

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: P599089

Luminaire Tested: **IFLD-S-SA3E-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: P599089  
 Test Lab: INNOVATION CENTER(G1)  
 Issue Date: 05/03/2022  
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
 Product Line: STREETWORKS  
 Catalog Number: IFLD-S-SA3E-830-U-SLL  
 Description: Infrastructure Flood – Middle Tier Light Square Luminaire w/ SLL distribution lens  
 Light Source: (48) 3000K CCT, 80 CRI LEDs  
 Ballast/Driver: ELECTRONIC DRIVER

**Summary**

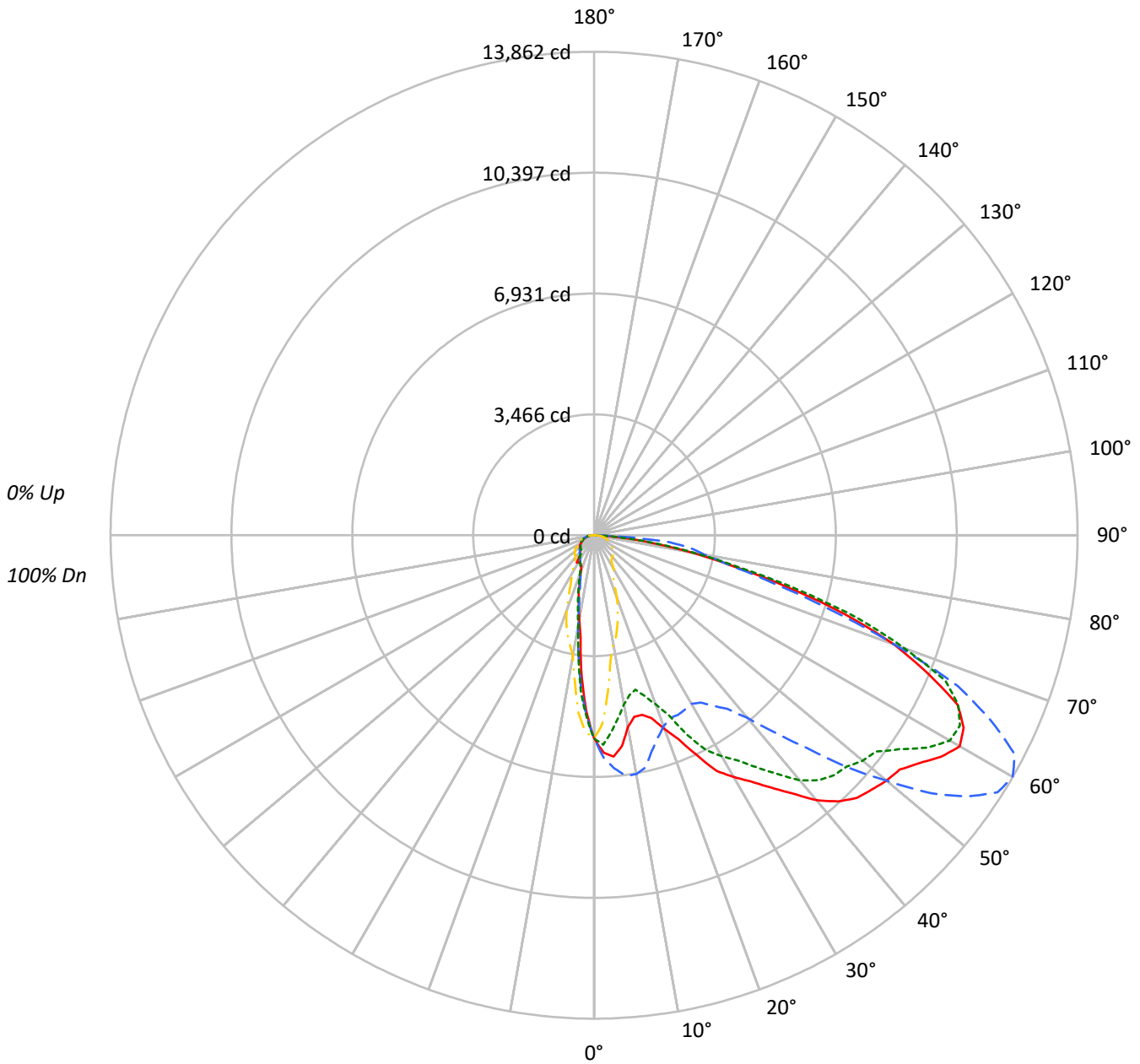
Lumens per Lamp: N/A  
 Luminaire Lumens: 18231.0 lumens  
 Efficiency: N/A  
 Efficacy: 78.5 lumens/watt  
 Spacing Criteria (0/90/45): 1.12 / 0.52 / 0.8  
 Luminous Opening: Rectangular (W 1.5' x L: 0.5' x H: 0')  
 CIE Type: Direct

Input Watts (W): 232.1  
 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: P599089  
CATALOG NUMBER: IFLD-S-SA3E-830-U-SLL

### Luminous Intensity Polar Plot



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

TEST NUMBER: P599089

CATALOG NUMBER: IFLD-S-SA3E-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
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100
1	106	100	94	89	103	97	92	88	93	89	85	89	85	82	85	82	80	77	77	77
2	94	83	75	68	91	81	74	67	78	71	65	74	69	64	71	66	62	60	60	60
3	84	71	61	53	81	69	60	53	66	58	52	63	56	51	60	55	50	47	47	47
4	75	61	51	43	73	60	50	42	57	48	42	54	47	41	52	46	40	38	38	38
5	68	53	43	35	66	52	42	35	50	41	34	48	40	34	46	39	34	31	31	31
6	63	47	37	30	60	46	37	29	44	36	29	42	35	29	41	34	29	26	26	26
7	58	42	32	25	56	41	32	25	40	31	25	38	31	25	37	30	25	22	22	22
8	53	38	29	22	52	37	28	22	36	28	22	35	27	22	33	27	22	19	19	19
9	50	35	26	20	48	34	26	20	33	25	19	32	25	19	31	24	19	17	17	17
10	46	32	23	18	45	31	23	18	30	23	17	29	22	17	28	22	17	15	15	15

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°	270°
0°	83570	83570	83570	83570
5°	91811	81558	58488	63849
10°	81323	71776	35476	38068
15°	79188	68132	25115	26076
20°	90291	78804	16428	18156
25°	110010	99892	14344	14855
30°	132551	121159	14877	13805
35°	154588	142261	12327	11620
40°	185760	171819	11515	10909
45°	216179	197468	11654	10834
50°	244313	224450	11918	11195
55°	284923	267520	12343	11738
60°	347508	337993	12302	12302
65°	390541	391091	12633	13183
70°	383819	397394	13235	13575
75°	316611	337688	13902	14800
80°	228599	239964	15373	16042
85°	126516	135836	17307	21308

TEST NUMBER: P599089  
 CATALOG NUMBER: IFLD-S-SA3E-830-U-SLL

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	452.4	2.5
10°-20°	955.1	5.2
20°-30°	1397.4	7.7
30°-40°	1968.8	10.8
40°-50°	2705.8	14.8
50°-60°	3687.7	20.2
60°-70°	4036.0	22.1
70°-80°	2330.1	12.8
80°-90°	697.8	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°	2804.8	15.4
0°-40°	4773.7	26.2
0°-60°	11167.1	61.3
0°-90°	18231.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	18231.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	5823	5823	5823	5823	5823	
5°	6373	5661	4060	4432	6373	579
15°	5330	4586	1690	1755	5330	1557
25°	6947	6308	906	938	6947	3253
35°	8823	8120	704	663	8823	5595
45°	10651	9729	574	534	10651	8186
55°	11387	10692	493	469	11387	10274
65°	11500	11516	372	388	11500	11007
75°	5710	6090	251	267	5710	6133
85°	768	825	105	129	768	1066
90°	0	0	0	0	0	

TEST NUMBER: P599089  
 CATALOG NUMBER: IFLD-S-SA3E-830-U-SLL

**CANDELA DISTRIBUTION (FULL):**

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	5822.9	5822.9	5822.9	5822.9	5822.9	5822.9	5822.9	5822.9	5822.9	5822.9	5822.9
2.5°	6235.3	6211.1	6235.3	6324.3	6348.6	6389.0	6389.0	6332.4	6227.2	6178.7	6097.9
5°	6372.8	6332.4	6534.6	6720.6	6866.1	6850.0	6712.5	6599.3	6389.0	6073.6	5774.4
7.5°	6097.9	6138.3	6283.9	6769.1	7108.8	7173.5	6955.1	6728.7	6275.8	5839.1	5434.7
10°	5580.3	5636.9	5952.3	6453.7	6987.5	7092.6	6955.1	6680.1	6138.3	5596.4	5127.4
12.5°	5329.6	5459.0	5645.0	6251.5	6631.6	6882.3	6817.6	6639.7	6033.2	5394.3	4941.4
15°	5329.6	5361.9	5636.9	6146.4	6364.7	6372.8	6397.1	6429.4	6065.5	5483.2	4876.7
17.5°	5499.4	5588.3	5822.9	6138.3	6178.7	6081.7	6081.7	6219.2	6130.2	5733.9	5111.2
20°	5911.8	5879.5	6186.8	6316.2	6097.9	5855.2	5831.0	6065.5	6203.0	6000.8	5539.8
22.5°	6324.3	6469.9	6720.6	6429.4	6025.1	5701.6	5669.2	5960.4	6421.3	6461.8	6033.2
25°	6947.0	7092.6	7222.0	6866.1	6017.0	5661.1	5685.4	5911.8	6688.2	7116.9	6858.1
27.5°	7618.3	7707.2	7893.2	7343.3	6211.1	5612.6	5636.9	5976.5	6938.9	7545.5	7505.0
30°	7998.4	8095.4	8055.0	7432.3	6340.5	5645.0	5580.3	6065.5	6801.4	7545.5	7925.6
32.5°	8370.4	8313.8	8289.5	7577.8	6502.2	5847.1	5685.4	6251.5	6882.3	7666.8	8467.4
35°	8823.3	8742.4	8677.7	7860.9	6769.1	6041.2	5968.5	6494.1	7060.2	7917.5	8904.2
37.5°	9324.7	9324.7	9009.3	8071.2	7084.5	6356.6	6275.8	6841.9	7343.3	8071.2	9502.6
40°	9915.1	9939.3	9381.3	8354.2	7440.3	6858.1	6833.8	7294.8	7618.3	8297.6	10076.8
42.5°	10351.8	10368.0	9704.8	8459.4	7852.8	7553.6	7658.7	8022.6	7933.7	8499.8	10117.3
45°	10651.0	10570.1	9931.2	8758.6	8305.7	8596.8	8629.2	8734.3	8346.1	8621.1	10279.0
47.5°	10796.6	10780.4	10028.3	9106.3	9260.0	9656.3	9842.3	9696.7	8726.2	8491.7	10279.0
50°	10942.2	10804.7	10117.3	9583.5	10190.0	10990.7	10950.3	10683.4	9251.9	8653.4	10125.3
52.5°	11039.2	10917.9	10295.2	10012.1	11079.6	11985.4	12147.2	11653.8	9866.5	8952.7	10198.1
55°	11387.0	11289.9	10828.9	10594.4	12106.7	13036.8	13061.0	12373.6	10513.5	9446.0	10675.3
57.5°	11807.5	11864.1	11564.9	11419.3	12891.2	13805.1	13716.1	12907.4	11063.5	10044.5	11225.2
60°	12106.7	12195.7	12122.9	12139.1	13279.4	14063.9	13861.7	13239.0	11467.8	10497.4	11896.5
62.5°	11945.0	12122.9	12422.1	12357.4	13295.6	13877.9	13594.8	12802.3	11516.4	11087.7	12406.0
65°	11500.2	11516.4	12098.7	12454.5	12567.7	12915.5	12543.5	11888.4	11014.9	11451.7	12333.2
67.5°	10359.9	10489.3	11014.9	11710.5	11233.3	11314.2	11281.8	10335.6	10254.7	11201.0	11775.2
70°	9146.8	9235.7	9809.9	10626.8	9486.4	9106.3	9179.1	8475.5	8807.1	10424.6	10651.0
72.5°	7561.7	7618.3	8273.3	8993.1	7610.2	6930.8	7100.7	6526.5	6995.5	9122.5	8985.0
75°	5709.7	5814.8	6324.3	7173.5	5604.5	5167.8	5337.6	5103.1	5539.8	7513.1	6971.3
77.5°	4059.8	3979.0	4609.8	5612.6	4213.5	3954.7	3970.9	4011.3	4480.4	6332.4	5006.1
80°	2765.9	2790.1	3356.2	4116.5	3307.7	3267.3	3226.8	3550.3	3760.6	5014.1	3639.3
82.5°	1641.7	1641.7	2264.5	2927.6	2612.2	2943.8	2757.8	3048.9	2943.8	3687.8	2385.8
85°	768.3	768.3	1164.6	2110.8	2021.8	2426.2	2062.3	2304.9	2175.5	2571.8	1075.6
87.5°	129.4	113.2	234.5	1035.2	833.0	946.2	372.0	1229.3	1366.8	1795.4	266.9
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: P599089  
 CATALOG NUMBER: IFLD-S-SA3E-830-U-SLL

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5822.9	5822.9	5822.9	5822.9	5822.9	5822.9	5822.9	5822.9	5822.9	5822.9	5822.9
2.5°	6008.9	5952.3	5839.1	5693.5	5572.2	5418.5	5370.0	5264.9	5119.3	5103.1	5038.4
5°	5661.1	5467.0	5224.4	4925.2	4723.0	4512.7	4334.8	4229.7	4108.4	4092.2	4059.8
7.5°	5281.0	5038.4	4634.0	4278.2	3930.4	3598.9	3437.1	3234.9	3097.4	2992.3	2943.8
10°	4925.2	4698.7	4197.3	3712.1	3404.8	3186.4	2992.3	2782.0	2612.2	2482.8	2434.3
12.5°	4690.7	4423.8	3881.9	3420.9	3194.5	2943.8	2725.4	2499.0	2280.6	2110.8	2021.8
15°	4585.5	4334.8	3784.9	3275.4	2943.8	2596.0	2345.3	2118.9	1852.0	1730.7	1690.3
17.5°	4836.2	4464.2	3752.5	3105.5	2636.5	2240.2	1932.9	1690.3	1496.2	1374.8	1326.3
20°	5159.7	4698.7	3809.1	2903.4	2345.3	1900.5	1560.9	1302.1	1172.7	1083.7	1075.6
22.5°	5572.2	5046.5	3898.1	2757.8	2021.8	1528.5	1221.2	1067.5	978.6	970.5	954.3
25°	6308.1	5677.3	4043.7	2563.7	1763.0	1261.6	1043.3	954.3	913.9	889.6	905.8
27.5°	6938.9	6089.8	4148.8	2442.4	1657.9	1188.8	1010.9	913.9	873.4	865.3	873.4
30°	7311.0	6469.9	4116.5	2215.9	1447.6	1132.2	1075.6	1043.3	962.4	897.7	897.7
32.5°	7650.6	6712.5	4108.4	2013.7	1237.4	946.2	897.7	873.4	922.0	954.3	930.0
35°	8119.7	7092.6	4084.1	1900.5	1148.4	873.4	792.6	727.9	695.5	679.3	703.6
37.5°	8621.1	7351.4	4019.4	1884.3	1099.9	833.0	768.3	703.6	671.2	655.1	647.0
40°	9171.0	7626.4	3946.6	1803.5	1075.6	808.7	744.0	687.4	647.0	622.7	614.6
42.5°	9526.9	7844.7	3873.8	1763.0	1027.1	792.6	719.8	671.2	630.8	598.5	598.5
45°	9729.1	8103.5	3801.0	1722.6	970.5	800.6	719.8	655.1	606.6	590.4	574.2
47.5°	9818.0	8297.6	3776.8	1657.9	922.0	768.3	703.6	638.9	590.4	558.0	549.9
50°	10052.6	8710.1	3865.7	1609.4	865.3	735.9	744.0	630.8	582.3	541.9	533.8
52.5°	10190.0	9041.6	4059.8	1536.6	824.9	695.5	727.9	614.6	558.0	517.6	517.6
55°	10691.5	9591.6	4270.1	1480.0	776.4	638.9	671.2	582.3	517.6	493.3	493.3
57.5°	11330.4	10173.9	4448.0	1455.7	744.0	598.5	598.5	566.1	493.3	461.0	452.9
60°	11775.2	10651.0	4553.2	1439.5	711.7	558.0	533.8	566.1	469.1	436.7	428.6
62.5°	11823.7	10376.1	4448.0	1431.5	703.6	517.6	485.2	541.9	444.8	412.5	396.3
65°	11516.4	9818.0	4156.9	1399.1	695.5	477.2	452.9	469.1	412.5	388.2	372.0
67.5°	10901.7	8912.2	3736.3	1382.9	687.4	444.8	412.5	404.4	380.1	355.8	339.7
70°	9470.3	7731.5	3243.0	1310.1	671.2	420.5	372.0	363.9	339.7	323.5	315.4
72.5°	7949.8	6324.3	2676.9	1213.1	638.9	380.1	339.7	323.5	315.4	291.1	283.1
75°	6089.8	4868.6	2143.1	1075.6	558.0	339.7	299.2	283.1	275.0	258.8	250.7
77.5°	4278.2	3623.1	1585.1	873.4	469.1	307.3	266.9	250.7	242.6	218.4	218.4
80°	2903.4	2539.4	1075.6	606.6	363.9	250.7	234.5	218.4	202.2	186.0	186.0
82.5°	1803.5	1779.2	776.4	396.3	266.9	202.2	186.0	186.0	161.7	145.6	145.6
85°	824.9	1091.8	541.9	275.0	202.2	153.7	153.7	145.6	129.4	105.1	105.1
87.5°	258.8	363.9	283.1	121.3	113.2	89.0	89.0	80.9	80.9	64.7	64.7
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: P599089  
 CATALOG NUMBER: IFLD-S-SA3E-830-U-SLL

**CANDELA DISTRIBUTION (continued):**

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	5822.9	5822.9	5822.9	5822.9	5822.9	5822.9	5822.9	5822.9	5822.9	5822.9	5822.9
2.5°	5103.1	5095.0	5095.0	5062.7	5143.5	5143.5	5192.1	5151.6	5175.9	5184.0	5248.7
5°	4051.8	4116.5	4165.0	4262.0	4318.6	4342.9	4342.9	4407.6	4383.3	4431.9	4528.9
7.5°	2968.1	3048.9	3194.5	3315.8	3412.9	3445.2	3437.1	3453.3	3477.6	3420.9	3437.1
10°	2401.9	2345.3	2393.9	2507.1	2596.0	2701.2	2620.3	2612.2	2636.5	2612.2	2660.7
12.5°	2005.7	1941.0	1900.5	1900.5	1965.2	2013.7	1989.5	2029.9	2118.9	2143.1	2199.8
15°	1625.6	1568.9	1536.6	1496.2	1560.9	1577.0	1601.3	1657.9	1722.6	1755.0	1819.7
17.5°	1302.1	1302.1	1302.1	1269.7	1294.0	1318.2	1326.3	1399.1	1407.2	1439.5	1463.8
20°	1067.5	1091.8	1132.2	1148.4	1172.7	1172.7	1156.5	1196.9	1164.6	1188.8	1205.0
22.5°	962.4	994.7	1010.9	1019.0	1051.4	1059.4	1019.0	1027.1	1035.2	1010.9	1019.0
25°	905.8	922.0	905.8	913.9	922.0	905.8	913.9	930.0	922.0	938.1	930.0
27.5°	881.5	865.3	857.3	849.2	849.2	833.0	841.1	841.1	857.3	865.3	865.3
30°	881.5	857.3	824.9	800.6	800.6	776.4	792.6	808.7	816.8	833.0	833.0
32.5°	905.8	857.3	800.6	776.4	752.1	735.9	752.1	776.4	808.7	816.8	824.9
35°	719.8	744.0	735.9	703.6	695.5	695.5	687.4	687.4	663.2	663.2	655.1
37.5°	647.0	638.9	655.1	663.2	671.2	647.0	647.0	614.6	606.6	614.6	614.6
40°	606.6	606.6	606.6	630.8	638.9	622.7	598.5	582.3	582.3	582.3	590.4
42.5°	590.4	574.2	566.1	582.3	606.6	590.4	566.1	558.0	558.0	566.1	566.1
45°	566.1	558.0	549.9	541.9	574.2	549.9	541.9	533.8	533.8	533.8	541.9
47.5°	541.9	533.8	517.6	517.6	525.7	517.6	509.5	509.5	509.5	525.7	525.7
50°	525.7	517.6	501.4	501.4	501.4	501.4	493.3	493.3	493.3	501.4	509.5
52.5°	501.4	493.3	485.2	477.2	477.2	477.2	477.2	477.2	477.2	485.2	493.3
55°	477.2	469.1	461.0	461.0	469.1	469.1	461.0	469.1	461.0	469.1	477.2
57.5°	452.9	444.8	436.7	444.8	452.9	444.8	444.8	444.8	444.8	444.8	452.9
60°	420.5	420.5	420.5	420.5	436.7	436.7	436.7	436.7	420.5	428.6	436.7
62.5°	404.4	396.3	396.3	404.4	412.5	412.5	420.5	412.5	404.4	412.5	412.5
65°	372.0	372.0	372.0	380.1	380.1	388.2	388.2	388.2	380.1	388.2	388.2
67.5°	347.8	347.8	347.8	347.8	363.9	363.9	363.9	363.9	355.8	355.8	363.9
70°	307.3	315.4	307.3	323.5	339.7	331.6	339.7	339.7	331.6	323.5	339.7
72.5°	283.1	283.1	283.1	283.1	307.3	307.3	307.3	315.4	307.3	299.2	307.3
75°	250.7	250.7	250.7	258.8	275.0	275.0	275.0	275.0	275.0	266.9	266.9
77.5°	218.4	226.4	218.4	226.4	242.6	234.5	242.6	250.7	242.6	234.5	234.5
80°	186.0	186.0	186.0	194.1	202.2	202.2	202.2	210.3	202.2	194.1	194.1
82.5°	145.6	145.6	153.7	153.7	161.7	161.7	161.7	169.8	161.7	153.7	153.7
85°	113.2	113.2	113.2	121.3	121.3	129.4	129.4	137.5	137.5	129.4	129.4
87.5°	72.8	64.7	72.8	72.8	80.9	80.9	72.8	64.7	72.8	64.7	56.6
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: P599089  
 CATALOG NUMBER: IFLD-S-SA3E-830-U-SLL

**CANDELA DISTRIBUTION (continued):**

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	5822.9	5822.9	5822.9	5822.9	5822.9	5822.9	5822.9	5822.9	5822.9	5822.9
2.5°	5313.4	5459.0	5564.1	5636.9	5742.0	5944.2	6025.1	6170.6	6211.1	6235.3
5°	4569.3	4723.0	4949.4	5111.2	5297.2	5677.3	5968.5	6186.8	6283.9	6372.8
7.5°	3582.7	3784.9	4019.4	4229.7	4537.0	5006.1	5386.2	5839.1	6008.9	6097.9
10°	2798.2	2984.2	3243.0	3501.8	3930.4	4326.7	4868.6	5281.0	5515.6	5580.3
12.5°	2361.5	2579.9	2887.2	3202.6	3469.5	3922.4	4472.3	5070.8	5289.1	5329.6
15°	2005.7	2304.9	2620.3	2943.8	3251.1	3647.4	4237.8	4965.6	5289.1	5329.6
17.5°	1657.9	1924.8	2296.8	2644.6	3000.4	3542.3	4278.2	5054.6	5378.1	5499.4
20°	1318.2	1577.0	1868.2	2304.9	2790.1	3364.3	4367.2	5353.8	5782.4	5911.8
22.5°	1091.8	1205.0	1488.1	1908.6	2482.8	3243.0	4456.1	5822.9	6275.8	6324.3
25°	954.3	1035.2	1213.1	1609.4	2240.2	3162.1	4666.4	6364.7	6947.0	6947.0
27.5°	889.6	922.0	1043.3	1399.1	2070.4	3089.4	4876.7	6963.2	7505.0	7618.3
30°	873.4	954.3	1019.0	1245.4	1884.3	2887.2	5070.8	7432.3	7990.3	7998.4
32.5°	857.3	841.1	889.6	1083.7	1657.9	2676.9	5232.5	7909.4	8346.1	8370.4
35°	671.2	703.6	784.5	954.3	1488.1	2523.2	5313.4	8168.2	8799.0	8823.3
37.5°	630.8	671.2	735.9	881.5	1374.8	2393.9	5337.6	8669.6	9276.2	9324.7
40°	614.6	647.0	695.5	816.8	1285.9	2232.1	5386.2	9187.2	9979.8	9915.1
42.5°	582.3	622.7	671.2	784.5	1213.1	2110.8	5394.3	9470.3	10351.8	10351.8
45°	574.2	598.5	655.1	784.5	1132.2	2005.7	5264.9	9753.3	10780.4	10651.0
47.5°	541.9	590.4	638.9	760.2	1035.2	1900.5	5111.2	9898.9	10837.0	10796.6
50°	533.8	582.3	663.2	719.8	978.6	1852.0	5078.8	10262.8	10950.3	10942.2
52.5°	517.6	566.1	687.4	687.4	905.8	1787.3	5232.5	10424.6	10974.5	11039.2
55°	493.3	566.1	638.9	630.8	841.1	1706.4	5402.3	10845.1	11403.1	11387.0
57.5°	477.2	549.9	606.6	574.2	768.3	1649.8	5653.0	11249.5	11920.7	11807.5
60°	452.9	549.9	541.9	533.8	711.7	1601.3	5863.3	11330.4	12034.0	12106.7
62.5°	436.7	574.2	477.2	493.3	663.2	1577.0	5774.4	10723.8	11880.3	11945.0
65°	420.5	493.3	436.7	452.9	647.0	1528.5	5426.6	9995.9	11217.1	11500.2
67.5°	388.2	404.4	404.4	420.5	630.8	1415.3	4714.9	8685.8	10206.2	10359.9
70°	355.8	363.9	363.9	388.2	614.6	1285.9	3890.0	7513.1	8855.6	9146.8
72.5°	323.5	323.5	323.5	355.8	566.1	1180.8	3202.6	5774.4	7359.5	7561.7
75°	283.1	283.1	283.1	315.4	509.5	1075.6	2523.2	4294.4	5418.5	5709.7
77.5°	250.7	250.7	242.6	283.1	444.8	873.4	1819.7	3032.8	3817.2	4059.8
80°	210.3	202.2	202.2	226.4	347.8	630.8	1172.7	2143.1	2660.7	2765.9
82.5°	169.8	161.7	153.7	169.8	250.7	396.3	727.9	1496.2	1706.4	1641.7
85°	161.7	169.8	137.5	129.4	177.9	258.8	461.0	922.0	768.3	768.3
87.5°	64.7	56.6	56.6	48.5	89.0	97.0	202.2	169.8	129.4	129.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)