

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: P332766-830

Luminaire Tested: **S124DIW-S575D1340U830-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332766-830
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-S575D1340U830-4F0-1E-UDD-D1
Description: DEFINE 4 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1340 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6622.4 lumens
Efficiency: N/A
Efficacy: 123.1 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

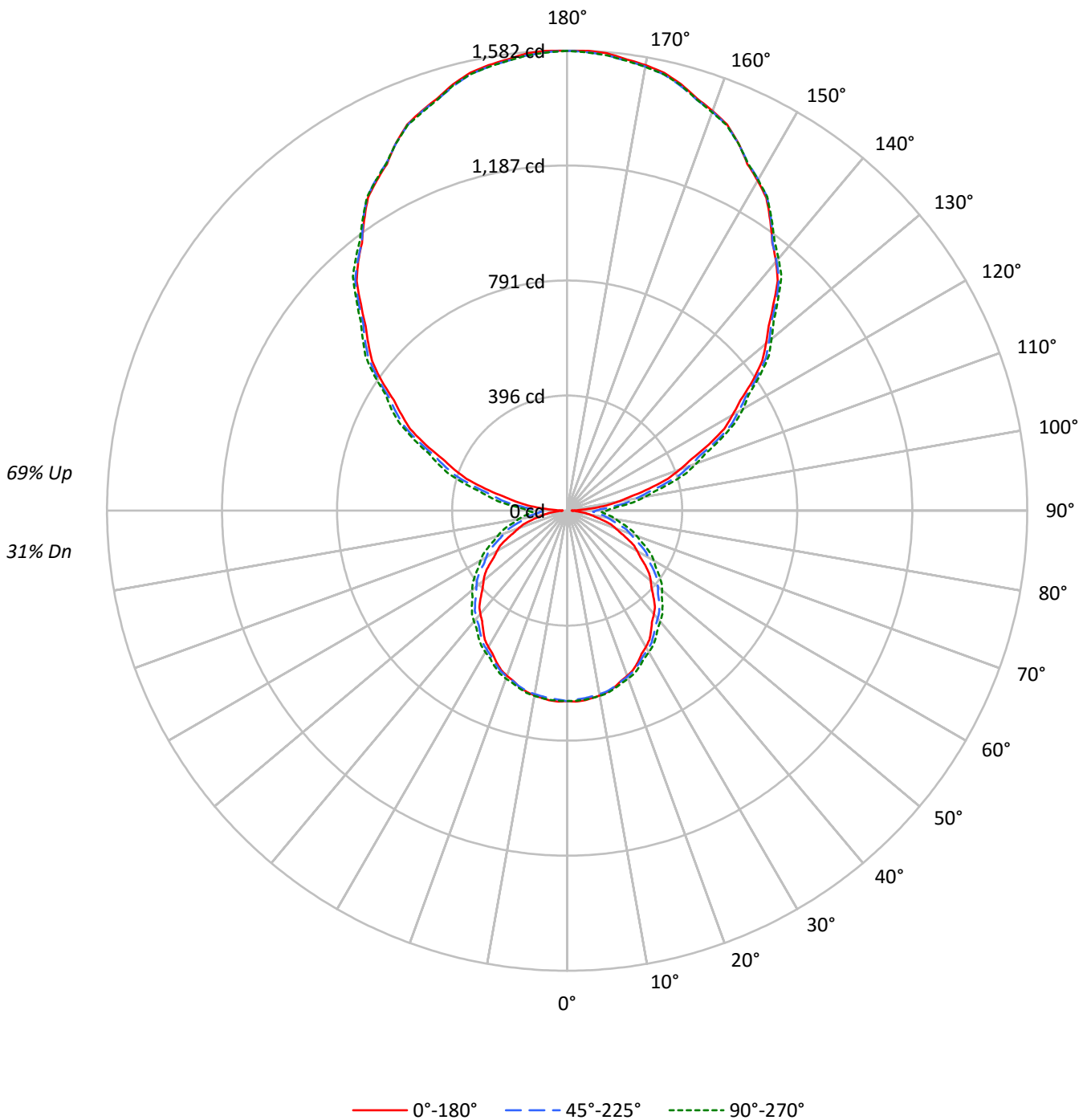
Input Watts (W): 53.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332766-830

CATALOG NUMBER: S124DIW-S575D1340U830-4F0-1E-UDD-D1

Luminous Intensity Polar Plot





TEST NUMBER: P332766-830

CATALOG NUMBER: S124DIW-S575D1340U830-4F0-1E-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	103	103	103	103	92	92	92	92	73	73	73	55	55	55	39	39	39	31
1	93	88	84	81	83	80	76	73	63	60	58	47	46	45	33	32	31	25
2	84	77	71	65	75	69	64	59	55	51	48	41	39	37	29	27	26	20
3	77	67	60	54	69	61	54	49	48	43	40	36	33	31	25	23	22	17
4	70	59	51	45	62	53	47	41	42	37	34	32	29	26	23	20	19	14
5	64	53	45	39	57	47	40	35	38	33	29	29	25	22	20	18	16	12
6	59	47	39	33	53	42	35	30	34	29	25	26	22	19	18	16	14	11
7	54	42	34	29	49	38	31	26	31	25	22	23	20	17	17	14	12	9
8	50	38	31	25	45	35	28	23	28	23	19	21	18	15	15	13	11	8
9	47	35	27	22	42	31	25	21	25	20	17	19	16	13	14	12	10	8
10	43	32	25	20	39	29	22	18	23	18	15	18	14	12	13	11	9	7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5288	5288	5288
5°	5304	5168	5182
10°	5272	5083	5079
15°	5225	4985	4958
20°	5153	4877	4840
25°	5073	4756	4710
30°	4986	4636	4576
35°	4887	4512	4460
40°	4809	4395	4338
45°	4692	4287	4233
50°	4593	4163	4123
55°	4491	4045	3993
60°	4332	3894	3876
65°	4156	3735	3731
70°	3945	3551	3561
75°	3649	3349	3408
80°	3322	3156	3259
85°	2903	2980	3172



TEST NUMBER: P332766-830

CATALOG NUMBER: S124DIW-S575D1340U830-4F0-1E-UDD-D1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.0	0.9
10°-20°	177.7	2.7
20°-30°	268.7	4.1
30°-40°	325.1	4.9
40°-50°	343.7	5.2
50°-60°	323.5	4.9
60°-70°	268.4	4.1
70°-80°	188.5	2.8
80°-90°	111.3	1.7
90°-100°	167.5	2.5
100°-110°	355.7	5.4
110°-120°	555.6	8.4
120°-130°	708.9	10.7
130°-140°	783.8	11.8
140°-150°	764.3	11.5
150°-160°	641.5	9.7
160°-170°	426.8	6.4
170°-180°	149.5	2.3
0°-30°	508.4	7.7
0°-40°	833.5	12.6
0°-60°	1500.7	22.7
0°-90°	2068.9	31.2
90°-120°	1078.8	16.3
90°-150°	3335.8	50.4
90°-180°	4554.0	68.8
0°-180°	6622.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	655	655	655	655	655	
5°	656	653	648	654	654	62
15°	629	629	627	633	633	177
25°	575	579	582	589	590	265
35°	503	512	519	529	532	315
45°	420	433	447	459	464	324
55°	329	344	366	380	385	293
65°	227	251	276	293	300	225
75°	126	153	184	204	211	134
85°	39	70	103	124	132	41
90°	15	58	100	127	136	12
95°	83	118	157	179	187	89
105°	291	308	339	361	371	310
115°	537	545	565	579	584	530
125°	779	779	796	806	809	694
135°	1003	1010	1015	1024	1025	776
145°	1217	1221	1222	1225	1225	761
155°	1394	1393	1392	1397	1392	641
165°	1517	1513	1511	1518	1513	427
175°	1578	1572	1571	1578	1571	150
180°	1580	1580	1580	1580	1580	



TEST NUMBER: P332766-830

CATALOG NUMBER: S124DIW-S575D1340U830-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0
2.5°	657.3	657.0	656.6	656.1	655.7	655.1	654.0	653.0	651.9	650.8	651.8
5°	655.7	655.3	654.7	654.2	653.7	652.9	651.8	650.6	649.5	648.4	649.7
7.5°	650.2	649.8	649.5	649.2	648.9	648.4	647.4	646.5	645.5	644.5	646.0
10°	645.5	645.3	645.1	645.0	644.8	644.3	643.5	642.6	641.9	641.0	642.5
12.5°	638.9	638.9	638.9	638.9	638.9	638.6	638.0	637.4	636.9	636.3	637.6
15°	628.6	628.8	628.9	629.1	629.2	629.1	628.6	628.1	627.5	627.1	628.6
17.5°	614.3	614.8	615.3	615.8	616.3	616.5	616.4	616.3	616.2	616.1	617.6
20°	604.4	604.8	605.3	605.9	606.3	606.6	606.8	607.0	607.1	607.3	608.9
22.5°	593.2	593.8	594.5	595.0	595.7	596.2	596.4	596.7	597.0	597.3	599.0
25°	575.0	576.0	577.0	578.0	578.9	579.7	580.1	580.6	581.2	581.6	583.4
27.5°	554.8	556.2	557.6	559.1	560.5	561.6	562.3	563.1	563.8	564.6	566.3
30°	541.3	542.6	543.8	545.2	546.5	547.7	548.8	550.0	551.1	552.3	554.1
32.5°	526.6	528.2	529.7	531.3	532.9	534.3	535.6	536.9	538.1	539.4	541.4
35°	503.1	505.1	507.1	509.0	511.0	512.7	514.3	516.0	517.6	519.2	521.6
37.5°	479.6	481.7	484.0	486.3	488.5	490.7	492.7	494.7	496.7	498.7	501.1
40°	464.3	466.4	468.5	470.6	472.8	474.9	477.2	479.5	481.8	484.1	486.5
42.5°	446.7	449.0	451.4	453.8	456.2	458.7	461.4	464.0	466.7	469.4	472.1
45°	419.5	422.6	425.7	428.9	431.9	435.0	438.1	441.2	444.3	447.4	450.2
47.5°	393.6	396.7	399.9	403.1	406.3	409.7	413.3	416.9	420.5	424.0	427.0
50°	374.8	378.3	381.9	385.6	389.2	392.8	396.3	399.9	403.5	407.1	410.3
52.5°	356.0	359.6	363.2	366.7	370.3	374.2	378.3	382.4	386.5	390.6	393.9
55°	328.6	332.0	335.5	338.8	342.2	346.4	351.3	356.2	361.1	366.0	369.3
57.5°	297.9	302.2	306.4	310.7	314.9	319.4	324.2	329.1	334.0	338.8	342.7
60°	278.0	282.2	286.4	290.7	294.9	299.7	305.1	310.5	315.8	321.2	325.0
62.5°	258.6	263.3	267.9	272.5	277.1	282.1	287.5	292.8	298.3	303.7	307.4
65°	227.3	232.6	237.8	243.0	248.3	253.6	259.1	264.7	270.2	275.8	279.8
67.5°	197.3	202.8	208.4	214.0	219.4	225.2	231.1	237.0	243.0	248.9	253.1
70°	176.7	182.3	187.8	193.4	199.0	204.8	210.9	217.2	223.4	229.6	233.9
72.5°	156.8	162.5	168.1	173.8	179.5	185.6	192.2	198.8	205.4	212.0	216.2
75°	126.1	132.1	138.2	144.2	150.2	156.7	163.5	170.4	177.3	184.1	188.7
77.5°	97.6	104.0	110.4	116.7	123.1	129.9	137.0	144.2	151.4	158.5	163.2
80°	79.9	86.4	93.0	99.5	106.0	112.8	120.1	127.2	134.4	141.6	146.5
82.5°	62.3	69.1	75.9	82.7	89.4	96.4	103.6	110.7	117.9	125.2	130.2
85°	38.8	45.7	52.6	59.4	66.3	73.3	80.7	88.0	95.4	102.6	107.5
87.5°	22.4	29.7	36.9	44.2	51.5	58.8	66.4	74.0	81.5	89.2	94.2
90°	15.4	24.9	34.4	43.9	53.4	62.8	71.9	81.2	90.3	99.5	105.8
92.5°	37.3	46.6	55.9	65.2	74.5	83.4	91.9	100.5	109.0	117.5	123.1
95°	82.8	90.7	98.5	106.3	114.1	122.3	130.9	139.5	148.2	156.7	161.9
97.5°	136.8	143.4	150.0	156.6	163.1	170.8	179.6	188.5	197.4	206.2	211.4
100°	179.2	184.5	189.8	195.2	200.5	207.5	216.3	225.2	233.9	242.8	247.7
102.5°	224.1	228.4	232.5	236.7	240.8	247.1	255.5	264.0	272.5	280.9	286.0
105°	291.4	294.9	298.5	302.0	305.6	310.9	318.0	325.1	332.2	339.3	344.2
107.5°	363.4	366.4	369.4	372.4	375.4	379.8	385.7	391.5	397.4	403.3	408.0
110°	411.7	414.5	417.4	420.2	423.0	427.2	432.5	438.0	443.5	448.8	452.0



TEST NUMBER: P332766-830

CATALOG NUMBER: S124DIW-S575D1340U830-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	461.9	464.1	466.2	468.3	470.5	474.0	479.0	483.9	488.9	493.8	497.4
115°	537.3	538.9	540.3	541.8	543.2	546.3	550.9	555.6	560.3	565.0	568.3
117.5°	609.1	610.2	611.2	612.4	613.5	616.2	620.8	625.2	629.7	634.1	636.6
120°	656.4	658.0	659.6	661.1	662.7	665.4	669.4	673.3	677.2	681.1	683.0
122.5°	706.2	706.8	707.4	707.8	708.4	710.7	714.8	718.9	723.0	727.1	729.4
125°	779.1	779.0	778.8	778.6	778.4	780.3	784.1	787.9	791.7	795.5	798.1
127.5°	845.7	846.4	847.1	847.7	848.4	850.0	852.7	855.4	858.1	860.8	863.2
130°	892.1	892.8	893.3	894.0	894.7	896.4	898.9	901.5	904.2	906.7	909.2
132.5°	940.0	940.5	940.8	941.3	941.7	942.9	944.8	946.6	948.5	950.4	952.6
135°	1002.6	1004.2	1005.9	1007.5	1009.1	1010.5	1011.6	1012.8	1013.9	1015.0	1017.1
137.5°	1071.5	1072.1	1072.7	1073.4	1073.9	1074.7	1075.7	1076.7	1077.7	1078.6	1080.3
140°	1117.5	1117.9	1118.2	1118.6	1119.0	1119.3	1119.5	1119.6	1119.7	1119.9	1121.8
142.5°	1159.0	1159.4	1160.0	1160.5	1161.0	1161.1	1160.7	1160.5	1160.2	1159.8	1161.6
145°	1217.0	1218.0	1218.8	1219.7	1220.7	1221.3	1221.5	1221.8	1222.1	1222.4	1223.0
147.5°	1274.7	1275.8	1277.0	1278.1	1279.2	1279.7	1279.5	1279.3	1279.0	1278.8	1278.7
150°	1309.9	1310.8	1311.7	1312.7	1313.6	1314.0	1314.0	1314.0	1314.0	1314.0	1314.0
152.5°	1342.6	1343.2	1343.8	1344.4	1345.0	1345.5	1345.7	1345.9	1346.1	1346.3	1347.0
155°	1393.5	1393.5	1393.5	1393.5	1393.5	1393.4	1393.1	1392.8	1392.5	1392.3	1393.4
157.5°	1436.5	1436.1	1435.6	1435.0	1434.5	1434.3	1434.3	1434.2	1434.2	1434.1	1434.9
160°	1462.0	1461.7	1461.4	1461.1	1460.8	1460.6	1460.3	1460.1	1459.8	1459.5	1460.3
162.5°	1485.4	1484.7	1484.0	1483.3	1482.6	1482.1	1481.9	1481.6	1481.3	1481.0	1482.5
165°	1516.9	1516.2	1515.3	1514.5	1513.7	1513.1	1512.5	1511.9	1511.4	1510.8	1512.5
167.5°	1541.2	1540.0	1538.9	1537.8	1536.6	1536.1	1536.2	1536.2	1536.3	1536.3	1537.9
170°	1554.8	1553.5	1552.2	1550.8	1549.4	1548.9	1549.2	1549.4	1549.7	1549.9	1551.6
172.5°	1564.6	1563.5	1562.4	1561.2	1560.1	1559.5	1559.6	1559.6	1559.7	1559.7	1561.6
175°	1578.1	1576.7	1575.4	1574.0	1572.6	1571.8	1571.6	1571.3	1571.0	1570.7	1572.6
177.5°	1582.4	1581.4	1580.3	1579.2	1578.1	1577.6	1577.6	1577.6	1577.6	1577.6	1579.1
180°	1580.5	1580.5	1580.5	1580.5	1580.5	1580.5	1580.5	1580.5	1580.5	1580.5	1580.5



TEST NUMBER: P332766-830

CATALOG NUMBER: S124DIW-S575D1340U830-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0
2.5°	652.7	653.6	654.5	654.9	654.8	654.6	654.5	654.4
5°	651.0	652.2	653.6	654.1	654.0	653.8	653.7	653.5
7.5°	647.5	648.9	650.4	651.1	650.9	650.7	650.5	650.4
10°	643.9	645.5	646.9	647.5	647.4	647.2	647.1	646.9
12.5°	639.0	640.4	641.7	642.3	642.3	642.2	642.2	642.2
15°	630.0	631.5	632.9	633.6	633.5	633.3	633.1	632.9
17.5°	619.1	620.6	622.1	622.7	622.6	622.5	622.4	622.3
20°	610.6	612.2	613.8	614.6	614.6	614.6	614.6	614.6
22.5°	600.6	602.2	603.8	604.8	605.0	605.3	605.6	605.9
25°	585.2	587.0	588.8	589.7	589.9	590.1	590.2	590.4
27.5°	568.0	569.6	571.3	572.2	572.4	572.6	572.8	573.0
30°	555.9	557.7	559.5	560.5	560.8	561.2	561.5	561.8
32.5°	543.5	545.5	547.6	548.7	549.1	549.4	549.8	550.1
35°	523.9	526.1	528.4	529.8	530.3	530.7	531.2	531.8
37.5°	503.4	505.7	508.0	509.4	509.9	510.5	511.0	511.5
40°	489.0	491.4	493.9	495.4	496.1	496.7	497.4	498.0
42.5°	474.9	477.5	480.2	481.8	482.4	482.9	483.4	483.9
45°	453.0	455.7	458.5	460.2	461.1	461.9	462.7	463.5
47.5°	429.8	432.7	435.5	437.4	438.5	439.4	440.5	441.4
50°	413.6	416.9	420.1	422.3	423.2	424.1	425.2	426.1
52.5°	397.2	400.4	403.7	405.8	406.8	407.7	408.7	409.7
55°	372.5	375.8	379.0	381.2	382.1	383.1	384.1	385.0
57.5°	346.6	350.5	354.4	356.8	357.7	358.5	359.5	360.4
60°	328.8	332.5	336.2	338.7	340.1	341.4	342.7	344.0
62.5°	311.1	314.9	318.7	321.1	322.4	323.8	325.1	326.4
65°	283.9	288.0	292.1	294.7	296.1	297.4	298.7	300.0
67.5°	257.2	261.4	265.5	268.2	269.5	270.7	272.0	273.2
70°	238.4	242.8	247.1	250.0	251.1	252.2	253.4	254.5
72.5°	220.5	224.8	229.0	231.8	233.1	234.3	235.6	236.9
75°	193.2	197.7	202.4	205.4	206.8	208.3	209.8	211.2
77.5°	167.9	172.5	177.1	180.2	181.7	183.3	184.8	186.4
80°	151.4	156.2	161.1	164.2	165.5	166.8	168.1	169.5
82.5°	135.2	140.2	145.2	148.5	149.9	151.3	152.7	154.2
85°	112.4	117.3	122.2	125.5	127.1	128.8	130.4	132.1
87.5°	99.2	104.3	109.3	112.6	114.2	115.7	117.3	118.9
90°	112.3	118.6	124.9	129.0	130.9	132.7	134.6	136.4
92.5°	128.7	134.2	139.8	143.4	145.1	146.7	148.3	150.0
95°	167.1	172.4	177.6	180.9	182.4	183.9	185.3	186.8
97.5°	216.7	222.0	227.2	230.5	231.9	233.3	234.7	236.1
100°	252.7	257.6	262.5	265.6	266.7	267.9	269.0	270.1
102.5°	291.0	296.0	301.0	304.3	305.8	307.3	308.8	310.3
105°	349.1	354.0	358.9	362.4	364.5	366.6	368.7	370.9
107.5°	412.8	417.6	422.4	425.3	426.4	427.5	428.7	429.8
110°	455.2	458.5	461.7	464.3	466.5	468.5	470.7	472.8



TEST NUMBER: P332766-830

CATALOG NUMBER: S124DIW-S575D1340U830-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	500.9	504.4	507.8	510.4	511.8	513.3	514.7	516.2
115°	571.7	575.0	578.2	580.3	581.2	582.0	583.0	583.8
117.5°	639.1	641.6	644.0	645.6	646.4	647.1	647.9	648.7
120°	684.9	686.8	688.7	690.6	692.4	694.3	696.2	698.0
122.5°	731.7	734.1	736.4	737.6	737.9	738.1	738.3	738.5
125°	800.6	803.1	805.7	807.2	807.7	808.1	808.5	809.0
127.5°	865.5	868.0	870.3	871.9	872.6	873.3	873.9	874.6
130°	911.5	913.9	916.3	917.5	917.4	917.3	917.1	917.0
132.5°	954.9	957.2	959.4	960.8	961.4	961.9	962.4	963.0
135°	1019.2	1021.2	1023.3	1024.4	1024.5	1024.7	1024.9	1025.1
137.5°	1082.0	1083.6	1085.3	1086.7	1087.7	1088.6	1089.6	1090.6
140°	1123.6	1125.5	1127.3	1128.5	1129.1	1129.6	1130.1	1130.7
142.5°	1163.5	1165.3	1167.1	1168.3	1168.8	1169.5	1170.2	1170.8
145°	1223.8	1224.5	1225.2	1225.5	1225.3	1225.1	1225.0	1224.8
147.5°	1278.7	1278.6	1278.5	1278.6	1278.8	1279.0	1279.3	1279.6
150°	1314.0	1314.0	1314.0	1313.9	1313.6	1313.3	1313.1	1312.9
152.5°	1347.6	1348.3	1349.0	1348.9	1348.2	1347.5	1346.8	1346.0
155°	1394.5	1395.5	1396.7	1396.7	1395.5	1394.5	1393.4	1392.3
157.5°	1435.7	1436.5	1437.4	1437.3	1436.3	1435.4	1434.5	1433.6
160°	1461.1	1462.0	1462.7	1462.4	1461.1	1459.8	1458.4	1457.1
162.5°	1483.9	1485.4	1486.9	1487.0	1485.5	1484.2	1482.9	1481.5
165°	1514.1	1515.7	1517.4	1517.7	1516.6	1515.4	1514.4	1513.3
167.5°	1539.5	1541.2	1542.8	1542.8	1541.1	1539.4	1537.8	1536.1
170°	1553.2	1554.8	1556.5	1556.3	1554.4	1552.6	1550.7	1548.8
172.5°	1563.4	1565.3	1567.2	1567.1	1565.2	1563.3	1561.4	1559.5
175°	1574.5	1576.4	1578.4	1578.4	1576.4	1574.5	1572.6	1570.7
177.5°	1580.6	1582.2	1583.7	1583.6	1581.9	1580.1	1578.4	1576.6
180°	1580.5	1580.5	1580.5	1580.5	1580.5	1580.5	1580.5	1580.5

(END OF REPORT)