

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: P599630

Luminaire Tested: **IFLD-L-SA8D-830-U-SLL-HSS**

Issue Date: 05/04/2022

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: P599630
 Test Lab: INNOVATION CENTER(G1)
 Issue Date: 05/04/2022
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
 Product Line: STREETWORKS
 Catalog Number: IFLD-L-SA8D-830-U-SLL-HSS
 Description: Infrastructure Flood – Middle Tier Light Square Luminaire w/ SLL distribution lens with House Side Shield
 Light Source: (128) 3000K CCT, 80 CRI LEDS
 Ballast/Driver: ELECTRONIC DRIVER

Summary

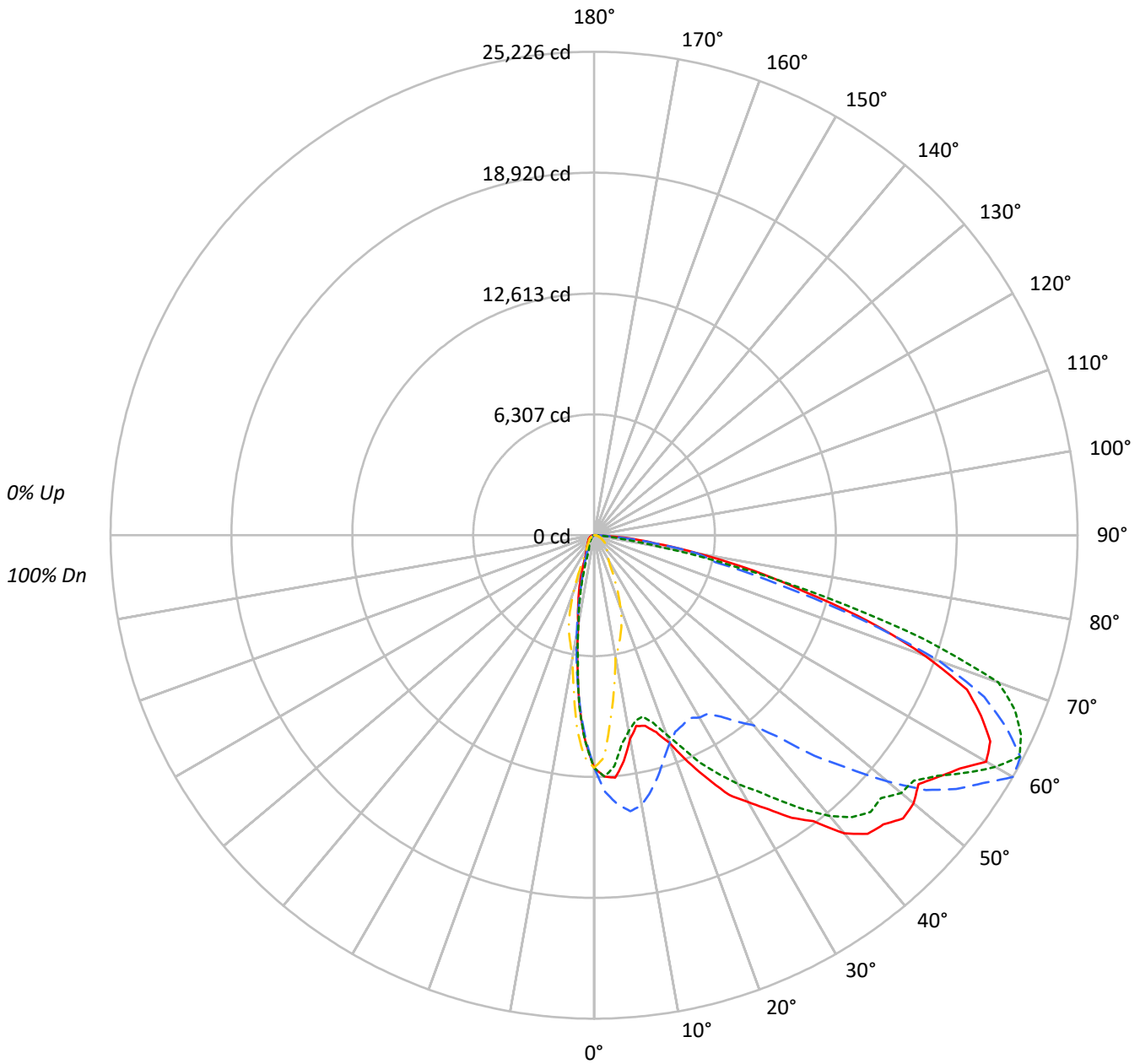
Lumens per Lamp: N/A
 Luminaire Lumens: 32263.3 lumens
 Efficiency: N/A
 Efficacy: 66.1 lumens/watt
 Spacing Criteria (0/90/45): 0.53 / 0.46 / 0.63
 Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
 CIE Type: Direct

Input Watts (W): 488.3
 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: P599630
CATALOG NUMBER: IFLD-L-SA8D-830-U-SLL-HSS

Luminous Intensity Polar Plot



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

TEST NUMBER: P599630
 CATALOG NUMBER: IFLD-L-SA8D-830-U-SLL-HSS

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	50	30	10	0		
RCR	0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	100	100	100	100	100		
	1	106	100	95	90	103	98	93	89	94	90	86	90	86	83	86	83	81	81	79	79	79	79	79		
	2	94	84	76	69	91	82	75	68	78	72	66	75	70	65	72	67	63	63	61	61	61	61	61		
	3	84	72	62	54	81	70	61	53	67	59	52	64	57	51	61	55	50	50	48	48	48	48	48		
	4	76	62	51	44	73	60	51	43	58	49	43	55	48	42	53	46	41	41	39	39	39	39	39		
	5	69	54	44	36	67	53	43	36	51	42	35	48	41	35	46	40	34	34	32	32	32	32	32		
	6	63	48	38	30	61	47	37	30	45	36	30	43	35	30	41	35	29	29	27	27	27	27	27		
	7	58	43	33	26	56	42	33	26	40	32	26	39	31	26	37	31	25	25	23	23	23	23	23		
	8	54	39	29	23	52	38	29	23	37	28	23	35	28	22	34	27	22	22	20	20	20	20	20		
	9	50	35	26	20	49	35	26	20	34	26	20	32	25	20	31	25	20	20	18	18	18	18	18		
	10	47	33	24	18	46	32	24	18	31	23	18	30	23	18	29	23	18	18	16	16	16	16	16		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	65287	65287	65287	65287
5°	68609	65304	47710	47989
10°	58997	56736	26084	25472
15°	57366	54533	16946	12769
20°	66122	63358	9080	4540
25°	83139	77767	5884	3530
30°	99856	93056	4765	2891
35°	118250	110948	3906	2321
40°	142670	134316	3450	1756
45°	162431	155348	3213	1181
50°	182218	175149	3174	722
55°	206065	205338	3153	324
60°	254287	260315	2875	93
65°	283731	312916	2634	0
70°	289314	353169	2441	0
75°	235410	260492	2329	0
80°	171164	108948	2402	0
85°	110658	45751	3193	0

TEST NUMBER: P599630
 CATALOG NUMBER: IFLD-L-SA8D-830-U-SLL-HSS

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	921.6	2.9
10°-20°	1807.2	5.6
20°-30°	2500.8	7.8
30°-40°	3534.3	11.0
40°-50°	4812.0	14.9
50°-60°	6373.2	19.8
60°-70°	7399.7	22.9
70°-80°	4190.5	13.0
80°-90°	724.1	2.2
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°	5229.5	16.2
0°-40°	8763.8	27.2
0°-60°	19949.0	61.8
0°-90°	32263.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	32263.3	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	12131	12131	12131	12131	12131	
5°	12699	12088	8831	8883	12699	1140
15°	10296	9787	3041	2292	10296	3020
25°	14000	13096	991	594	14000	6530
35°	17998	16887	594	353	17998	11346
45°	21341	20410	422	155	21341	16545
55°	21961	21884	336	34	21961	19897
65°	22280	24572	207	0	22280	21719
75°	11321	12527	112	0	11321	12356
85°	1792	741	52	0	1792	2153
90°	0	0	0	0	0	

TEST NUMBER: P599630
 CATALOG NUMBER: IFLD-L-SA8D-830-U-SLL-HSS

CANDELA DISTRIBUTION (FULL):

	0°	2°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	12130.8	12130.8	12130.8	12130.8	12130.8	12130.8	12130.8	12130.8	12130.8	12130.8	12130.8
2.5°	12604.6	12871.7	12880.3	13001.0	13121.6	13121.6	13405.9	13337.0	13087.1	13044.0	12863.1
5°	12699.4	12794.2	12863.1	13474.8	13991.8	13940.1	14095.1	13991.8	13509.3	12889.0	12466.8
7.5°	11880.9	11984.3	12260.0	13302.5	14000.4	14233.0	14525.9	13879.8	13371.4	12251.4	11441.5
10°	10795.4	10993.5	11501.8	12690.8	13552.4	14293.3	14293.3	13776.4	12794.2	11700.0	10709.2
12.5°	10192.3	10588.6	10864.3	12070.5	13190.5	13698.8	13681.6	13405.9	12768.3	11389.8	10269.8
15°	10295.7	10407.7	10993.5	11932.6	12673.6	12647.7	12957.9	12871.7	12423.7	11665.5	10433.5
17.5°	10769.5	10941.8	11450.1	11932.6	12285.9	12182.5	12173.9	12587.4	12613.3	12130.8	11045.2
20°	11544.9	12053.2	12294.5	12440.9	12010.2	11570.8	11519.1	12096.3	12544.3	12725.3	11777.5
22.5°	12785.6	13121.6	13612.7	12863.1	11743.1	11191.7	11088.3	11725.8	12630.5	13431.7	12725.3
25°	14000.4	14258.8	14732.7	13767.7	12044.6	11114.1	10933.2	11484.6	12957.9	14413.9	13871.1
27.5°	15284.1	15508.1	15559.8	14431.1	12208.3	10959.1	10743.7	11484.6	13233.6	14930.9	15241.0
30°	16068.1	16335.2	16386.9	15017.0	12475.4	11088.3	10984.9	11536.3	13423.1	15370.3	16223.2
32.5°	16946.9	17015.8	16972.8	15120.4	12768.3	11467.4	11036.6	11880.9	13638.5	15895.8	17119.2
35°	17998.0	18118.6	17679.2	15594.3	13423.1	11708.6	11553.5	12303.1	14009.0	16137.0	18204.8
37.5°	18799.3	19178.4	18187.6	15775.2	13552.4	12216.9	12242.8	13181.9	14267.5	16430.0	19402.4
40°	20307.0	19669.4	19049.1	16395.5	14043.4	13078.5	12940.6	14086.5	15137.6	16619.5	20186.4
42.5°	21134.1	20798.1	19385.1	16455.8	14801.6	14267.5	14301.9	15111.8	15594.3	17153.7	20401.8
45°	21340.9	20987.6	19841.8	16498.9	15551.2	15671.8	16266.3	16421.4	16266.3	17506.9	20806.7
47.5°	21866.4	21099.6	19790.1	17076.1	16766.0	17231.2	17989.4	18325.4	17179.5	17377.7	20996.2
50°	21763.0	21323.6	19678.1	17317.4	18247.9	19479.9	19988.2	19850.4	18196.2	17110.6	20789.5
52.5°	21332.3	20858.4	20022.7	17972.2	19635.0	21125.5	21832.0	21487.3	19100.8	17713.7	20651.6
55°	21961.2	21599.3	20470.7	18859.6	20677.5	22572.9	23072.6	22814.1	20212.2	18273.7	21435.6
57.5°	22641.8	22564.3	21685.5	19902.1	21909.5	24063.4	24063.4	23744.6	21177.2	19083.6	22598.7
60°	23624.0	23796.3	22581.5	20591.3	22331.7	23977.2	25226.5	24856.0	22150.7	20505.2	23916.9
62.5°	23305.2	23856.6	23736.0	22073.2	22814.1	24399.4	25080.0	25355.7	23356.9	22236.9	25674.5
65°	22280.0	22865.8	23727.4	23046.8	22452.3	23374.2	23718.8	24554.5	23960.0	23865.2	26398.2
67.5°	21056.6	21694.1	22228.3	23701.5	21720.0	22331.7	22030.1	22297.2	23305.2	25648.7	26811.8
70°	18385.7	18997.4	19841.8	22245.5	19781.4	19230.0	19152.5	19023.3	20591.3	25011.1	24933.6
72.5°	15120.4	15404.7	16800.4	18084.2	14637.9	14534.5	14655.2	14508.7	16326.6	22641.8	21358.1
75°	11320.9	11605.2	12397.9	13888.4	9968.3	9373.8	10063.0	10743.7	12466.8	17575.8	15344.4
77.5°	8512.2	8874.1	9373.8	10390.4	7314.7	6384.2	6478.9	7125.1	9011.9	14077.9	8598.4
80°	5522.6	5479.5	6444.5	7151.0	5505.4	5677.7	5436.5	5910.3	6530.6	7530.0	4394.0
82.5°	3187.8	3230.9	3635.8	4101.0	3833.9	4385.3	3161.9	5281.4	4661.0	3067.2	1637.0
85°	1792.0	1869.6	2240.1	2843.2	2403.8	1611.1	1318.2	2619.1	2929.3	1257.9	792.6
87.5°	180.9	155.1	301.5	1077.0	654.8	267.1	396.3	628.9	706.5	473.9	232.6
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: P599630
 CATALOG NUMBER: IFLD-L-SA8D-830-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	12130.8	12130.8	12130.8	12130.8	12130.8	12130.8	12130.8	12130.8	12130.8	12130.8	12130.8
2.5°	12604.6	12604.6	12389.2	12027.4	11880.9	11622.5	11269.2	11381.2	11260.6	10821.2	10709.2
5°	12087.7	11674.2	11226.1	10674.7	10356.0	9701.2	9494.4	9123.9	9184.2	8813.8	8831.0
7.5°	11010.8	10683.4	9925.2	9201.5	8572.5	8003.9	7202.7	6901.1	6608.2	6461.7	6634.0
10°	10381.8	9770.1	8736.2	7788.5	6952.8	6444.5	5910.3	5496.8	5117.7	4833.4	4773.0
12.5°	9925.2	9382.4	8133.1	6978.6	6323.9	5910.3	5419.2	4850.6	4480.1	3989.0	3842.6
15°	9787.3	9123.9	7805.7	6659.9	6022.3	5341.7	4781.7	4221.6	3739.2	3222.2	3041.3
17.5°	10261.2	9494.4	7797.1	6401.4	5505.4	4773.0	3997.6	3368.7	2877.6	2403.8	2291.8
20°	11062.4	9890.7	8047.0	6246.3	5014.3	4032.1	3153.3	2524.4	1973.0	1662.8	1585.3
22.5°	11975.7	10562.7	8072.8	5832.8	4523.2	3291.2	2300.4	1662.8	1352.7	1206.2	1163.1
25°	13095.7	11639.7	8383.0	5496.8	3946.0	2498.5	1637.0	1275.1	1094.2	1008.0	990.8
27.5°	14017.6	12389.2	8719.0	5143.5	3377.3	1852.4	1283.7	1042.5	947.7	861.6	852.9
30°	14973.9	13250.8	8813.8	4928.1	2886.2	1525.0	1102.8	921.9	818.5	775.4	766.8
32.5°	15809.6	14189.9	9115.3	4574.9	2421.0	1344.0	999.4	827.1	758.2	689.2	680.6
35°	16886.6	14732.7	9261.8	4385.3	2248.7	1214.8	913.3	758.2	654.8	611.7	594.5
37.5°	18041.1	15258.2	9356.6	4238.9	2102.2	1137.3	861.6	715.1	620.3	560.0	542.8
40°	19118.0	15999.2	9218.7	4058.0	1990.2	1042.5	827.1	663.4	577.2	516.9	491.1
42.5°	19945.1	16722.9	9175.6	3885.6	1869.6	1008.0	784.0	637.6	542.8	473.9	465.2
45°	20410.4	17214.0	8874.1	3747.8	1774.8	1025.3	766.8	603.1	516.9	456.6	422.2
47.5°	20298.4	17593.1	8951.6	3704.7	1645.6	956.3	758.2	577.2	473.9	422.2	396.3
50°	20918.7	18359.9	8822.4	3566.9	1550.8	861.6	827.1	577.2	465.2	404.9	379.1
52.5°	21022.1	19057.7	9098.1	3317.0	1404.3	792.6	818.5	568.6	448.0	387.7	353.2
55°	21883.7	19867.6	9632.3	3179.2	1283.7	689.2	749.6	551.4	404.9	353.2	336.0
57.5°	23055.4	21547.6	9976.9	3049.9	1120.0	603.1	628.9	542.8	370.5	327.4	301.5
60°	24184.0	22219.7	10002.7	2817.3	964.9	542.8	491.1	542.8	344.6	292.9	267.1
62.5°	25028.4	22219.7	9830.4	2619.1	844.3	482.5	430.8	516.9	310.2	258.5	241.2
65°	24571.7	21625.2	9382.4	2455.4	766.8	422.2	370.5	396.3	275.7	224.0	206.8
67.5°	23753.2	19772.8	8391.6	2257.3	758.2	370.5	318.8	292.9	241.2	198.2	180.9
70°	22443.7	17274.3	6987.3	2033.3	740.9	336.0	284.3	249.9	215.4	172.3	155.1
72.5°	18084.2	14267.5	5738.0	1904.1	723.7	292.9	241.2	215.4	180.9	146.5	129.2
75°	12527.1	9115.3	4419.8	1628.4	706.5	267.1	224.0	189.5	155.1	120.6	112.0
77.5°	7512.8	6091.2	2851.8	1223.4	465.2	215.4	189.5	146.5	129.2	103.4	94.8
80°	3515.2	2877.6	1154.5	473.9	224.0	155.1	129.2	112.0	103.4	86.2	77.5
82.5°	1378.5	1214.8	560.0	275.7	180.9	120.6	103.4	94.8	86.2	68.9	60.3
85°	740.9	654.8	267.1	189.5	129.2	86.2	86.2	77.5	68.9	60.3	51.7
87.5°	163.7	120.6	112.0	112.0	94.8	68.9	68.9	60.3	51.7	43.1	34.5
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: P599630
 CATALOG NUMBER: IFLD-L-SA8D-830-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	12130.8	12130.8	12130.8	12130.8	12130.8	12130.8	12130.8	12130.8	12130.8	12130.8	12130.8
2.5°	10648.9	10778.1	10571.4	10700.6	10519.7	10657.5	10674.7	10545.5	10580.0	10752.3	10829.8
5°	9072.2	8986.1	8796.5	8736.2	8744.8	8632.8	8675.9	8736.2	8831.0	8882.7	9037.8
7.5°	6539.2	6737.4	6728.8	6875.3	6883.9	6866.6	6746.0	6487.6	6573.7	6504.8	6590.9
10°	4678.3	4764.4	4928.1	5022.9	5195.2	5100.4	4824.7	4721.4	4669.7	4661.0	4747.2
12.5°	3739.2	3532.4	3515.2	3549.6	3635.8	3523.8	3385.9	3265.3	3325.6	3446.2	3541.0
15°	2894.8	2722.5	2498.5	2464.1	2481.3	2429.6	2283.1	2128.1	2171.1	2291.8	2360.7
17.5°	2222.8	2024.7	1869.6	1766.2	1731.7	1550.8	1335.4	1206.2	1171.7	1163.1	1223.4
20°	1499.1	1464.7	1438.8	1309.6	1309.6	1051.1	870.2	775.4	775.4	792.6	801.3
22.5°	1120.0	1077.0	1085.6	1059.7	990.8	784.0	689.2	663.4	663.4	680.6	680.6
25°	973.6	913.3	896.0	887.4	818.5	672.0	603.1	577.2	577.2	594.5	594.5
27.5°	827.1	809.9	784.0	749.6	689.2	577.2	534.2	508.3	516.9	525.6	516.9
30°	758.2	715.1	680.6	680.6	611.7	516.9	482.5	465.2	448.0	465.2	473.9
32.5°	672.0	646.2	628.9	603.1	525.6	456.6	422.2	404.9	396.3	396.3	404.9
35°	577.2	577.2	560.0	525.6	456.6	413.5	370.5	353.2	344.6	353.2	353.2
37.5°	516.9	491.1	499.7	465.2	404.9	361.9	318.8	301.5	301.5	292.9	301.5
40°	482.5	439.4	413.5	396.3	361.9	310.2	275.7	258.5	249.9	249.9	249.9
42.5°	430.8	396.3	344.6	336.0	327.4	267.1	224.0	215.4	206.8	198.2	198.2
45°	404.9	353.2	310.2	267.1	267.1	224.0	189.5	172.3	163.7	155.1	163.7
47.5°	370.5	318.8	267.1	224.0	215.4	180.9	146.5	129.2	120.6	120.6	120.6
50°	353.2	284.3	232.6	189.5	163.7	146.5	112.0	94.8	86.2	86.2	86.2
52.5°	327.4	267.1	206.8	163.7	129.2	112.0	86.2	68.9	60.3	60.3	60.3
55°	292.9	241.2	180.9	137.8	112.0	86.2	60.3	43.1	34.5	34.5	34.5
57.5°	275.7	215.4	155.1	120.6	86.2	60.3	34.5	25.8	25.8	17.2	25.8
60°	249.9	189.5	129.2	94.8	68.9	43.1	25.8	8.6	8.6	8.6	8.6
62.5°	215.4	163.7	112.0	77.5	51.7	25.8	8.6	0.0	0.0	0.0	0.0
65°	180.9	129.2	86.2	60.3	34.5	8.6	0.0	0.0	0.0	0.0	0.0
67.5°	155.1	112.0	68.9	43.1	25.8	0.0	0.0	0.0	0.0	0.0	0.0
70°	137.8	94.8	51.7	34.5	8.6	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	112.0	77.5	43.1	17.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	94.8	60.3	25.8	8.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	77.5	43.1	17.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	60.3	34.5	8.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	51.7	25.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	34.5	8.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	25.8	8.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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: P599630
 CATALOG NUMBER: IFLD-L-SA8D-830-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	358°	360°
0°	12130.8	12130.8	12130.8	12130.8	12130.8	12130.8	12130.8	12130.8	12130.8	12130.8
2.5°	10941.8	10890.1	11148.6	11570.8	11786.2	12208.3	12311.7	12578.8	12509.9	12604.6
5°	9055.0	9158.4	9537.5	10157.8	10381.8	10993.5	11570.8	12148.0	12518.5	12699.4
7.5°	6720.2	7064.8	7530.0	8098.7	8675.9	9477.2	10459.4	11131.4	11493.2	11880.9
10°	5005.7	5376.1	5910.3	6470.3	7409.4	8305.4	9287.6	10123.3	10433.5	10795.4
12.5°	3937.3	4514.6	5134.9	5738.0	6298.0	7151.0	8365.8	9580.6	9916.6	10192.3
15°	2739.8	3446.2	4333.7	5117.7	5901.7	6642.6	7900.5	9373.8	9830.4	10295.7
17.5°	1516.3	2076.4	3093.0	4195.8	5350.3	6487.6	8055.6	9752.9	10442.1	10769.5
20°	878.8	1102.8	1826.5	3136.1	4661.0	6151.5	8133.1	10468.0	11381.2	11544.9
22.5°	723.7	801.3	1033.9	1964.4	3816.7	5936.2	8529.5	11467.4	12397.9	12785.6
25°	620.3	680.6	801.3	1180.3	2886.2	5479.5	8779.3	12716.6	13578.2	14000.4
27.5°	551.4	611.7	706.5	870.2	1964.4	4850.6	9192.9	13845.3	14706.8	15284.1
30°	482.5	534.2	628.9	740.9	1361.3	4144.1	9546.1	14672.4	15887.2	16068.1
32.5°	430.8	473.9	542.8	637.6	1008.0	3144.7	9830.4	15525.3	16550.6	16946.9
35°	370.5	422.2	465.2	542.8	766.8	2369.3	9658.1	16188.7	17524.2	17998.0
37.5°	327.4	361.9	404.9	456.6	646.2	1852.4	9304.9	16981.4	18359.9	18799.3
40°	275.7	301.5	353.2	404.9	585.9	1430.2	8899.9	17937.7	19531.6	20307.0
42.5°	232.6	258.5	292.9	379.1	482.5	1059.7	8081.4	18678.6	20479.3	21134.1
45°	180.9	215.4	267.1	379.1	387.7	784.0	7237.1	19230.0	21013.5	21340.9
47.5°	137.8	172.3	258.5	327.4	310.2	542.8	6237.7	19859.0	21564.9	21866.4
50°	103.4	137.8	292.9	284.3	258.5	413.5	5608.8	20298.4	21599.3	21763.0
52.5°	68.9	103.4	241.2	215.4	215.4	361.9	5436.5	20281.1	21685.5	21332.3
55°	51.7	77.5	137.8	155.1	189.5	318.8	5281.4	20927.3	21711.3	21961.2
57.5°	34.5	60.3	94.8	120.6	163.7	275.7	4962.6	21702.7	22512.6	22641.8
60°	17.2	43.1	68.9	94.8	137.8	241.2	4514.6	22271.4	23486.2	23624.0
62.5°	8.6	25.8	51.7	77.5	112.0	189.5	4049.3	21366.7	23064.0	23305.2
65°	0.0	17.2	34.5	51.7	68.9	137.8	3291.2	19290.4	21392.6	22280.0
67.5°	0.0	0.0	17.2	34.5	43.1	103.4	2481.3	17550.0	19850.4	21056.6
70°	0.0	0.0	8.6	8.6	25.8	77.5	1585.3	14534.5	17722.3	18385.7
72.5°	0.0	0.0	0.0	0.0	8.6	51.7	921.9	10795.4	13888.4	15120.4
75°	0.0	0.0	0.0	0.0	0.0	43.1	465.2	6944.2	9666.7	11320.9
77.5°	0.0	0.0	0.0	0.0	0.0	34.5	249.9	4480.1	7125.1	8512.2
80°	0.0	0.0	0.0	0.0	0.0	8.6	146.5	2601.9	4557.7	5522.6
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	60.3	1275.1	2722.5	3187.8
85°	0.0	0.0	0.0	0.0	0.0	0.0	17.2	680.6	1361.3	1792.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.8	94.8	180.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)