

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: P332762-940

Luminaire Tested: **S124DIW-S575D1050U940-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332762-940
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-S575D1050U940-4F0-1E-UDD-F1
Description: DEFINE 4 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, FLUSH 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: 5466.3 lumens
Efficiency: N/A
Efficacy: 120.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: General Diffuse

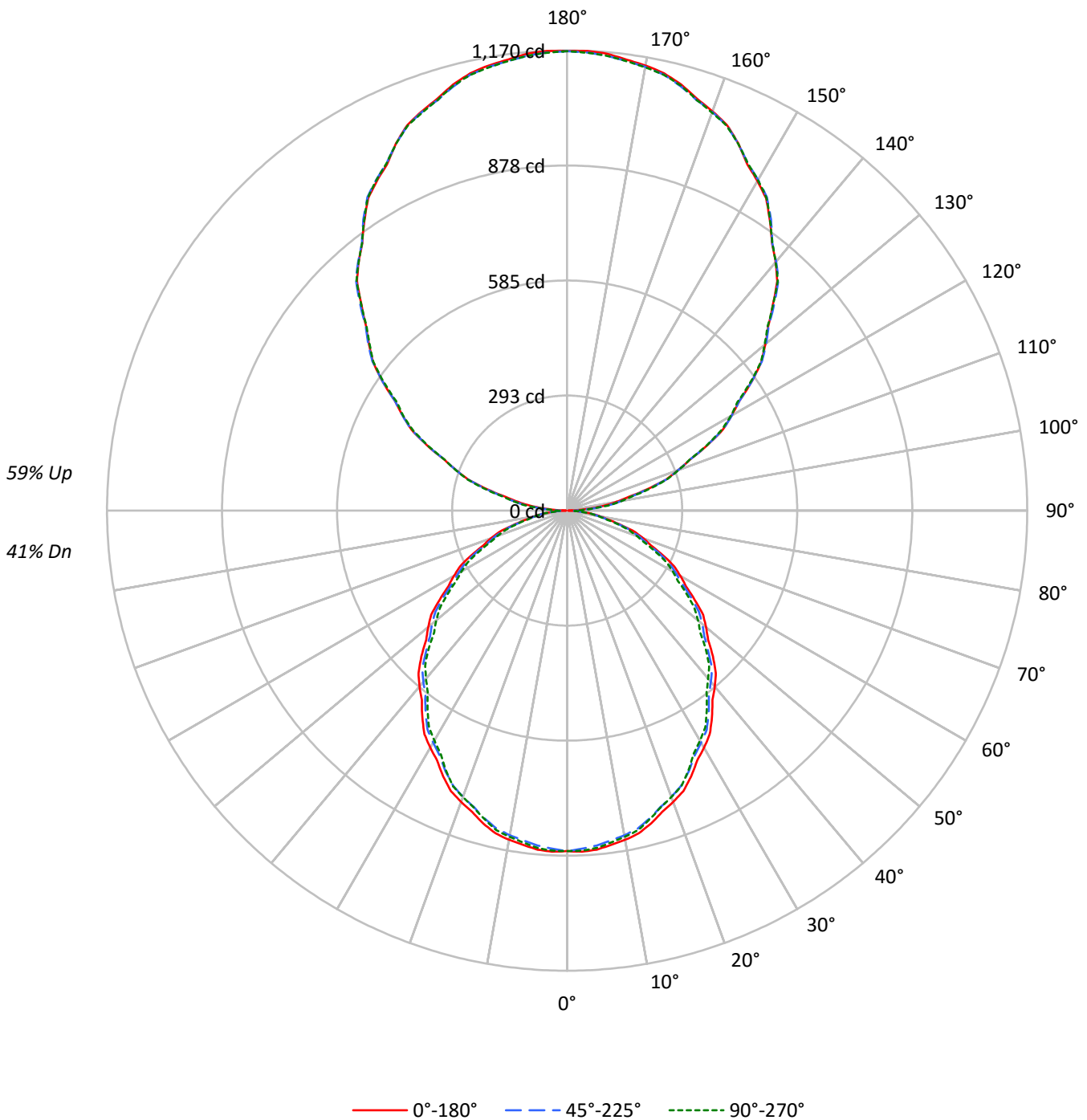
Input Watts (W): 45.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332762-940

CATALOG NUMBER: S124DIW-S575D1050U940-4F0-1E-UDD-F1

Luminous Intensity Polar Plot





TEST NUMBER: P332762-940

CATALOG NUMBER: S124DIW-S575D1050U940-4F0-1E-UDD-F1

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	105	105	105	105	96	96	96	96	78	78	78	62	62	62	48	48	48	41
1	96	91	88	84	87	83	80	77	68	66	64	55	53	52	42	41	40	34
2	87	80	74	69	79	73	68	63	60	56	53	48	45	43	37	35	34	29
3	79	70	63	57	72	64	58	53	53	48	44	42	39	36	33	31	29	24
4	73	62	54	48	66	57	50	45	47	42	38	38	34	31	29	27	25	21
5	67	55	47	41	60	51	44	38	42	37	33	34	30	27	26	24	22	18
6	61	49	41	36	56	45	38	33	38	32	28	31	27	24	24	21	19	16
7	57	45	37	31	51	41	34	29	34	29	25	28	24	21	22	19	17	14
8	52	40	33	27	48	37	30	26	31	26	22	25	21	19	20	17	15	13
9	49	37	29	24	44	34	27	23	28	23	20	23	19	17	18	16	14	11
10	46	34	27	22	42	31	25	20	26	21	18	22	18	15	17	14	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6990	6990	6990
5°	7012	6928	6978
10°	6968	6871	6906
15°	6884	6774	6791
20°	6772	6653	6659
25°	6644	6515	6495
30°	6488	6352	6293
35°	6326	6182	6099
40°	6157	5989	5879
45°	5981	5799	5688
50°	5786	5630	5456
55°	5576	5410	5234
60°	5365	5165	5007
65°	5129	4932	4732
70°	4865	4617	4440
75°	4457	4242	4133
80°	3966	3808	3710
85°	3473	3344	3279



TEST NUMBER: P332762-940

CATALOG NUMBER: S124DIW-S575D1050U940-4F0-1E-UDD-F1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.6	1.5
10°-20°	229.8	4.2
20°-30°	338.2	6.2
30°-40°	393.2	7.2
40°-50°	393.2	7.2
50°-60°	343.9	6.3
60°-70°	255.4	4.7
70°-80°	145.1	2.7
80°-90°	45.4	0.8
90°-100°	77.0	1.4
100°-110°	228.2	4.2
110°-120°	387.4	7.1
120°-130°	510.8	9.3
130°-140°	573.6	10.5
140°-150°	563.7	10.3
150°-160°	474.1	8.7
160°-170°	315.4	5.8
170°-180°	110.5	2.0
0°-30°	649.5	11.9
0°-40°	1042.7	19.1
0°-60°	1779.8	32.6
0°-90°	2225.7	40.7
90°-120°	692.6	12.7
90°-150°	2340.6	42.8
90°-180°	3241.0	59.3
0°-180°	5466.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	866	866	866	866	866	
5°	865	862	855	862	861	82
15°	824	820	810	814	812	232
25°	746	741	731	732	729	343
35°	642	637	627	622	619	401
45°	524	519	508	501	498	404
55°	396	394	384	376	372	355
65°	268	265	258	251	248	266
75°	143	139	136	133	132	152
85°	38	37	36	36	35	41
90°	3	12	20	25	27	5
95°	54	62	69	71	71	60
105°	210	212	215	218	220	223
115°	394	394	392	391	390	388
125°	574	574	573	571	569	511
135°	740	745	745	743	741	572
145°	899	902	903	902	900	562
155°	1030	1030	1029	1032	1029	474
165°	1121	1118	1116	1121	1118	316
175°	1166	1162	1161	1166	1161	111
180°	1168	1168	1168	1168	1168	



TEST NUMBER: P332762-940

CATALOG NUMBER: S124DIW-S575D1050U940-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	865.9	865.9	865.9	865.9	865.9	865.9	865.9	865.9	865.9	865.9	865.9
2.5°	868.2	867.8	867.5	867.1	866.7	865.9	864.5	863.2	861.7	860.4	861.7
5°	865.3	864.7	864.1	863.4	862.8	861.7	860.0	858.3	856.6	854.9	856.6
7.5°	857.2	856.6	856.0	855.4	854.8	853.5	851.7	849.8	847.8	846.0	847.4
10°	850.0	849.4	848.8	848.2	847.6	846.2	844.3	842.2	840.3	838.2	839.5
12.5°	840.6	840.0	839.4	838.7	838.1	836.8	834.6	832.5	830.4	828.2	829.6
15°	823.7	823.0	822.4	821.8	821.2	819.7	817.4	815.1	812.8	810.5	811.4
17.5°	803.3	802.5	801.7	800.9	800.1	798.7	796.5	794.3	792.1	790.0	790.5
20°	788.3	787.5	786.8	786.0	785.2	783.6	781.3	779.0	776.7	774.4	774.8
22.5°	772.1	771.2	770.2	769.1	768.1	766.4	764.1	761.8	759.5	757.2	758.0
25°	745.9	744.8	743.8	742.7	741.6	740.0	737.8	735.7	733.5	731.4	731.6
27.5°	716.0	714.9	713.7	712.7	711.5	710.0	707.9	706.0	703.9	702.0	701.6
30°	696.0	694.7	693.5	692.2	691.1	689.4	687.4	685.4	683.4	681.4	680.8
32.5°	674.8	673.8	672.6	671.5	670.5	668.8	666.7	664.6	662.5	660.3	659.6
35°	641.9	640.8	639.7	638.6	637.6	635.9	633.7	631.6	629.5	627.3	626.2
37.5°	607.0	606.0	605.0	604.0	603.1	601.5	599.1	596.8	594.5	592.2	591.0
40°	584.2	583.0	581.8	580.6	579.3	577.6	575.2	572.9	570.6	568.3	566.8
42.5°	559.8	559.1	558.4	557.6	556.9	555.2	552.7	550.1	547.5	545.0	543.2
45°	523.9	522.8	521.7	520.7	519.6	517.8	515.3	512.8	510.4	507.9	506.2
47.5°	486.2	485.5	484.8	484.0	483.3	481.8	479.6	477.2	474.9	472.7	470.7
50°	460.7	460.1	459.5	458.9	458.3	456.9	454.8	452.5	450.4	448.3	446.1
52.5°	435.8	435.1	434.3	433.5	432.8	431.3	429.0	426.8	424.5	422.1	420.3
55°	396.2	395.7	395.3	394.8	394.4	393.1	390.9	388.7	386.6	384.4	382.5
57.5°	358.5	357.9	357.4	356.9	356.3	355.1	352.9	350.8	348.7	346.5	344.7
60°	332.3	331.6	330.8	330.0	329.3	327.9	325.9	323.9	321.9	319.9	318.5
62.5°	306.8	306.2	305.5	304.9	304.3	302.8	300.8	298.6	296.5	294.4	293.1
65°	268.5	267.8	267.0	266.3	265.5	264.3	262.8	261.2	259.7	258.2	256.5
67.5°	230.0	229.3	228.5	227.8	227.1	226.0	224.5	223.1	221.6	220.1	218.6
70°	206.1	205.0	203.9	202.9	201.8	200.6	199.4	198.1	196.9	195.6	194.5
72.5°	180.6	179.5	178.4	177.3	176.2	175.2	174.2	173.3	172.3	171.2	170.2
75°	142.9	142.1	141.4	140.6	139.8	139.1	138.3	137.5	136.8	136.0	135.4
77.5°	107.0	106.6	106.3	106.0	105.7	105.1	104.4	103.8	103.1	102.5	102.2
80°	85.3	84.9	84.4	84.0	83.5	83.1	82.8	82.5	82.2	81.9	81.6
82.5°	64.3	64.0	63.8	63.6	63.4	63.2	63.2	63.1	63.0	63.0	62.8
85°	37.5	37.5	37.5	37.5	37.5	37.3	37.0	36.7	36.4	36.1	36.1
87.5°	15.0	15.3	15.6	16.0	16.2	16.5	16.7	16.9	17.1	17.3	17.6
90°	2.7	4.9	7.1	9.4	11.5	13.5	15.1	16.7	18.3	19.9	21.0
92.5°	19.4	21.8	24.4	26.9	29.4	31.3	32.4	33.5	34.7	35.8	36.5
95°	54.2	56.0	57.8	59.7	61.4	63.0	64.5	65.8	67.2	68.7	69.3
97.5°	94.7	96.1	97.6	99.0	100.5	102.0	103.6	105.3	106.9	108.6	109.3
100°	126.4	127.2	128.0	128.9	129.7	131.0	132.8	134.6	136.4	138.2	138.6
102.5°	159.7	160.1	160.3	160.7	161.0	161.9	163.6	165.2	166.9	168.5	169.2
105°	210.4	210.7	210.9	211.1	211.2	211.8	212.6	213.4	214.2	215.0	215.6
107.5°	263.8	264.0	264.2	264.5	264.7	264.9	265.0	265.2	265.3	265.4	266.0
110°	299.9	300.3	300.7	301.1	301.5	301.6	301.4	301.2	301.0	300.8	300.4



TEST NUMBER: P332762-940

CATALOG NUMBER: S124DIW-S575D1050U940-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	337.5	337.6	337.7	337.7	337.8	337.7	337.3	337.0	336.6	336.3	336.2
115°	393.9	393.9	393.9	393.9	393.9	393.7	393.2	392.9	392.4	392.1	391.8
117.5°	447.0	447.1	447.3	447.5	447.6	447.5	447.3	447.0	446.7	446.4	445.8
120°	482.4	483.2	484.0	484.8	485.6	485.7	485.1	484.5	483.9	483.3	482.3
122.5°	519.2	519.6	519.9	520.2	520.5	520.6	520.2	520.0	519.7	519.4	518.7
125°	573.6	573.6	573.6	573.6	573.6	573.5	573.3	573.1	572.9	572.7	572.3
127.5°	622.9	623.6	624.1	624.7	625.4	625.5	625.2	624.8	624.6	624.2	623.8
130°	657.6	658.3	658.8	659.4	660.0	660.3	660.3	660.3	660.3	660.3	660.0
132.5°	693.0	693.5	693.9	694.4	694.8	694.9	694.8	694.6	694.5	694.3	693.9
135°	739.9	741.0	742.3	743.4	744.7	745.3	745.3	745.3	745.3	745.3	744.8
137.5°	790.8	791.3	791.9	792.5	793.0	793.4	793.8	794.2	794.4	794.8	794.2
140°	824.7	825.2	825.5	826.0	826.3	826.5	826.5	826.5	826.5	826.5	826.3
142.5°	855.9	856.2	856.7	857.0	857.5	857.6	857.4	857.2	857.1	856.9	856.8
145°	898.8	899.6	900.4	901.3	902.1	902.5	902.8	902.9	903.1	903.3	903.1
147.5°	941.5	942.4	943.4	944.3	945.3	945.7	945.6	945.4	945.2	945.0	944.9
150°	967.5	968.3	969.1	969.9	970.7	971.1	971.1	971.1	971.1	971.1	971.1
152.5°	992.0	992.6	993.0	993.5	994.0	994.3	994.4	994.6	994.8	995.0	995.4
155°	1029.8	1029.8	1029.8	1029.8	1029.8	1029.7	1029.5	1029.3	1029.1	1028.9	1029.7
157.5°	1061.6	1061.2	1060.9	1060.5	1060.2	1060.0	1059.9	1059.9	1059.8	1059.8	1060.4
160°	1080.4	1080.2	1080.0	1079.8	1079.6	1079.4	1079.1	1079.0	1078.8	1078.6	1079.1
162.5°	1097.7	1097.3	1096.7	1096.2	1095.6	1095.3	1095.1	1094.9	1094.7	1094.5	1095.6
165°	1121.1	1120.4	1119.8	1119.3	1118.7	1118.1	1117.8	1117.3	1117.0	1116.5	1117.8
167.5°	1138.9	1138.1	1137.3	1136.4	1135.6	1135.1	1135.2	1135.2	1135.2	1135.3	1136.5
170°	1149.1	1148.1	1147.0	1146.0	1145.0	1144.6	1144.9	1145.0	1145.2	1145.4	1146.7
172.5°	1156.3	1155.4	1154.6	1153.8	1152.9	1152.5	1152.5	1152.6	1152.6	1152.6	1154.1
175°	1166.2	1165.2	1164.2	1163.2	1162.2	1161.6	1161.4	1161.2	1161.0	1160.8	1162.2
177.5°	1169.5	1168.7	1167.9	1167.1	1166.3	1165.8	1165.8	1165.8	1165.8	1165.8	1167.0
180°	1168.1	1168.1	1168.1	1168.1	1168.1	1168.1	1168.1	1168.1	1168.1	1168.1	1168.1



TEST NUMBER: P332762-940

CATALOG NUMBER: S124DIW-S575D1050U940-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	865.9	865.9	865.9	865.9	865.9	865.9	865.9	865.9
2.5°	862.9	864.2	865.4	865.9	865.8	865.7	865.6	865.4
5°	858.3	860.0	861.7	862.4	862.0	861.7	861.4	861.1
7.5°	848.7	850.1	851.4	852.0	851.9	851.7	851.5	851.2
10°	840.7	842.0	843.2	843.6	843.3	843.0	842.7	842.4
12.5°	831.0	832.3	833.7	834.1	833.7	833.2	832.9	832.4
15°	812.3	813.2	814.1	814.4	814.0	813.5	813.0	812.5
17.5°	791.1	791.7	792.3	792.4	792.1	791.8	791.5	791.2
20°	775.3	775.8	776.2	776.3	776.0	775.7	775.4	775.1
22.5°	758.8	759.6	760.5	760.6	760.1	759.6	759.0	758.4
25°	731.6	731.8	732.0	731.7	731.1	730.5	729.9	729.2
27.5°	701.2	700.8	700.4	699.9	699.1	698.4	697.6	696.8
30°	680.2	679.6	678.9	678.2	677.4	676.7	675.9	675.1
32.5°	658.8	658.1	657.4	656.6	655.9	655.1	654.2	653.5
35°	625.1	624.0	622.9	622.1	621.3	620.5	619.7	618.9
37.5°	589.9	588.6	587.5	586.4	585.4	584.3	583.4	582.3
40°	565.3	563.7	562.1	561.0	560.2	559.5	558.7	557.9
42.5°	541.4	539.6	537.8	536.6	536.2	535.7	535.1	534.6
45°	504.5	502.8	501.1	500.1	499.6	499.2	498.6	498.2
47.5°	468.9	466.9	465.0	463.5	462.4	461.1	459.9	458.8
50°	443.9	441.8	439.6	438.1	437.1	436.2	435.3	434.4
52.5°	418.3	416.4	414.6	413.0	411.8	410.6	409.5	408.3
55°	380.8	378.9	377.0	375.6	374.7	373.8	372.8	371.9
57.5°	343.0	341.3	339.5	338.1	337.2	336.4	335.5	334.6
60°	317.1	315.8	314.3	313.3	312.5	311.7	310.9	310.1
62.5°	291.9	290.5	289.3	288.3	287.5	286.8	286.0	285.2
65°	255.0	253.5	252.0	250.8	250.0	249.2	248.5	247.7
67.5°	217.1	215.7	214.2	213.3	213.1	212.9	212.7	212.5
70°	193.2	192.0	190.7	189.9	189.4	189.0	188.5	188.1
72.5°	169.2	168.3	167.3	166.6	166.1	165.7	165.2	164.7
75°	134.7	134.1	133.6	133.1	133.0	132.9	132.7	132.5
77.5°	102.0	101.8	101.7	101.4	100.9	100.6	100.1	99.8
80°	81.2	81.0	80.6	80.4	80.3	80.1	80.0	79.8
82.5°	62.6	62.4	62.2	62.1	62.0	61.8	61.6	61.4
85°	36.1	36.1	36.1	36.0	35.8	35.7	35.6	35.4
87.5°	17.7	18.0	18.3	18.5	18.5	18.5	18.6	18.7
90°	22.3	23.5	24.7	25.5	25.9	26.3	26.7	27.1
92.5°	37.2	37.9	38.7	39.1	39.4	39.6	39.9	40.1
95°	69.8	70.4	71.1	71.3	71.3	71.3	71.3	71.3
97.5°	110.0	110.8	111.5	111.8	111.8	111.8	111.8	111.8
100°	139.0	139.4	139.8	140.0	140.0	140.0	140.0	140.0
102.5°	169.7	170.2	170.9	171.2	171.3	171.5	171.7	171.8
105°	216.2	216.8	217.4	218.0	218.6	219.2	219.8	220.4
107.5°	266.5	267.1	267.7	267.9	267.9	267.9	267.8	267.8
110°	300.0	299.6	299.2	299.3	299.9	300.5	301.1	301.8



TEST NUMBER: P332762-940

CATALOG NUMBER: S124DIW-S575D1050U940-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	336.1	336.0	335.9	335.9	336.1	336.2	336.3	336.4
115°	391.6	391.5	391.3	391.0	390.8	390.7	390.5	390.2
117.5°	445.1	444.3	443.7	443.2	442.7	442.4	441.9	441.6
120°	481.3	480.3	479.3	478.9	479.4	479.7	480.2	480.5
122.5°	518.1	517.4	516.7	515.9	515.2	514.5	513.8	513.1
125°	571.9	571.5	571.1	570.7	570.3	569.9	569.5	569.1
127.5°	623.4	623.0	622.6	622.2	621.9	621.6	621.3	621.0
130°	659.5	659.2	658.7	658.2	657.4	656.6	655.8	655.0
132.5°	693.5	693.1	692.7	692.3	692.1	691.7	691.3	691.1
135°	744.5	744.0	743.7	743.2	742.5	741.9	741.4	740.7
137.5°	793.7	793.2	792.6	792.5	792.6	792.7	792.8	792.9
140°	826.2	826.0	825.7	825.5	825.4	825.2	824.9	824.7
142.5°	856.8	856.8	856.8	856.7	856.7	856.7	856.6	856.6
145°	902.9	902.8	902.5	902.1	901.5	900.9	900.4	899.7
147.5°	944.8	944.6	944.4	944.2	944.1	943.9	943.6	943.4
150°	971.1	971.1	971.1	971.0	970.8	970.6	970.4	970.2
152.5°	995.9	996.4	996.8	996.8	996.3	995.8	995.2	994.8
155°	1030.6	1031.4	1032.2	1032.2	1031.4	1030.6	1029.7	1028.9
157.5°	1061.0	1061.6	1062.2	1062.2	1061.5	1060.8	1060.2	1059.4
160°	1079.8	1080.4	1081.0	1080.8	1079.8	1078.8	1077.8	1076.7
162.5°	1096.6	1097.7	1098.9	1098.9	1097.9	1096.9	1095.8	1094.8
165°	1118.9	1120.2	1121.3	1121.5	1120.7	1119.9	1119.1	1118.3
167.5°	1137.7	1138.9	1140.1	1140.1	1138.9	1137.6	1136.4	1135.1
170°	1147.8	1149.1	1150.2	1150.1	1148.8	1147.4	1145.9	1144.5
172.5°	1155.4	1156.7	1158.2	1158.1	1156.7	1155.3	1153.9	1152.4
175°	1163.6	1165.0	1166.4	1166.4	1165.0	1163.6	1162.2	1160.8
177.5°	1168.1	1169.2	1170.4	1170.3	1168.9	1167.7	1166.4	1165.1
180°	1168.1	1168.1	1168.1	1168.1	1168.1	1168.1	1168.1	1168.1

(END OF REPORT)