

LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: STREETWORKS

Report Number: P599105

Luminaire Tested: **IFLD-L-SA8A-830-U-SLL**

Issue Date: 05/03/2022

Tested By:

Approved By:



Cooper Lighting Solutions laboratories have been accredited by National Voluntary Laboratory Accreditation Program (NVLAP) that it adheres to the requirements of ISO/IEC 17025:2005 and appropriate IESNA test methods. This report must not be used to claim product certification, approval or endorsement by NVLAP, NIST or any agency of the Federal Government. Results contained in this report are valid for luminaire sample tested, as supplied by requestor. Information related to the luminaire tested has been supplied by requestor and can affect the validity of the test results. Report shall not be reproduced except in full without approval of Cooper Lighting Solutions Lighting Laboratory. Test performed at address noted above.

Test Information

Test Method: LM-79-08
 Report Number: P599105
 Test Lab: INNOVATION CENTER(G1)
 Issue Date: 05/03/2022
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
 Product Line: STREETWORKS
 Catalog Number: IFLD-L-SA8A-830-U-SLL
 Description: Infrastructure Flood – Middle Tier Light Square Luminaire w/ SLL distribution lens
 Light Source: (128) 3000K CCT, 80 CRI LEDS
 Ballast/Driver: ELECTRONIC DRIVER

Summary

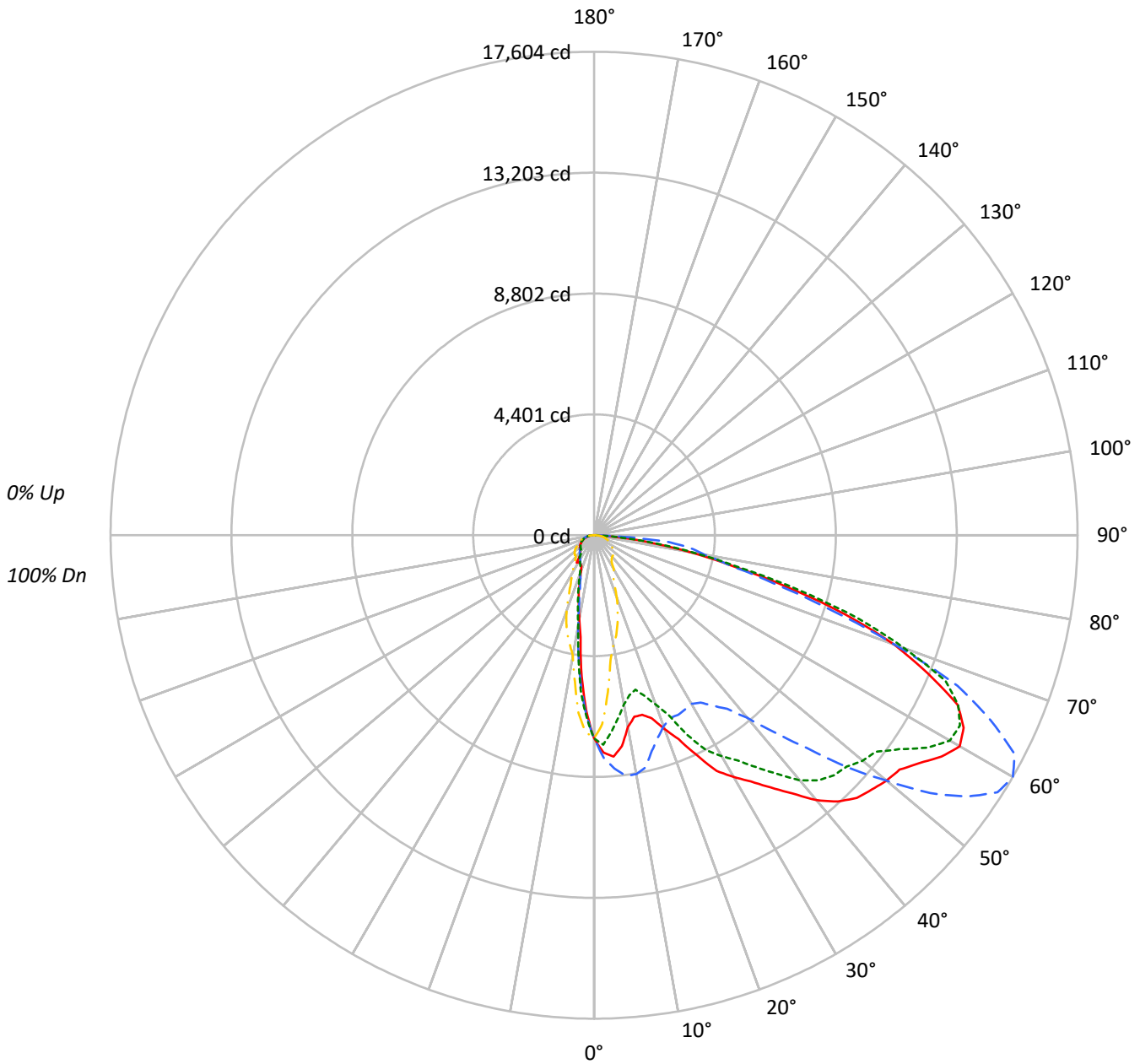
Lumens per Lamp: N/A
 Luminaire Lumens: 23153.4 lumens
 Efficiency: N/A
 Efficacy: 93.4 lumens/watt
 Spacing Criteria (0/90/45): 1.12 / 0.52 / 0.8
 Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
 CIE Type: Direct

Input Watts (W): 247.8
 Input Voltage (V): 120
 Input Current (Ain): 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

Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	GONIO 1 IN0055	4/22/2021	10/22/2021
Power Meter	XITRON 2801 IN0197	12/1/2020	12/1/2021
AC Power Source	CHROMA 61505 IN0196	12/1/2020	12/1/2021
DC Power Supply	AGILENT E3634A IN0198	11/30/2020	11/30/2021
Room Thermometer	ONSET IN0143	12/1/2020	12/1/2021

TEST NUMBER: P599105
CATALOG NUMBER: IFLD-L-SA8A-830-U-SLL

Luminous Intensity Polar Plot



— 0°-180° - - 45°-225° ··· 90°-270° - · 135°-315°

TEST NUMBER: P599105
 CATALOG NUMBER: IFLD-L-SA8A-830-U-SLL

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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				
1	106	100	94	89	103	97	92	88	93	89	85	89	85	82	85	82	80	77				
2	94	83	75	68	91	81	74	67	78	71	65	74	69	64	71	66	62	60				
3	84	71	61	53	81	69	60	53	66	58	52	63	56	51	60	55	50	47				
4	75	61	51	43	73	60	50	42	57	48	42	54	47	41	52	46	40	38				
5	68	53	43	35	66	52	42	35	50	41	34	48	40	34	46	39	34	31				
6	63	47	37	30	60	46	37	29	44	36	29	42	35	29	41	34	29	26				
7	58	42	32	25	56	41	32	25	40	31	25	38	31	25	37	30	25	22				
8	53	38	29	22	52	37	28	22	36	28	22	35	27	22	33	27	22	19				
9	50	35	26	20	48	34	26	20	33	25	19	32	25	19	31	24	19	17				
10	46	32	23	18	45	31	23	18	30	23	17	29	22	17	28	22	17	15				

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	39800	39800	39800	39800
5°	43725	38842	27855	30408
10°	38730	34183	16896	18130
15°	37713	32448	11960	12418
20°	43002	37531	7824	8647
25°	52392	47574	6831	7075
30°	63127	57701	7085	6574
35°	73623	67751	5871	5533
40°	88468	81829	5484	5195
45°	102956	94044	5550	5160
50°	116354	106894	5676	5332
55°	135695	127406	5879	5590
60°	165502	160969	5860	5860
65°	185996	186257	6017	6278
70°	182793	189259	6304	6464
75°	150786	160823	6621	7047
80°	108871	114282	7321	7640
85°	60250	64690	8244	10146

TEST NUMBER: P599105
 CATALOG NUMBER: IFLD-L-SA8A-830-U-SLL

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	574.5	2.5
10°-20°	1212.9	5.2
20°-30°	1774.7	7.7
30°-40°	2500.4	10.8
40°-50°	3436.3	14.8
50°-60°	4683.3	20.2
60°-70°	5125.7	22.1
70°-80°	2959.3	12.8
80°-90°	886.2	3.8
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	3562.1	15.4
0°-40°	6062.6	26.2
0°-60°	14182.3	61.3
0°-90°	23153.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	23153.4	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	7395	7395	7395	7395	7395	
5°	8094	7190	5156	5628	8094	735
15°	6769	5824	2147	2229	6769	1978
25°	8823	8011	1150	1191	8823	4131
35°	11206	10312	894	842	11206	7105
45°	13527	12356	729	678	13527	10396
55°	14462	13578	626	596	14462	13048
65°	14605	14626	472	493	14605	13979
75°	7251	7734	318	339	7251	7789
85°	976	1048	134	164	976	1354
90°	0	0	0	0	0	

TEST NUMBER: P599105
 CATALOG NUMBER: IFLD-L-SA8A-830-U-SLL

CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	7395.1	7395.1	7395.1	7395.1	7395.1	7395.1	7395.1	7395.1	7395.1	7395.1	7395.1
2.5°	7918.9	7888.1	7918.9	8031.9	8062.7	8114.0	8114.0	8042.1	7908.6	7847.0	7744.3
5°	8093.5	8042.1	8298.9	8535.2	8720.0	8699.5	8524.9	8381.1	8114.0	7713.5	7333.5
7.5°	7744.3	7795.6	7980.5	8596.8	9028.2	9110.3	8833.0	8545.4	7970.3	7415.6	6902.1
10°	7086.9	7158.8	7559.4	8196.2	8874.1	9007.6	8833.0	8483.8	7795.6	7107.5	6511.8
12.5°	6768.6	6932.9	7169.1	7939.4	8422.2	8740.6	8658.4	8432.4	7662.1	6850.7	6275.5
15°	6768.6	6809.6	7158.8	7805.9	8083.2	8093.5	8124.3	8165.4	7703.2	6963.7	6193.4
17.5°	6984.2	7097.2	7395.1	7795.6	7847.0	7723.7	7723.7	7898.4	7785.4	7282.1	6491.2
20°	7508.1	7467.0	7857.3	8021.6	7744.3	7436.2	7405.3	7703.2	7877.8	7621.0	7035.6
22.5°	8031.9	8216.8	8535.2	8165.4	7651.9	7241.0	7199.9	7569.7	8155.1	8206.5	7662.1
25°	8822.7	9007.6	9172.0	8720.0	7641.6	7189.7	7220.5	7508.1	8494.1	9038.4	8709.8
27.5°	9675.2	9788.2	10024.4	9326.0	7888.1	7128.0	7158.8	7590.2	8812.5	9582.8	9531.4
30°	10158.0	10281.2	10229.9	9439.0	8052.4	7169.1	7086.9	7703.2	8637.9	9582.8	10065.5
32.5°	10630.4	10558.5	10527.7	9623.9	8257.8	7425.9	7220.5	7939.4	8740.6	9736.9	10753.7
35°	11205.6	11102.9	11020.7	9983.4	8596.8	7672.4	7580.0	8247.6	8966.5	10055.3	11308.3
37.5°	11842.4	11842.4	11441.8	10250.4	8997.3	8073.0	7970.3	8689.2	9326.0	10250.4	12068.4
40°	12592.2	12623.0	11914.3	10609.9	9449.3	8709.8	8678.9	9264.4	9675.2	10538.0	12797.6
42.5°	13146.8	13167.3	12325.1	10743.4	9973.1	9593.1	9726.6	10188.8	10075.8	10794.8	12848.9
45°	13526.8	13424.1	12612.7	11123.4	10548.3	10918.0	10959.1	11092.6	10599.6	10948.8	13054.4
47.5°	13711.7	13691.2	12736.0	11565.1	11760.2	12263.5	12499.7	12314.9	11082.3	10784.5	13054.4
50°	13896.6	13722.0	12848.9	12171.1	12941.4	13958.2	13906.9	13567.9	11750.0	10989.9	12859.2
52.5°	14019.8	13865.8	13074.9	12715.4	14071.2	15221.5	15427.0	14800.4	12530.5	11369.9	12951.7
55°	14461.5	14338.2	13752.8	13454.9	15375.6	16556.8	16587.6	15714.5	13352.2	11996.5	13557.6
57.5°	14995.6	15067.5	14687.4	14502.6	16371.9	17532.5	17419.5	16392.4	14050.6	12756.5	14256.1
60°	15375.6	15488.6	15396.1	15416.7	16864.9	17861.2	17604.4	16813.5	14564.2	13331.7	15108.6
62.5°	15170.2	15396.1	15776.2	15694.0	16885.4	17624.9	17265.5	16258.9	14625.8	14081.5	15755.6
65°	14605.3	14625.8	15365.3	15817.2	15961.0	16402.7	15930.2	15098.3	13989.0	14543.7	15663.2
67.5°	13157.1	13321.4	13989.0	14872.3	14266.3	14369.0	14328.0	13126.3	13023.6	14225.3	14954.5
70°	11616.4	11729.4	12458.7	13496.0	12047.8	11565.1	11657.5	10763.9	11185.1	13239.2	13526.8
72.5°	9603.3	9675.2	10507.2	11421.3	9665.0	8802.2	9017.9	8288.6	8884.4	11585.6	11411.0
75°	7251.3	7384.8	8031.9	9110.3	7117.8	6563.1	6778.8	6481.0	7035.6	9541.7	8853.6
77.5°	5156.0	5053.3	5854.4	7128.0	5351.2	5022.5	5043.0	5094.4	5690.1	8042.1	6357.7
80°	3512.7	3543.5	4262.4	5227.9	4200.8	4149.5	4098.1	4508.9	4776.0	6368.0	4621.9
82.5°	2085.0	2085.0	2875.9	3718.1	3317.5	3738.6	3502.4	3872.1	3738.6	4683.5	3029.9
85°	975.7	975.7	1479.0	2680.7	2567.7	3081.3	2619.1	2927.2	2762.9	3266.2	1366.0
87.5°	164.3	143.8	297.9	1314.7	1057.9	1201.7	472.5	1561.2	1735.8	2280.1	338.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P599105
 CATALOG NUMBER: IFLD-L-SA8A-830-U-SLL

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	7395.1	7395.1	7395.1	7395.1	7395.1	7395.1	7395.1	7395.1	7395.1	7395.1	7395.1
2.5°	7631.3	7559.4	7415.6	7230.7	7076.7	6881.5	6819.9	6686.4	6501.5	6481.0	6398.8
5°	7189.7	6943.2	6635.0	6255.0	5998.2	5731.2	5505.2	5371.7	5217.6	5197.1	5156.0
7.5°	6706.9	6398.8	5885.2	5433.3	4991.7	4570.6	4365.2	4108.4	3933.8	3800.2	3738.6
10°	6255.0	5967.4	5330.6	4714.4	4324.1	4046.8	3800.2	3533.2	3317.5	3153.2	3091.6
12.5°	5957.1	5618.2	4930.1	4344.6	4057.0	3738.6	3461.3	3173.7	2896.4	2680.7	2567.7
15°	5823.6	5505.2	4806.8	4159.7	3738.6	3297.0	2978.6	2691.0	2352.0	2198.0	2146.6
17.5°	6142.0	5669.6	4765.7	3944.0	3348.3	2845.1	2454.8	2146.6	1900.1	1746.1	1684.4
20°	6552.9	5967.4	4837.6	3687.3	2978.6	2413.7	1982.3	1653.6	1489.3	1376.3	1366.0
22.5°	7076.7	6409.1	4950.6	3502.4	2567.7	1941.2	1550.9	1355.8	1242.8	1232.5	1212.0
25°	8011.3	7210.2	5135.5	3255.9	2239.1	1602.3	1325.0	1212.0	1160.6	1129.8	1150.3
27.5°	8812.5	7734.0	5269.0	3101.8	2105.5	1509.8	1283.9	1160.6	1109.3	1099.0	1109.3
30°	9284.9	8216.8	5227.9	2814.2	1838.5	1437.9	1366.0	1325.0	1222.2	1140.1	1140.1
32.5°	9716.3	8524.9	5217.6	2557.5	1571.5	1201.7	1140.1	1109.3	1170.9	1212.0	1181.2
35°	10312.0	9007.6	5186.8	2413.7	1458.5	1109.3	1006.6	924.4	883.3	862.8	893.6
37.5°	10948.8	9336.3	5104.7	2393.1	1396.8	1057.9	975.7	893.6	852.5	831.9	821.7
40°	11647.2	9685.5	5012.2	2290.4	1366.0	1027.1	944.9	873.0	821.7	790.9	780.6
42.5°	12099.2	9962.8	4919.8	2239.1	1304.4	1006.6	914.1	852.5	801.1	760.0	760.0
45°	12355.9	10291.5	4827.3	2187.7	1232.5	1016.8	914.1	831.9	770.3	749.8	729.2
47.5°	12468.9	10538.0	4796.5	2105.5	1170.9	975.7	893.6	811.4	749.8	708.7	698.4
50°	12766.8	11061.8	4909.5	2043.9	1099.0	934.7	944.9	801.1	739.5	688.2	677.9
52.5°	12941.4	11482.9	5156.0	1951.5	1047.6	883.3	924.4	780.6	708.7	657.3	657.3
55°	13578.2	12181.3	5423.1	1879.6	986.0	811.4	852.5	739.5	657.3	626.5	626.5
57.5°	14389.6	12920.8	5649.0	1848.8	944.9	760.0	760.0	719.0	626.5	585.4	575.2
60°	14954.5	13526.8	5782.5	1828.2	903.8	708.7	677.9	719.0	595.7	554.6	544.4
62.5°	15016.1	13177.6	5649.0	1818.0	893.6	657.3	616.3	688.2	564.9	523.8	503.3
65°	14625.8	12468.9	5279.3	1776.9	883.3	606.0	575.2	595.7	523.8	493.0	472.5
67.5°	13845.2	11318.6	4745.2	1756.3	873.0	564.9	523.8	513.5	482.7	451.9	431.4
70°	12027.3	9819.0	4118.6	1663.9	852.5	534.1	472.5	462.2	431.4	410.8	400.6
72.5°	10096.3	8031.9	3399.7	1540.6	811.4	482.7	431.4	410.8	400.6	369.8	359.5
75°	7734.0	6183.1	2721.8	1366.0	708.7	431.4	380.0	359.5	349.2	328.7	318.4
77.5°	5433.3	4601.4	2013.1	1109.3	595.7	390.3	338.9	318.4	308.1	277.3	277.3
80°	3687.3	3225.1	1366.0	770.3	462.2	318.4	297.9	277.3	256.8	236.2	236.2
82.5°	2290.4	2259.6	986.0	503.3	338.9	256.8	236.2	236.2	205.4	184.9	184.9
85°	1047.6	1386.6	688.2	349.2	256.8	195.1	195.1	184.9	164.3	133.5	133.5
87.5°	328.7	462.2	359.5	154.1	143.8	113.0	113.0	102.7	102.7	82.2	82.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P599105
 CATALOG NUMBER: IFLD-L-SA8A-830-U-SLL

CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	7395.1	7395.1	7395.1	7395.1	7395.1	7395.1	7395.1	7395.1	7395.1	7395.1	7395.1
2.5°	6481.0	6470.7	6470.7	6429.6	6532.3	6532.3	6593.9	6542.6	6573.4	6583.7	6665.8
5°	5145.7	5227.9	5289.5	5412.8	5484.7	5515.5	5515.5	5597.7	5566.9	5628.5	5751.7
7.5°	3769.4	3872.1	4057.0	4211.1	4334.3	4375.4	4365.2	4385.7	4416.5	4344.6	4365.2
10°	3050.5	2978.6	3040.2	3184.0	3297.0	3430.5	3327.8	3317.5	3348.3	3317.5	3379.1
12.5°	2547.2	2465.0	2413.7	2413.7	2495.8	2557.5	2526.7	2578.0	2691.0	2721.8	2793.7
15°	2064.5	1992.6	1951.5	1900.1	1982.3	2002.8	2033.6	2105.5	2187.7	2228.8	2311.0
17.5°	1653.6	1653.6	1653.6	1612.5	1643.4	1674.2	1684.4	1776.9	1787.1	1828.2	1859.0
20°	1355.8	1386.6	1437.9	1458.5	1489.3	1489.3	1468.7	1520.1	1479.0	1509.8	1530.4
22.5°	1222.2	1263.3	1283.9	1294.1	1335.2	1345.5	1294.1	1304.4	1314.7	1283.9	1294.1
25°	1150.3	1170.9	1150.3	1160.6	1170.9	1150.3	1160.6	1181.2	1170.9	1191.4	1181.2
27.5°	1119.5	1099.0	1088.7	1078.4	1078.4	1057.9	1068.2	1068.2	1088.7	1099.0	1099.0
30°	1119.5	1088.7	1047.6	1016.8	1016.8	986.0	1006.6	1027.1	1037.4	1057.9	1057.9
32.5°	1150.3	1088.7	1016.8	986.0	955.2	934.7	955.2	986.0	1027.1	1037.4	1047.6
35°	914.1	944.9	934.7	893.6	883.3	883.3	873.0	873.0	842.2	842.2	831.9
37.5°	821.7	811.4	831.9	842.2	852.5	821.7	821.7	780.6	770.3	780.6	780.6
40°	770.3	770.3	770.3	801.1	811.4	790.9	760.0	739.5	739.5	739.5	749.8
42.5°	749.8	729.2	719.0	739.5	770.3	749.8	719.0	708.7	708.7	719.0	719.0
45°	719.0	708.7	698.4	688.2	729.2	698.4	688.2	677.9	677.9	677.9	688.2
47.5°	688.2	677.9	657.3	657.3	667.6	657.3	647.1	647.1	647.1	667.6	667.6
50°	667.6	657.3	636.8	636.8	636.8	636.8	626.5	626.5	626.5	636.8	647.1
52.5°	636.8	626.5	616.3	606.0	606.0	606.0	606.0	606.0	606.0	616.3	626.5
55°	606.0	595.7	585.4	585.4	595.7	595.7	585.4	595.7	585.4	595.7	606.0
57.5°	575.2	564.9	554.6	564.9	575.2	564.9	564.9	564.9	564.9	564.9	575.2
60°	534.1	534.1	534.1	534.1	554.6	554.6	554.6	554.6	534.1	544.4	554.6
62.5°	513.5	503.3	503.3	513.5	523.8	523.8	534.1	523.8	513.5	523.8	523.8
65°	472.5	472.5	472.5	482.7	482.7	493.0	493.0	493.0	482.7	493.0	493.0
67.5°	441.7	441.7	441.7	441.7	462.2	462.2	462.2	462.2	451.9	451.9	462.2
70°	390.3	400.6	390.3	410.8	431.4	421.1	431.4	431.4	421.1	410.8	431.4
72.5°	359.5	359.5	359.5	359.5	390.3	390.3	390.3	400.6	390.3	380.0	390.3
75°	318.4	318.4	318.4	328.7	349.2	349.2	349.2	349.2	349.2	338.9	338.9
77.5°	277.3	287.6	277.3	287.6	308.1	297.9	308.1	318.4	308.1	297.9	297.9
80°	236.2	236.2	236.2	246.5	256.8	256.8	256.8	267.0	256.8	246.5	246.5
82.5°	184.9	184.9	195.1	195.1	205.4	205.4	205.4	215.7	205.4	195.1	195.1
85°	143.8	143.8	143.8	154.1	154.1	164.3	164.3	174.6	174.6	164.3	164.3
87.5°	92.4	82.2	92.4	92.4	102.7	102.7	92.4	82.2	92.4	82.2	71.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P599105
 CATALOG NUMBER: IFLD-L-SA8A-830-U-SLL

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	7395.1	7395.1	7395.1	7395.1	7395.1	7395.1	7395.1	7395.1	7395.1	7395.1
2.5°	6748.0	6932.9	7066.4	7158.8	7292.4	7549.1	7651.9	7836.7	7888.1	7918.9
5°	5803.1	5998.2	6285.8	6491.2	6727.5	7210.2	7580.0	7857.3	7980.5	8093.5
7.5°	4550.0	4806.8	5104.7	5371.7	5762.0	6357.7	6840.4	7415.6	7631.3	7744.3
10°	3553.7	3790.0	4118.6	4447.3	4991.7	5495.0	6183.1	6706.9	7004.8	7086.9
12.5°	2999.1	3276.4	3666.7	4067.3	4406.2	4981.4	5679.8	6439.9	6717.2	6768.6
15°	2547.2	2927.2	3327.8	3738.6	4128.9	4632.2	5382.0	6306.4	6717.2	6768.6
17.5°	2105.5	2444.5	2916.9	3358.6	3810.5	4498.7	5433.3	6419.3	6830.2	6984.2
20°	1674.2	2002.8	2372.6	2927.2	3543.5	4272.7	5546.3	6799.4	7343.7	7508.1
22.5°	1386.6	1530.4	1889.9	2423.9	3153.2	4118.6	5659.3	7395.1	7970.3	8031.9
25°	1212.0	1314.7	1540.6	2043.9	2845.1	4015.9	5926.3	8083.2	8822.7	8822.7
27.5°	1129.8	1170.9	1325.0	1776.9	2629.4	3923.5	6193.4	8843.3	9531.4	9675.2
30°	1109.3	1212.0	1294.1	1581.7	2393.1	3666.7	6439.9	9439.0	10147.7	10158.0
32.5°	1088.7	1068.2	1129.8	1376.3	2105.5	3399.7	6645.3	10045.0	10599.6	10630.4
35°	852.5	893.6	996.3	1212.0	1889.9	3204.5	6748.0	10373.7	11174.8	11205.6
37.5°	801.1	852.5	934.7	1119.5	1746.1	3040.2	6778.8	11010.4	11780.8	11842.4
40°	780.6	821.7	883.3	1037.4	1633.1	2834.8	6840.4	11667.8	12674.3	12592.2
42.5°	739.5	790.9	852.5	996.3	1540.6	2680.7	6850.7	12027.3	13146.8	13146.8
45°	729.2	760.0	831.9	996.3	1437.9	2547.2	6686.4	12386.8	13691.2	13526.8
47.5°	688.2	749.8	811.4	965.5	1314.7	2413.7	6491.2	12571.6	13763.1	13711.7
50°	677.9	739.5	842.2	914.1	1242.8	2352.0	6450.2	13033.8	13906.9	13896.6
52.5°	657.3	719.0	873.0	873.0	1150.3	2269.9	6645.3	13239.2	13937.7	14019.8
55°	626.5	719.0	811.4	801.1	1068.2	2167.2	6861.0	13773.3	14482.0	14461.5
57.5°	606.0	698.4	770.3	729.2	975.7	2095.3	7179.4	14286.9	15139.4	14995.6
60°	575.2	698.4	688.2	677.9	903.8	2033.6	7446.4	14389.6	15283.2	15375.6
62.5°	554.6	729.2	606.0	626.5	842.2	2002.8	7333.5	13619.3	15088.0	15170.2
65°	534.1	626.5	554.6	575.2	821.7	1941.2	6891.8	12694.9	14245.8	14605.3
67.5°	493.0	513.5	513.5	534.1	801.1	1797.4	5988.0	11031.0	12961.9	13157.1
70°	451.9	462.2	462.2	493.0	780.6	1633.1	4940.3	9541.7	11246.7	11616.4
72.5°	410.8	410.8	410.8	451.9	719.0	1499.6	4067.3	7333.5	9346.6	9603.3
75°	359.5	359.5	359.5	400.6	647.1	1366.0	3204.5	5453.9	6881.5	7251.3
77.5°	318.4	318.4	308.1	359.5	564.9	1109.3	2311.0	3851.6	4847.9	5156.0
80°	267.0	256.8	256.8	287.6	441.7	801.1	1489.3	2721.8	3379.1	3512.7
82.5°	215.7	205.4	195.1	215.7	318.4	503.3	924.4	1900.1	2167.2	2085.0
85°	205.4	215.7	174.6	164.3	226.0	328.7	585.4	1170.9	975.7	975.7
87.5°	82.2	71.9	71.9	61.6	113.0	123.3	256.8	215.7	164.3	164.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)