89	85	90	86	82	79	74	71	68	62	60	58	52	50	49	44
2	89	80	74	68	82	75	69	64	64	60	56	54	51	48	45	42	40	36
3	80	70	63	56	74	65	58	53	56	51	46	47	43	40	39	36	34	30
4	73	62	54	47	68	58	50	45	50	44	39	42	38	34	35	32	29	25
5	67	55	47	40	62	51	44	38	44	38	34	38	33	29	31	28	25	22
6	62	49	41	35	57	46	38	33	40	34	29	34	29	25	28	25	22	19
7	57	44	36	30	53	42	34	29	36	30	26	31	26	22	26	22	19	17
8	53	40	32	27	49	38	30	25	33	27	23	28	23	20	24	20	17	15
9	49	37	29	24	46	34	27	23	30	24	20	26	21	18	22	18	15	13
10	46	34	26	21	43	32	25	20	28	22	18	24	19	16	20	17	14	12

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: P332748-927

CATALOG NUMBER: S124DIW-S575D470U927-4F0-1E-UDD-D1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.1	1.6
10°-20°	149.4	4.7
20°-30°	225.8	7.1
30°-40°	273.2	8.6
40°-50°	288.9	9.1
50°-60°	271.9	8.6
60°-70°	225.6	7.1
70°-80°	158.4	5.0
80°-90°	91.0	2.9
90°-100°	83.8	2.6
100°-110°	130.1	4.1
110°-120°	180.3	5.7
120°-130°	217.9	6.9
130°-140°	234.4	7.4
140°-150°	225.3	7.1
150°-160°	188.4	6.0
160°-170°	125.3	4.0
170°-180°	43.9	1.4
0°-30°	427.3	13.5
0°-40°	700.6	22.1
0°-60°	1261.3	39.8
0°-90°	1736.2	54.8
90°-120°	394.2	12.5
90°-150°	1071.8	33.9
90°-180°	1429.0	45.1
0°-180°	3165.6	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°	11	40	69	88	95	8
95°	30	53	81	98	104	30
105°	89	102	126	142	149	95
115°	160	167	185	197	202	158
125°	230	231	245	255	259	205
135°	295	298	302	310	314	228
145°	358	359	359	362	364	224
155°	409	409	409	410	409	188
165°	445	444	444	446	444	126
175°	463	462	461	464	461	44
180°	464	464	464	464	464	



TEST NUMBER: P332748-927

CATALOG NUMBER: S124DIW-S575D470U927-4F0-1E-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°	18.5	24.2	30.0	35.7	41.5	47.5	53.6	59.7	65.8	72.0	76.0
90°	10.9	17.3	23.7	30.0	36.4	42.8	49.4	55.8	62.4	68.9	73.4
92.5°	17.0	23.0	28.9	34.9	40.8	46.9	53.2	59.6	65.9	72.2	76.4
95°	29.5	34.8	40.0	45.2	50.5	56.2	62.4	68.5	74.7	80.9	84.8
97.5°	44.9	49.4	53.8	58.3	62.7	68.1	74.3	80.5	86.7	92.9	96.8
100°	57.0	60.9	64.8	68.7	72.6	77.6	83.6	89.7	95.7	101.8	105.6
102.5°	70.3	73.5	76.8	80.0	83.3	87.9	93.7	99.6	105.5	111.4	115.2
105°	89.2	92.0	94.8	97.7	100.4	104.6	110.0	115.3	120.7	126.1	129.8
107.5°	110.3	112.6	114.9	117.2	119.6	123.2	128.0	132.9	137.8	142.6	146.2
110°	124.1	126.2	128.3	130.3	132.5	135.8	140.5	145.2	150.0	154.7	157.6



TEST NUMBER: P332748-927

CATALOG NUMBER: S124DIW-S575D470U927-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	138.6	140.3	142.0	143.7	145.4	148.5	153.0	157.4	161.8	166.3	169.3
115°	160.2	161.4	162.7	163.9	165.2	167.9	172.1	176.3	180.5	184.7	187.7
117.5°	181.2	182.0	182.8	183.6	184.4	186.8	190.8	194.7	198.7	202.6	205.3
120°	194.8	195.5	196.2	196.9	197.7	199.9	203.7	207.4	211.1	214.8	217.2
122.5°	209.5	209.6	209.8	210.1	210.2	212.1	215.8	219.4	223.1	226.7	229.3
125°	230.4	230.3	230.1	230.0	229.9	231.5	234.8	238.1	241.5	244.9	247.3
127.5°	249.9	250.0	250.1	250.2	250.3	251.6	254.1	256.6	259.1	261.6	264.0
130°	263.2	263.3	263.4	263.5	263.6	264.7	267.0	269.1	271.3	273.5	275.8
132.5°	277.3	277.3	277.3	277.3	277.4	278.3	280.0	281.6	283.4	285.0	287.2
135°	295.2	295.7	296.2	296.7	297.1	297.9	298.8	299.8	300.7	301.7	303.7
137.5°	315.4	315.5	315.7	315.8	315.8	316.2	316.8	317.3	317.9	318.5	320.4
140°	329.0	329.0	329.0	329.1	329.1	329.2	329.3	329.4	329.5	329.7	331.4
142.5°	340.8	341.0	341.1	341.2	341.4	341.4	341.2	341.0	340.9	340.8	342.3
145°	357.8	358.0	358.1	358.3	358.5	358.6	358.7	358.8	358.9	358.9	359.7
147.5°	374.7	375.0	375.3	375.5	375.7	375.8	375.7	375.7	375.7	375.6	375.6
150°	385.1	385.2	385.5	385.6	385.8	385.9	385.9	385.9	385.9	385.9	385.9
152.5°	394.3	394.5	394.7	394.8	395.0	395.1	395.1	395.2	395.3	395.4	395.5
155°	409.2	409.2	409.2	409.2	409.2	409.2	409.1	409.0	408.9	408.8	409.2
157.5°	421.8	421.7	421.6	421.4	421.3	421.2	421.2	421.2	421.1	421.1	421.4
160°	429.4	429.3	429.2	429.1	429.0	429.0	428.9	428.8	428.7	428.6	428.9
162.5°	436.3	436.0	435.8	435.6	435.4	435.2	435.1	435.1	435.0	434.9	435.4
165°	445.4	445.2	445.0	444.7	444.5	444.3	444.2	444.0	443.9	443.7	444.2
167.5°	452.6	452.3	451.9	451.6	451.2	451.1	451.1	451.1	451.1	451.1	451.6
170°	456.6	456.2	455.8	455.4	455.0	454.9	455.0	455.0	455.1	455.2	455.7
172.5°	459.5	459.1	458.8	458.5	458.1	458.0	458.0	458.0	458.0	458.0	458.6
175°	463.4	463.0	462.6	462.2	461.8	461.6	461.5	461.4	461.4	461.3	461.8
177.5°	464.7	464.4	464.1	463.7	463.4	463.3	463.3	463.3	463.3	463.3	463.7
180°	464.1	464.1	464.1	464.1	464.1	464.1	464.1	464.1	464.1	464.1	464.1



TEST NUMBER: P332748-927

CATALOG NUMBER: S124DIW-S575D470U927-4F0-1E-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°	80.1	84.2	88.2	90.9	92.1	93.4	94.6	95.9
90°	77.8	82.3	86.7	89.6	90.9	92.1	93.3	94.6
92.5°	80.6	84.8	88.9	91.6	92.8	94.0	95.1	96.3
95°	88.8	92.8	96.6	99.3	100.4	101.7	103.0	104.2
97.5°	100.7	104.6	108.4	111.0	112.2	113.4	114.5	115.7
100°	109.5	113.4	117.2	119.6	120.6	121.5	122.5	123.4
102.5°	119.0	122.8	126.6	129.1	130.2	131.3	132.5	133.6
105°	133.5	137.1	140.8	143.3	144.6	145.9	147.3	148.6
107.5°	149.7	153.4	156.9	159.2	160.2	161.2	162.2	163.1
110°	160.7	163.7	166.7	168.8	170.2	171.5	172.8	174.1



TEST NUMBER: P332748-927

CATALOG NUMBER: S124DIW-S575D470U927-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	172.3	175.3	178.3	180.4	181.6	182.7	183.8	185.0
115°	190.6	193.5	196.5	198.4	199.3	200.2	201.1	201.9
117.5°	207.9	210.4	213.0	214.8	215.7	216.6	217.5	218.5
120°	219.5	221.9	224.2	226.0	227.3	228.5	229.8	231.1
122.5°	231.7	234.2	236.6	238.2	238.9	239.6	240.3	241.0
125°	249.7	252.2	254.6	256.2	256.8	257.5	258.2	258.8
127.5°	266.3	268.5	270.8	272.4	273.2	274.0	274.8	275.6
130°	278.1	280.4	282.7	284.2	284.6	285.1	285.7	286.1
132.5°	289.4	291.6	293.8	295.2	296.0	296.7	297.3	298.0
135°	305.8	307.8	309.8	311.2	311.7	312.3	312.9	313.5
137.5°	322.1	323.9	325.7	326.9	327.7	328.4	329.2	329.9
140°	333.1	334.8	336.5	337.6	338.3	338.9	339.5	340.1
142.5°	343.9	345.4	347.0	348.0	348.6	349.1	349.7	350.2
145°	360.4	361.2	361.9	362.5	362.7	363.1	363.4	363.7
147.5°	375.7	375.7	375.7	376.0	376.3	376.7	377.0	377.4
150°	385.9	385.9	385.9	385.9	385.8	385.7	385.6	385.6
152.5°	395.8	395.9	396.2	396.1	395.9	395.7	395.5	395.3
155°	409.5	409.8	410.1	410.1	409.8	409.5	409.2	408.8
157.5°	421.6	421.8	422.1	422.1	421.8	421.5	421.3	421.0
160°	429.1	429.4	429.6	429.5	429.1	428.7	428.3	427.9
162.5°	435.8	436.3	436.7	436.7	436.3	435.9	435.5	435.1
165°	444.7	445.1	445.6	445.7	445.4	445.0	444.7	444.4
167.5°	452.1	452.6	453.0	453.0	452.6	452.1	451.5	451.1
170°	456.1	456.6	457.1	457.0	456.5	455.9	455.3	454.8
172.5°	459.1	459.7	460.2	460.2	459.6	459.1	458.5	458.0
175°	462.4	463.0	463.5	463.5	463.0	462.4	461.8	461.3
177.5°	464.2	464.6	465.1	465.0	464.5	464.1	463.5	463.0
180°	464.1	464.1	464.1	464.1	464.1	464.1	464.1	464.1

(END OF REPORT)