

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: P334474

Luminaire Tested: **S122IP-S1080U940-4F0-1E-UDD-4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334474
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-16)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S122IP-S1080U940-4F0-1E-UDD-4
Description: DEFINE 2 INDIRECT LED LUMINAIRE, BATWING OPTIC
PENDANT MOUNT, 1080 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3754.7 lumens
Efficiency: N/A
Efficacy: 89.6 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Indirect

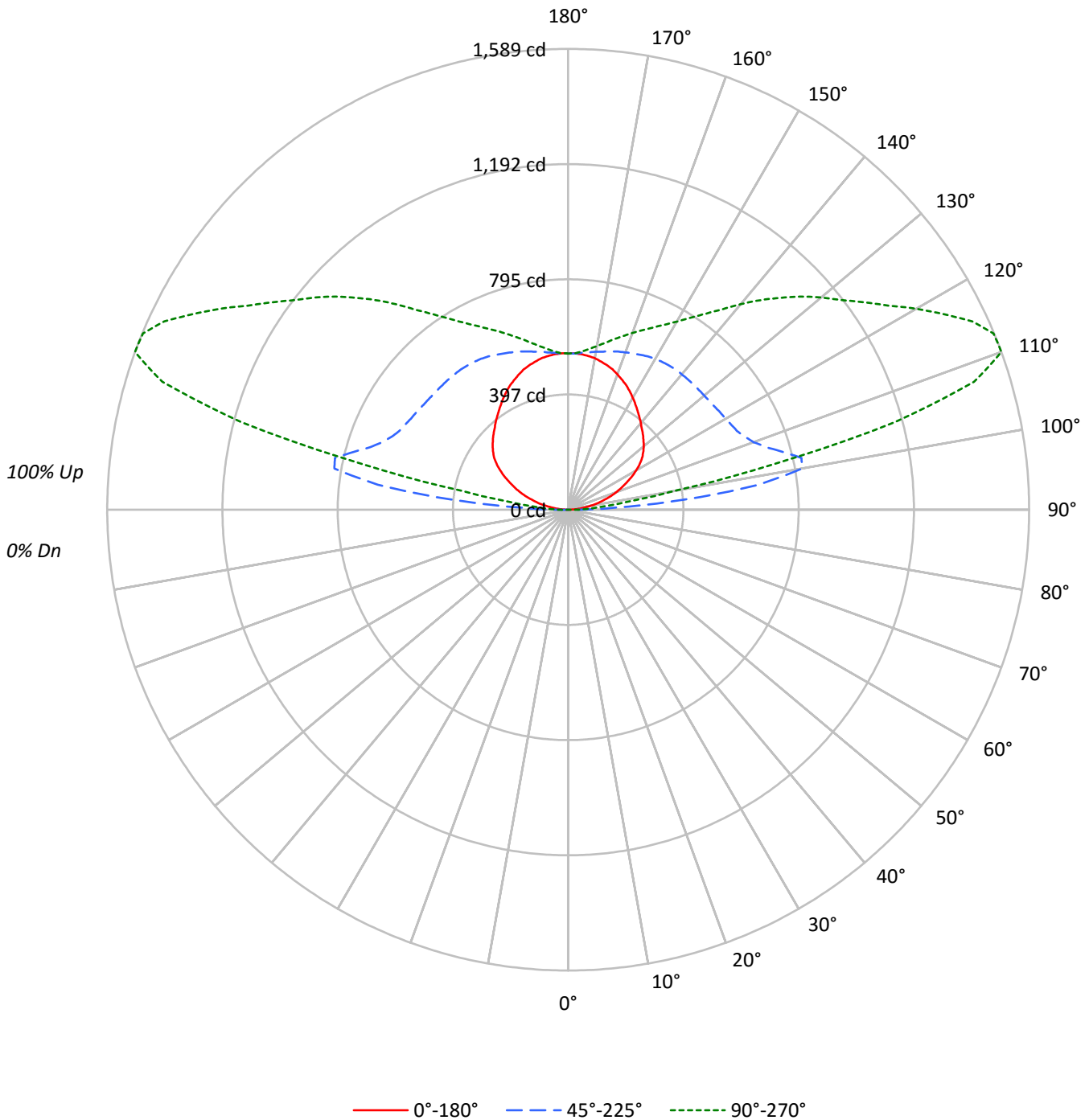
Input Watts (W): 41.9
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P334474

CATALOG NUMBER: S122IP-S1080U940-4F0-1E-UDD-4

Luminous Intensity Polar Plot





TEST NUMBER: P334474

CATALOG NUMBER: S122IP-S1080U940-4F0-1E-UDD-4

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	95	95	95	95	81	81	81	81	56	56	56	32	32	32	10	10	10	0
1	87	83	79	76	74	71	68	65	48	47	45	28	27	26	9	9	8	0
2	79	72	66	62	67	62	57	53	42	40	37	24	23	22	8	7	7	0
3	72	63	56	51	61	54	49	44	37	34	31	21	20	18	7	6	6	0
4	65	56	48	43	56	48	42	37	33	29	26	19	17	16	6	6	5	0
5	60	49	42	36	51	42	36	32	29	25	22	17	15	13	5	5	4	0
6	55	44	36	31	47	38	32	27	26	22	19	15	13	11	5	4	4	0
7	50	39	32	27	43	34	28	23	23	19	17	14	11	10	4	4	3	0
8	47	35	28	23	40	30	24	20	21	17	14	12	10	9	4	3	3	0
9	43	32	25	20	37	27	22	18	19	15	13	11	9	8	4	3	3	0
10	40	29	22	18	34	25	19	16	17	14	11	10	8	7	3	3	2	0

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	0	0	0
5°	0	0	0
10°	0	0	0
15°	0	0	0
20°	0	0	0
25°	0	0	0
30°	0	0	0
35°	0	0	0
40°	0	0	0
45°	0	0	0
50°	0	0	0
55°	0	0	0
60°	0	0	0
65°	0	0	0
70°	0	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



TEST NUMBER: P334474

CATALOG NUMBER: S122IP-S1080U940-4F0-1E-UDD-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.0	0.0
10°-20°	0.0	0.0
20°-30°	0.0	0.0
30°-40°	0.0	0.0
40°-50°	0.0	0.0
50°-60°	0.0	0.0
60°-70°	0.0	0.0
70°-80°	0.0	0.0
80°-90°	3.5	0.1
90°-100°	210.0	5.6
100°-110°	739.5	19.7
110°-120°	776.6	20.7
120°-130°	638.9	17.0
130°-140°	513.3	13.7
140°-150°	387.7	10.3
150°-160°	272.6	7.3
160°-170°	160.4	4.3
170°-180°	52.2	1.4
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	3.5	0.1
90°-120°	1726.1	46.0
90°-150°	3266.0	87.0
90°-180°	3751.0	99.9
0°-180°	3754.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	0	0	0	0	0	
5°	0	0	0	0	0	0
15°	0	0	0	0	0	0
25°	0	0	0	0	0	0
35°	0	0	0	0	0	0
45°	0	0	0	0	0	0
55°	0	0	0	0	0	0
65°	0	0	0	0	0	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	1	14	35	34	34	2
95°	36	89	406	153	118	37
105°	126	191	768	1372	1167	134
115°	223	281	642	1325	1536	221
125°	311	368	617	1074	1246	276
135°	365	435	610	902	1033	282
145°	416	479	607	754	825	261
155°	473	511	589	667	693	218
165°	516	531	565	599	608	146
175°	538	538	543	550	548	51
180°	539	539	539	539	539	



TEST NUMBER: P334474

CATALOG NUMBER: S122IP-S1080U940-4F0-1E-UDD-4

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
37.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
47.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
52.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
57.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
60°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	1.0	4.1	8.3	10.4	12.4	15.5	20.7	28.0	34.2	35.2	34.2
92.5°	15.5	21.8	30.0	35.2	43.5	54.9	82.9	122.2	157.5	159.5	133.6
95°	36.3	40.4	50.8	60.1	76.7	101.5	149.2	239.3	359.4	406.1	355.3
97.5°	53.9	60.1	71.5	84.9	103.6	131.6	192.7	318.0	511.7	661.9	667.1
100°	79.8	82.9	92.2	108.8	129.5	158.5	213.4	339.8	563.5	818.3	967.5
102.5°	103.6	105.7	115.0	131.6	153.3	182.3	232.0	340.8	543.8	823.5	1079.4
105°	126.4	130.5	137.8	153.3	176.1	205.1	253.8	346.0	516.9	767.6	1043.1
107.5°	151.2	154.3	161.6	176.1	198.9	227.9	275.5	357.4	502.4	715.8	966.5
110°	176.1	180.2	186.5	199.9	221.7	251.7	297.3	371.9	498.3	680.6	895.0



TEST NUMBER: P334474

CATALOG NUMBER: S122IP-S1080U940-4F0-1E-UDD-4

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	198.9	203.0	210.3	222.7	243.4	274.5	318.0	387.4	499.3	657.8	845.3
115°	222.7	227.9	234.1	246.5	267.3	295.2	339.8	403.0	503.4	642.2	805.9
117.5°	247.6	251.7	257.9	269.3	289.0	318.0	359.4	419.5	509.7	634.0	779.0
120°	270.4	274.5	280.7	290.0	310.8	339.8	380.2	436.1	515.9	626.7	758.3
122.5°	292.1	295.2	301.4	311.8	332.5	362.6	399.8	450.6	523.1	622.6	740.7
125°	310.8	313.9	320.1	332.5	353.2	382.2	419.5	466.1	530.4	617.4	724.1
127.5°	326.3	330.4	338.7	352.2	371.9	401.9	438.2	480.6	537.6	614.3	708.5
130°	339.8	343.9	354.3	368.8	389.5	418.5	454.7	494.1	545.9	612.2	693.0
132.5°	352.2	357.4	368.8	384.3	406.1	435.1	469.3	507.6	554.2	611.2	680.6
135°	364.6	368.8	381.2	396.7	420.6	449.6	482.7	519.0	560.4	610.1	669.2
137.5°	376.0	381.2	393.6	410.2	434.0	461.0	494.1	528.3	566.6	610.1	660.9
140°	389.5	393.6	406.1	422.6	445.4	472.4	503.4	535.5	570.8	609.1	653.6
142.5°	403.0	406.1	417.5	434.0	455.8	480.6	510.7	541.8	573.9	609.1	646.4
145°	416.4	420.6	430.9	446.5	467.2	490.0	517.9	546.9	575.9	607.0	640.2
147.5°	430.9	434.0	444.4	458.9	476.5	497.2	524.2	550.0	577.0	603.9	634.0
150°	445.4	448.5	456.8	470.3	485.8	504.5	528.3	552.1	575.9	600.8	625.7
152.5°	459.9	461.0	469.3	480.6	495.1	511.7	532.4	553.2	573.9	595.6	618.4
155°	473.4	474.4	480.6	492.0	503.4	519.0	536.6	554.2	571.8	589.4	609.1
157.5°	484.8	485.8	491.0	501.4	510.7	524.2	539.7	554.2	567.7	583.2	600.8
160°	496.2	497.2	501.4	509.7	517.9	529.3	541.8	554.2	564.6	577.0	591.5
162.5°	507.6	506.5	510.7	516.9	524.2	532.4	542.8	553.2	561.4	571.8	583.2
165°	515.9	514.8	516.9	523.1	528.3	534.5	543.8	551.1	557.3	564.6	573.9
167.5°	523.1	522.1	524.2	528.3	532.4	536.6	543.8	550.0	553.2	558.3	564.6
170°	530.4	528.3	529.3	532.4	534.5	537.6	542.8	548.0	550.0	553.2	557.3
172.5°	534.5	533.5	532.4	535.5	536.6	538.7	541.8	544.9	545.9	546.9	550.0
175°	537.6	536.6	535.5	537.6	537.6	538.7	540.7	542.8	541.8	542.8	543.8
177.5°	539.7	537.6	536.6	538.7	538.7	538.7	539.7	541.8	539.7	538.7	539.7
180°	538.7	538.7	538.7	538.7	538.7	538.7	538.7	538.7	538.7	538.7	538.7



TEST NUMBER: P334474

CATALOG NUMBER: S122IP-S1080U940-4F0-1E-UDD-4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
37.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
47.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
52.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
57.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
60°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	33.1	31.1	33.1	34.2	34.2	34.2	34.2	34.2
92.5°	104.6	89.1	77.7	69.4	68.4	64.2	65.3	63.2
95°	271.4	208.2	164.7	141.9	128.4	120.2	117.1	118.1
97.5°	555.2	443.4	338.7	276.6	236.2	215.5	204.1	197.9
100°	945.8	817.3	675.4	550.0	464.1	419.5	389.5	370.8
102.5°	1201.6	1197.5	1103.2	968.5	873.2	789.3	750.0	723.0
105°	1258.6	1375.6	1389.1	1354.9	1290.7	1226.5	1181.9	1167.4
107.5°	1197.5	1371.5	1473.0	1514.4	1513.4	1504.1	1490.6	1466.8
110°	1113.6	1299.0	1431.6	1516.5	1561.1	1580.7	1590.1	1589.0



TEST NUMBER: P334474

CATALOG NUMBER: S122IP-S1080U940-4F0-1E-UDD-4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	1036.9	1213.0	1357.0	1457.5	1523.8	1560.0	1579.7	1587.0
115°	976.8	1136.4	1272.1	1378.7	1452.3	1499.9	1526.9	1536.2
117.5°	927.1	1070.1	1196.4	1298.0	1373.6	1424.3	1452.3	1459.5
120°	891.9	1020.3	1130.1	1224.4	1296.9	1345.6	1375.6	1386.0
122.5°	863.9	978.9	1081.5	1164.3	1227.5	1275.2	1301.1	1309.3
125°	837.0	943.7	1034.8	1112.5	1172.6	1212.0	1237.9	1246.2
127.5°	810.1	908.5	995.5	1068.0	1120.8	1158.1	1180.9	1187.1
130°	784.2	873.2	955.1	1023.4	1074.2	1109.4	1130.1	1138.4
132.5°	759.3	840.1	913.6	976.8	1026.6	1061.8	1080.4	1087.7
135°	736.5	804.9	873.2	931.3	975.8	1010.0	1028.6	1032.8
137.5°	717.9	776.9	832.8	884.6	927.1	957.1	973.7	979.9
140°	700.3	750.0	797.6	843.2	876.4	903.3	918.8	925.0
142.5°	685.7	726.1	765.5	801.8	832.8	856.7	870.1	870.1
145°	672.3	706.5	738.6	768.6	793.5	811.1	821.4	824.6
147.5°	661.9	689.9	715.8	738.6	760.3	774.8	782.1	784.2
150°	650.5	673.3	695.1	713.7	729.3	741.7	747.9	748.9
152.5°	639.1	659.9	677.5	693.0	704.4	714.8	718.9	718.9
155°	628.8	645.4	660.9	672.3	683.7	690.9	695.1	693.0
157.5°	616.3	630.8	644.3	653.6	661.9	668.1	670.2	670.2
160°	605.0	616.3	627.7	635.0	642.2	647.4	648.5	648.5
162.5°	593.6	602.9	612.2	617.4	624.6	627.7	628.8	627.7
165°	582.2	589.4	596.7	600.8	605.0	609.1	609.1	608.1
167.5°	570.8	577.0	582.2	586.3	588.4	590.4	590.4	589.4
170°	562.5	565.6	569.7	571.8	572.8	575.9	574.9	572.8
172.5°	553.2	555.2	558.3	559.4	560.4	561.4	560.4	559.4
175°	546.9	548.0	549.0	550.0	550.0	551.1	550.0	548.0
177.5°	541.8	541.8	542.8	542.8	542.8	542.8	541.8	539.7
180°	538.7	538.7	538.7	538.7	538.7	538.7	538.7	538.7

(END OF REPORT)