

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: STREETWORKS

Report Number: P722840

Luminaire Tested: **IFLD-M-SA4E-727-U-11**

Issue Date: 01/11/2023

Test Information

Test Method: LM-79-2019
Report Number: P722840
Test Lab: INNOVATION CENTER(G2)
Issue Date: 01/11/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: IFLD-M-SA4E-727-U-11
Description: Infrastructure Flood – Middle Tier Light Square Luminaire w/ Nema 1 distribution lens
Light Source: (64) 2700K CCT, 70 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

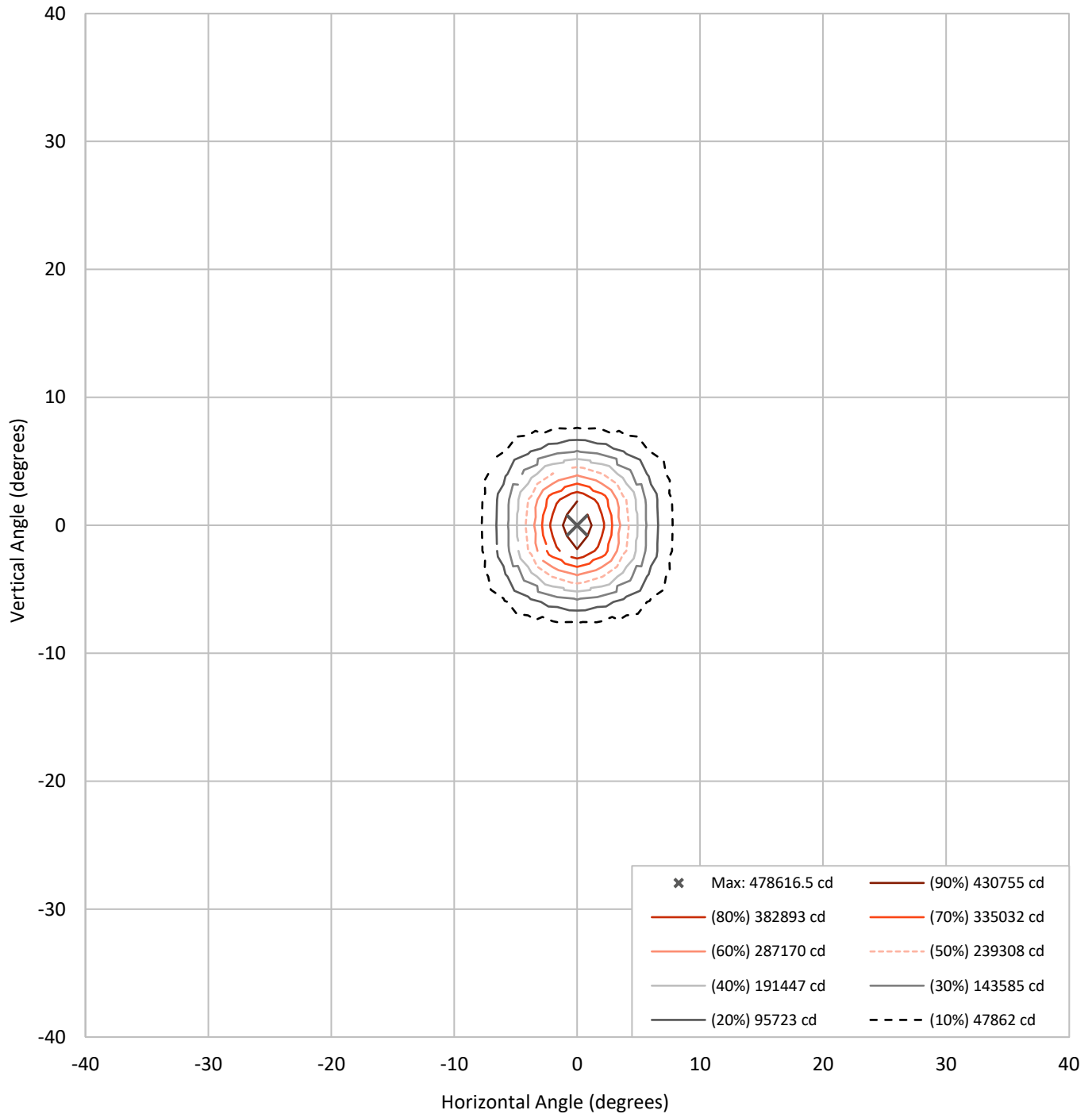
Lumens per Lamp:	N/A	NEMA Type:	1H x 1V
Luminaire Lumens:	15969 lumens	Max Intensity:	478616.5 candela
Efficiency:	N/A	Max Intensity Angle:	0°H x 0°V
Efficacy:	50.7 lumens/watt		
Luminous Opening:	Rectangular (W 2' x L: 0.5' x H: 0')		
Beam Angle (50%):	8.3°H x 8.9°V	Field Angle (10%):	14.9°H x 14.6°V
Beam Lumens:	5380 lumens	Field Lumens:	8498 lumens
Beam Efficiency:	33.7%	Field Efficiency:	53.2%

Input Watts (W): 314.8
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: 28.75 FT



REPORT NUMBER: P722840
CATALOG NUMBER: IFLD-M-SA4E-727-U-11

Iso-Candela Plot





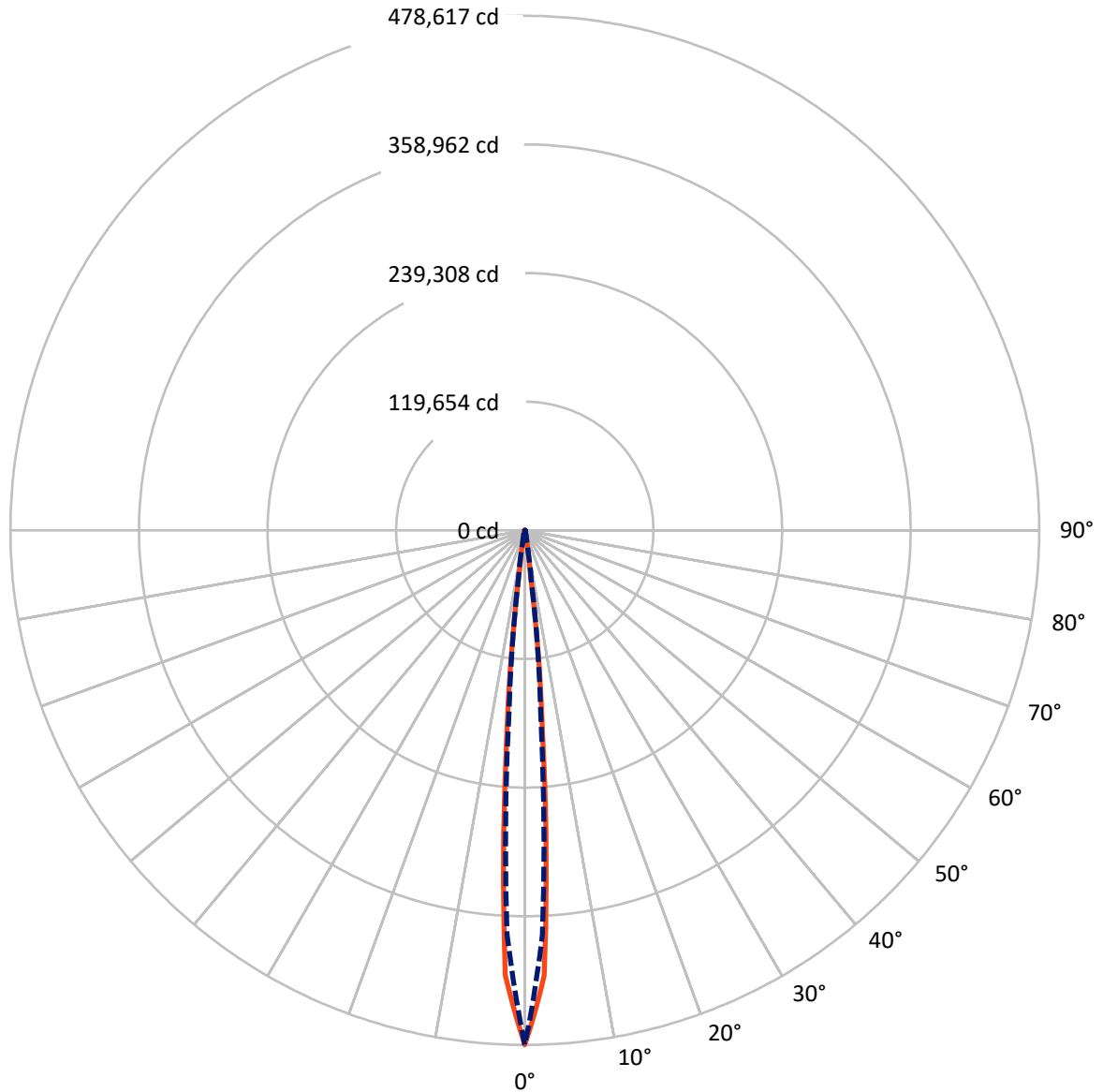
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 CATALOG NUMBER: IFLD-M-SA4E-727-U-11

Lumen Table

90	0.1	0.6	2.2	5.0	8.7	5.0	2.2	0.6	0.1										
80	0.1	0.6	2.2	5.0	8.7	5.0	2.2	0.6	0.1										
70	0.3	0.4	1.1	2.2	3.4	4.3	6.9	12.8	12.8	6.9	4.3	3.4	2.2	1.1	0.4	0.3			
60		0.8	2.0	4.1	6.3	8.3	11.1	15.6	15.6	11.1	8.3	6.3	4.1	2.0	0.8				
50	1.1	1.4	3.0	6.2	10.4	15.4	20.0	24.5	24.5	20.0	15.4	10.4	6.2	3.0	1.4	1.1			
40		2.2	4.3	8.9	16.1	21.6	23.9	25.5	25.5	23.9	21.6	16.1	8.9	4.3	2.2				
30	2.2	3.3	5.9	12.5	19.7	22.6	29.9	39.9	39.9	29.9	22.6	19.7	12.5	5.9	3.3	2.2			
20		4.4	8.3	16.5	21.7	29.1	58.3	112.0	112.0	58.3	29.1	21.7	16.5	8.3	4.4				
10	2.5	5.0	10.0	18.7	22.7	38.2	116.0	3117.8	3117.8	116.0	38.2	22.7	18.7	10.0	5.0	2.5			
0		5.0	10.0	18.7	22.7	38.2	116.0	3117.8	3117.8	116.0	38.2	22.7	18.7	10.0	5.0				
-10	2.2	4.4	8.3	16.5	21.7	29.1	58.3	112.0	112.0	58.3	29.1	21.7	16.5	8.3	4.4	2.2			
-20		3.3	5.9	12.5	19.7	22.6	29.9	39.9	39.9	29.9	22.6	19.7	12.5	5.9	3.3				
-30	1.1	2.2	4.3	8.9	16.1	21.6	23.9	25.5	25.5	23.9	21.6	16.1	8.9	4.3	2.2	1.1			
-40		1.4	3.0	6.2	10.4	15.4	20.0	24.5	24.5	20.0	15.4	10.4	6.2	3.0	1.4				
-50	0.3	0.8	2.0	4.1	6.3	8.3	11.1	15.6	15.6	11.1	8.3	6.3	4.1	2.0	0.8	0.3			
-60		0.4	1.1	2.2	3.4	4.3	6.9	12.8	12.8	6.9	4.3	3.4	2.2	1.1	0.4				
-70	0.1	0.6	2.2	5.0	8.7	5.0	2.2	0.6	0.1							0.1			
-80		0.1	0.6	2.2	5.0	8.7	5.0	2.2	0.6	0.1									
-90	0.1	0.6	2.2	5.0	8.7	5.0	2.2	0.6	0.1										
	-90	-80	-70	-60	-50	-40	-30	-20	-10	0	10	20	30	40	50	60	70	80	90

REPORT NUMBER: P722840
CATALOG NUMBER: IFLD-M-SA4E-727-U-11

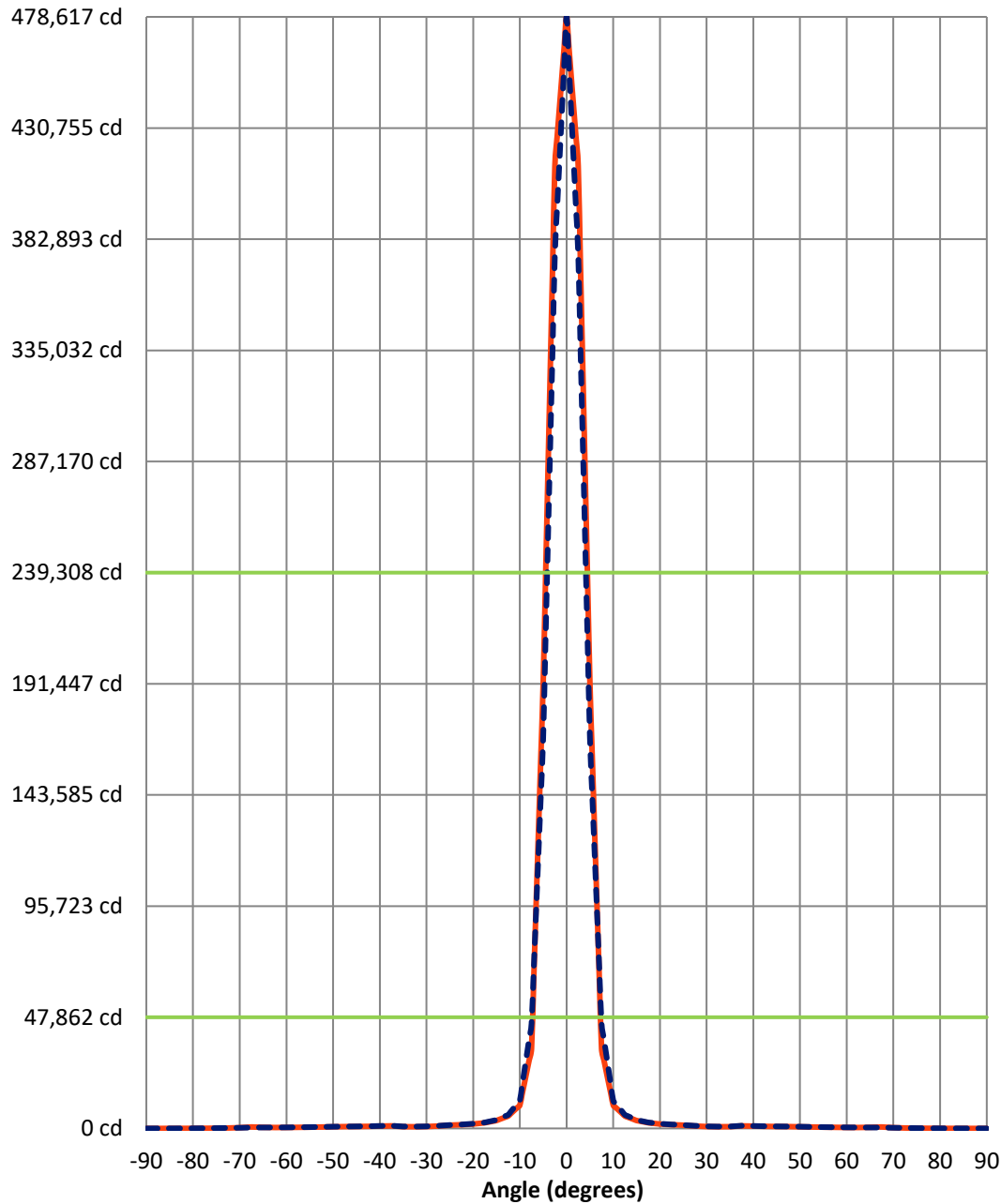
Luminous Intensity Polar Plot



— Vertical Distribution Through 0-Deg - - - Horizontal Distribution Through 0-Deg

REPORT NUMBER: P722840
CATALOG NUMBER: IFLD-M-SA4E-727-U-11

Luminous Intensity Plot



Beam:
H Angle: 8.3°
V Angle: 8.9°
Lumens: 5380
Efficiency: 33.7%

Field:
H Angle: 14.9°
V Angle: 14.6°
Lumens: 8498
Efficiency: 53.2%

Spill:
Lumens: 7471
Efficiency: 46.8%

— Vertical Distribution through 0-Deg
- - Horizontal Distribution through 0-Deg



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FIELD
 BEAM

CANDELA DISTRIBUTION:

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	25°
90°	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
85°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
82.5°	12.5	12.5	12.5	12.5	12.5	12.5	12.5	8.3	8.3	8.3	8.3
80°	33.4	33.4	33.4	33.4	33.4	33.4	29.2	29.2	25.0	20.9	20.9
77.5°	62.6	66.7	70.9	66.7	62.6	62.6	58.4	50.1	45.9	37.5	33.4
75°	104.3	112.6	116.8	112.6	108.5	104.3	95.9	83.4	70.9	58.4	50.1
72.5°	187.7	191.9	191.9	183.5	171.0	162.7	150.2	125.1	104.3	83.4	70.9
70°	325.4	337.9	342.0	300.3	262.8	229.4	196.0	166.8	133.5	104.3	91.8
67.5°	625.7	609.0	579.8	467.2	362.9	271.1	208.6	183.5	154.3	125.1	116.8
65°	471.4	458.8	442.2	383.8	325.4	262.8	221.1	196.0	175.2	150.2	146.0
62.5°	396.3	396.3	387.9	350.4	312.8	267.0	237.8	221.1	200.2	179.4	179.4
60°	413.0	421.3	413.0	375.4	333.7	292.0	267.0	250.3	229.4	216.9	216.9
57.5°	467.2	471.4	458.8	417.1	375.4	329.5	304.5	283.6	262.8	250.3	250.3
55°	538.1	533.9	517.2	475.5	433.8	387.9	362.9	333.7	304.5	292.0	292.0
52.5°	604.8	609.0	592.3	554.8	508.9	463.0	433.8	396.3	362.9	350.4	342.0
50°	700.8	704.9	692.4	654.9	617.3	571.5	525.6	475.5	438.0	421.3	404.6
47.5°	784.2	784.2	771.7	746.7	717.5	675.7	625.7	579.8	538.1	508.9	479.7
45°	821.7	821.7	813.4	800.9	784.2	746.7	696.6	646.5	617.3	600.7	575.6
42.5°	888.5	888.5	867.6	842.6	821.7	784.2	738.3	684.1	675.7	659.1	642.4
40°	996.9	959.4	926.0	896.8	863.4	821.7	780.0	742.5	725.8	704.9	688.3
37.5°	1097.0	1047.0	996.9	951.0	913.5	880.1	825.9	796.7	775.9	750.8	734.1
35°	755.0	738.3	759.2	784.2	821.7	880.1	917.7	876.0	830.1	800.9	780.0
32.5°	721.6	721.6	725.8	725.8	717.5	713.3	750.8	838.4	926.0	880.1	838.4
30°	800.9	817.6	821.7	813.4	784.2	746.7	725.8	721.6	763.3	884.3	917.7
27.5°	1034.5	1047.0	1038.6	1009.4	946.9	859.3	805.0	746.7	734.1	734.1	867.6
25°	1401.5	1397.4	1364.0	1297.3	1201.3	1084.5	967.7	846.8	784.2	746.7	742.5
22.5°	1610.1	1610.1	1585.1	1547.5	1485.0	1368.2	1205.5	1042.8	888.5	800.9	750.8
20°	1893.7	1902.1	1872.9	1802.0	1689.4	1585.1	1464.1	1272.2	1072.0	896.8	796.7
17.5°	2427.7	2419.3	2352.6	2206.6	2010.5	1831.2	1643.5	1497.5	1284.7	1059.5	871.8
15°	3403.7	3378.7	3191.0	2853.1	2486.1	2169.0	1893.7	1651.8	1485.0	1230.5	1001.1
12.5°	5322.5	5251.6	4742.7	3941.8	3236.9	2590.3	2181.6	1856.2	1610.1	1397.4	1126.2
10°	9986.0	9910.9	8346.7	5764.7	4429.9	3245.2	2502.7	2052.3	1731.1	1518.3	1247.2
7.5°	34312.6	29670.0	18366.0	11245.7	5856.4	4021.1	2915.7	2269.2	1864.5	1593.4	1351.5
5°	192098.2	158974.3	84413.4	23041.9	9285.2	4988.8	3312.0	2448.5	1956.3	1647.6	1414.1
2.5°	414408.6	342329.6	164655.6	41758.3	11441.7	5618.7	3541.4	2531.9	2002.2	1672.7	1451.6
0°	478616.5	376333.5	168167.8	45195.4	11988.1	5868.9	3641.5	2569.5	2023.1	1689.4	1464.1



REPORT NUMBER: P722840
 CATALOG NUMBER: IFLD-M-SA4E-727-U-11

CANDELA DISTRIBUTION (continued):

	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°	47.5°	50°	52.5°
90°	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	4.2	4.2	4.2	4.2	4.2
85°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
82.5°	8.3	8.3	8.3	8.3	8.3	8.3	4.2	4.2	4.2	4.2	4.2
80°	16.7	16.7	16.7	16.7	16.7	12.5	12.5	12.5	8.3	8.3	8.3
77.5°	33.4	33.4	29.2	29.2	25.0	25.0	25.0	20.9	16.7	16.7	12.5
75°	50.1	50.1	50.1	45.9	41.7	37.5	37.5	33.4	29.2	25.0	25.0
72.5°	70.9	70.9	70.9	66.7	62.6	58.4	50.1	45.9	41.7	37.5	33.4
70°	91.8	91.8	91.8	87.6	87.6	83.4	75.1	66.7	58.4	50.1	45.9
67.5°	116.8	116.8	116.8	108.5	104.3	100.1	95.9	87.6	79.3	66.7	58.4
65°	146.0	146.0	146.0	133.5	125.1	121.0	112.6	104.3	91.8	83.4	70.9
62.5°	183.5	183.5	175.2	162.7	150.2	137.7	129.3	121.0	108.5	95.9	83.4
60°	216.9	216.9	212.7	196.0	179.4	158.5	150.2	137.7	125.1	112.6	95.9
57.5°	250.3	250.3	241.9	225.2	208.6	191.9	175.2	162.7	146.0	129.3	112.6
55°	287.8	283.6	271.1	254.4	237.8	221.1	208.6	191.9	175.2	154.3	129.3
52.5°	333.7	321.2	300.3	283.6	262.8	246.1	233.6	216.9	200.2	175.2	146.0
50°	387.9	367.1	337.9	312.8	292.0	275.3	258.6	241.9	225.2	196.0	166.8
47.5°	454.7	421.3	387.9	354.6	325.4	304.5	283.6	267.0	241.9	212.7	183.5
45°	533.9	483.9	446.3	404.6	371.2	337.9	312.8	292.0	258.6	225.2	196.0
42.5°	613.2	571.5	517.2	463.0	421.3	379.6	346.2	312.8	279.5	241.9	208.6
40°	667.4	634.0	596.5	538.1	479.7	429.6	383.8	337.9	296.2	258.6	221.1
37.5°	709.1	684.1	650.7	609.0	550.6	488.0	425.5	367.1	317.0	275.3	237.8
35°	755.0	725.8	692.4	659.1	613.2	546.4	467.2	400.4	342.0	292.0	258.6
32.5°	805.0	763.3	730.0	692.4	659.1	604.8	521.4	438.0	367.1	317.0	283.6
30°	863.4	809.2	763.3	725.8	688.3	638.2	575.6	479.7	404.6	350.4	308.7
27.5°	926.0	846.8	796.7	755.0	717.5	671.6	613.2	529.7	450.5	383.8	333.7
25°	867.6	909.3	830.1	784.2	742.5	696.6	646.5	592.3	500.5	425.5	367.1
22.5°	746.7	892.6	888.5	821.7	771.7	730.0	700.8	642.4	558.9	467.2	396.3
20°	755.0	796.7	951.0	859.3	809.2	780.0	750.8	696.6	613.2	504.7	425.5
17.5°	780.0	763.3	876.0	917.7	859.3	821.7	800.9	750.8	663.2	554.8	471.4
15°	846.8	775.9	809.2	967.7	905.2	863.4	850.9	788.4	709.1	609.0	517.2
12.5°	905.2	796.7	780.0	934.4	946.9	901.0	871.8	817.6	746.7	654.9	558.9
10°	1001.1	846.8	792.5	896.8	988.6	934.4	888.5	842.6	775.9	696.6	600.7
7.5°	1076.2	876.0	796.7	867.6	1030.3	959.4	905.2	855.1	800.9	730.0	634.0
5°	1109.6	888.5	792.5	842.6	1076.2	988.6	926.0	867.6	817.6	750.8	650.7
2.5°	1126.2	892.6	788.4	821.7	1122.1	1026.1	934.4	867.6	817.6	755.0	650.7
0°	1134.6	884.3	788.4	834.2	1155.4	1063.7	938.5	867.6	813.4	750.8	642.4



REPORT NUMBER: P722840
 CATALOG NUMBER: IFLD-M-SA4E-727-U-11

CANDELA DISTRIBUTION (continued):

	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77.5°	80°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	4.2	4.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	0.0	0.0
82.5°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
80°	8.3	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
77.5°	12.5	12.5	8.3	8.3	4.2	4.2	4.2	4.2	4.2	4.2	4.2
75°	20.9	16.7	16.7	12.5	12.5	8.3	4.2	4.2	4.2	4.2	4.2
72.5°	29.2	25.0	20.9	16.7	16.7	12.5	8.3	4.2	4.2	4.2	4.2
70°	37.5	33.4	25.0	20.9	20.9	16.7	12.5	8.3	4.2	4.2	4.2
67.5°	50.1	41.7	33.4	25.0	25.0	20.9	16.7	12.5	8.3	4.2	4.2
65°	62.6	50.1	41.7	33.4	29.2	25.0	20.9	16.7	12.5	4.2	4.2
62.5°	70.9	62.6	50.1	41.7	37.5	29.2	25.0	20.9	12.5	8.3	4.2
60°	83.4	70.9	58.4	50.1	45.9	37.5	29.2	25.0	16.7	12.5	4.2
57.5°	95.9	79.3	66.7	58.4	54.2	45.9	37.5	29.2	20.9	12.5	8.3
55°	108.5	91.8	75.1	70.9	62.6	54.2	45.9	33.4	25.0	16.7	8.3
52.5°	121.0	100.1	87.6	83.4	75.1	62.6	50.1	41.7	29.2	20.9	12.5
50°	137.7	112.6	100.1	95.9	83.4	70.9	58.4	50.1	37.5	25.0	12.5
47.5°	154.3	125.1	116.8	108.5	95.9	83.4	66.7	58.4	41.7	29.2	16.7
45°	166.8	146.0	133.5	125.1	108.5	95.9	79.3	66.7	45.9	33.4	16.7
42.5°	175.2	162.7	154.3	141.8	125.1	104.3	87.6	75.1	54.2	37.5	20.9
40°	196.0	183.5	171.0	158.5	141.8	116.8	100.1	83.4	62.6	41.7	20.9
37.5°	216.9	200.2	187.7	175.2	158.5	133.5	116.8	91.8	70.9	45.9	25.0
35°	237.8	221.1	204.4	191.9	175.2	154.3	129.3	104.3	79.3	50.1	29.2
32.5°	258.6	237.8	221.1	204.4	196.0	171.0	141.8	112.6	87.6	54.2	29.2
30°	279.5	254.4	237.8	225.2	216.9	191.9	158.5	125.1	95.9	62.6	33.4
27.5°	300.3	271.1	250.3	250.3	241.9	212.7	171.0	137.7	104.3	66.7	37.5
25°	321.2	287.8	279.5	275.3	271.1	233.6	187.7	150.2	108.5	75.1	37.5
22.5°	342.0	317.0	304.5	300.3	292.0	254.4	204.4	158.5	116.8	79.3	41.7
20°	375.4	350.4	333.7	321.2	317.0	279.5	221.1	171.0	125.1	79.3	41.7
17.5°	417.1	379.6	358.7	346.2	337.9	300.3	237.8	183.5	129.3	79.3	41.7
15°	454.7	413.0	383.8	367.1	358.7	325.4	250.3	187.7	133.5	79.3	41.7
12.5°	492.2	442.2	408.8	392.1	379.6	350.4	262.8	191.9	133.5	79.3	41.7
10°	525.6	471.4	438.0	413.0	396.3	358.7	267.0	196.0	133.5	79.3	41.7
7.5°	554.8	496.4	450.5	413.0	396.3	367.1	267.0	200.2	133.5	79.3	45.9
5°	558.9	496.4	446.3	413.0	400.4	371.2	271.1	200.2	133.5	75.1	41.7
2.5°	563.1	496.4	446.3	413.0	400.4	371.2	271.1	200.2	133.5	75.1	41.7
0°	558.9	492.2	442.2	413.0	400.4	371.2	271.1	200.2	129.3	70.9	41.7



REPORT NUMBER: P722840
 CATALOG NUMBER: IFLD-M-SA4E-727-U-11

CANDELA DISTRIBUTION (continued):

	82.5°	85°	87.5°	90°
90°	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0
80°	4.2	0.0	0.0	0.0
77.5°	4.2	0.0	0.0	0.0
75°	4.2	4.2	0.0	0.0
72.5°	4.2	4.2	0.0	0.0
70°	4.2	4.2	0.0	0.0
67.5°	4.2	4.2	0.0	0.0
65°	4.2	4.2	0.0	0.0
62.5°	4.2	4.2	0.0	0.0
60°	4.2	4.2	0.0	0.0
57.5°	4.2	4.2	4.2	0.0
55°	4.2	4.2	4.2	0.0
52.5°	4.2	4.2	4.2	0.0
50°	4.2	4.2	4.2	0.0
47.5°	4.2	4.2	4.2	0.0
45°	4.2	4.2	4.2	0.0
42.5°	8.3	4.2	4.2	0.0
40°	8.3	4.2	4.2	0.0
37.5°	12.5	4.2	4.2	0.0
35°	12.5	4.2	4.2	0.0
32.5°	12.5	4.2	4.2	0.0
30°	12.5	4.2	4.2	0.0
27.5°	16.7	4.2	4.2	0.0
25°	16.7	4.2	4.2	0.0
22.5°	16.7	4.2	4.2	0.0
20°	16.7	4.2	4.2	0.0
17.5°	16.7	4.2	4.2	0.0
15°	20.9	4.2	4.2	0.0
12.5°	20.9	4.2	4.2	0.0
10°	20.9	4.2	4.2	0.0
7.5°	20.9	4.2	4.2	0.0
5°	20.9	4.2	4.2	0.0
2.5°	20.9	4.2	4.2	0.0
0°	20.9	4.2	4.2	0.0

(END OF REPORT)