

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: McGRAW-EDISON

Report Number: P299623

Luminaire Tested: **GLNA-AF-09-LED-E1-SL2-7027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299623
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24287)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-09-LED-E1-SL2-7027-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II
w/Spill Control WITH HOUSESIDE SHEILD OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 34786.3 lumens
Efficiency: N/A
Efficacy: 69.4 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G5

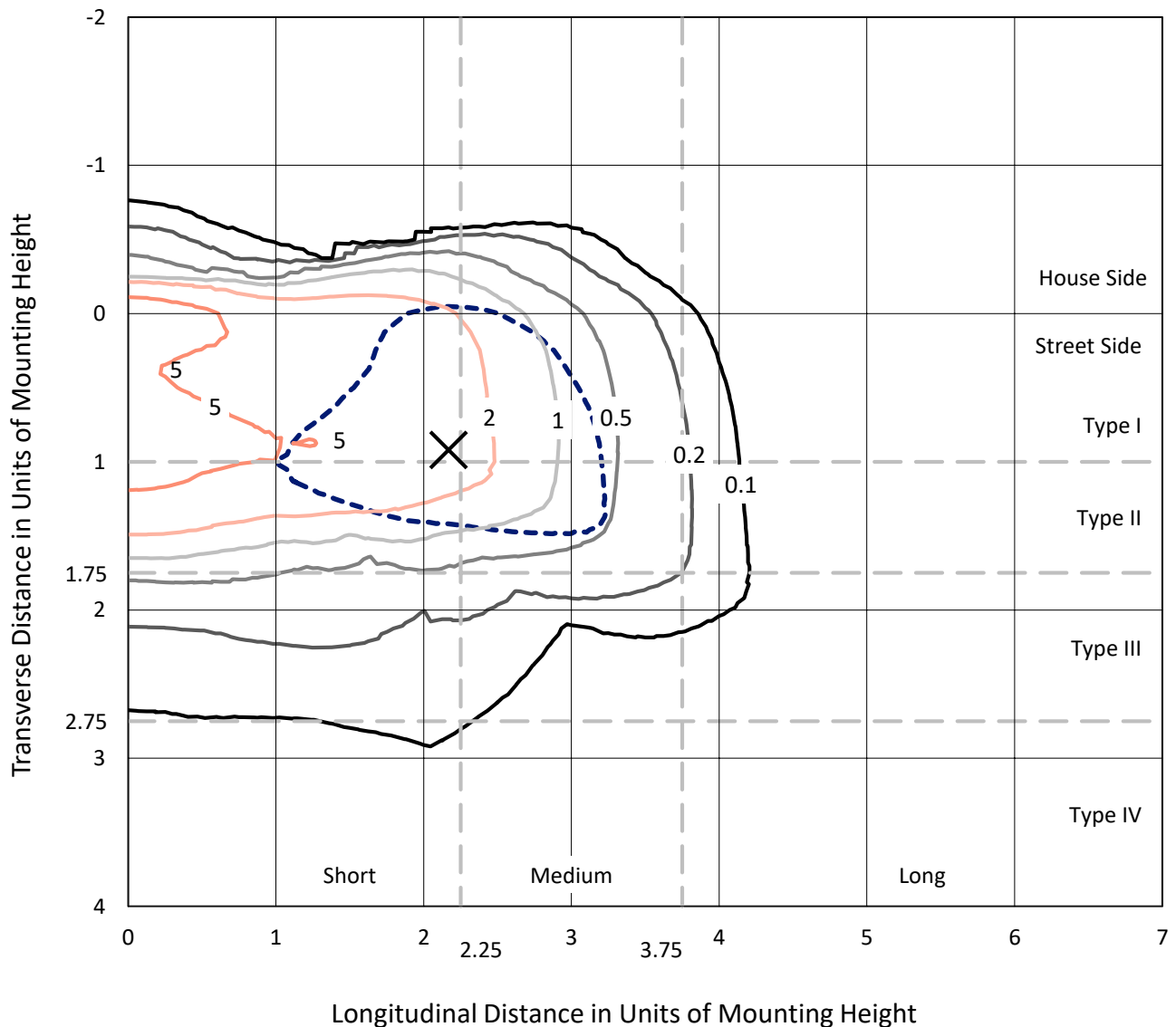
Input Watts (W): 501
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P299623
 CATALOG NUMBER: GLNA-AF-09-LED-E1-SL2-7027-HSS

Iso-Footcandle Lines of Horizontal Illumination

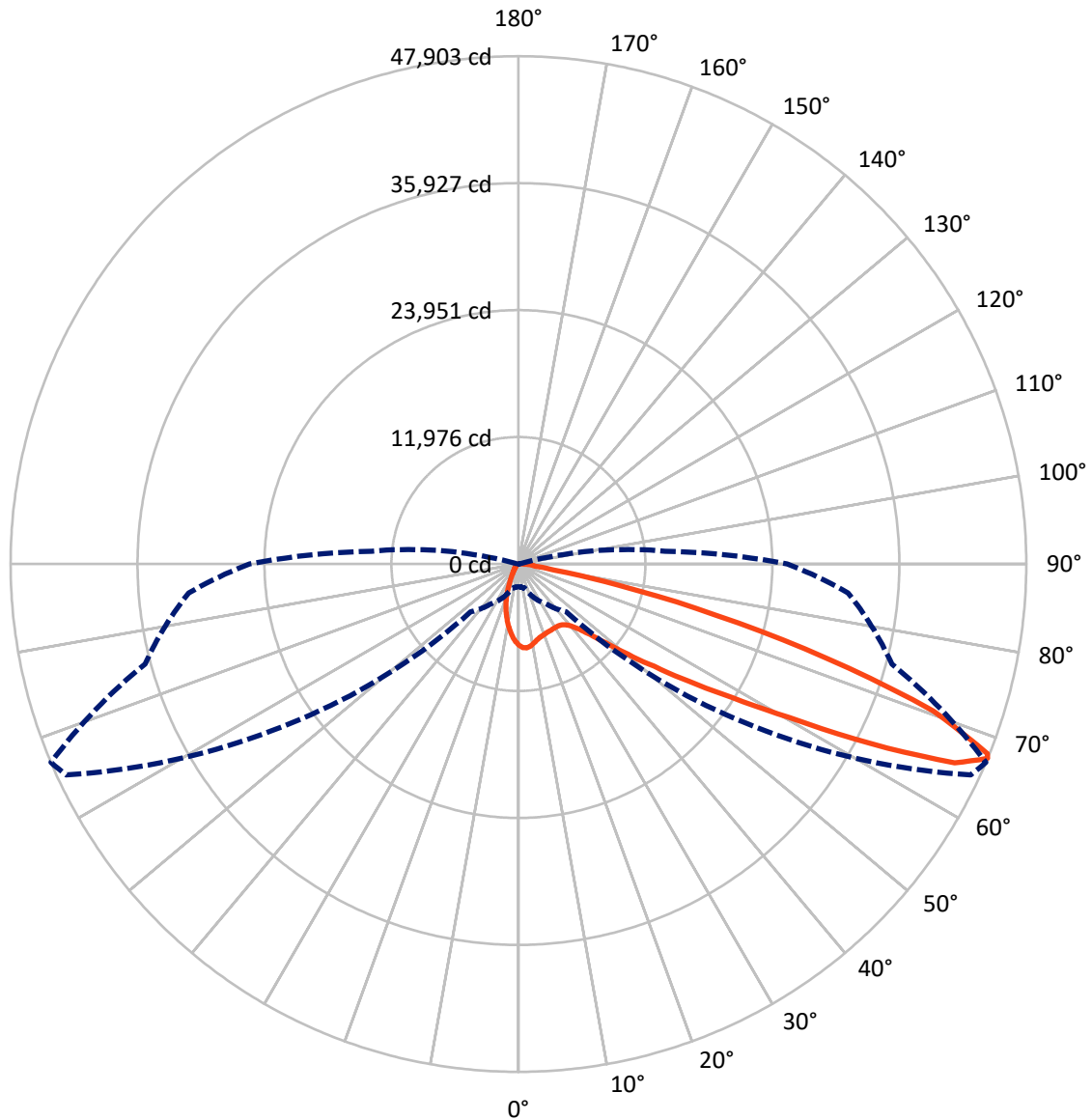
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 8.5 fc
 Type II - Short - Semi-Cutoff

REPORT NUMBER: P299623
CATALOG NUMBER: GLNA-AF-09-LED-E1-SL2-7027-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 67-Deg Vertical

REPORT NUMBER: P299623

CATALOG NUMBER: GLNA-AF-09-LED-E1-SL2-7027-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3611.9	0.0	3611.9
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	31174.5	0.0	31174.5
	% Fixture	89.6	0.0	89.6
Total	Lumens	34786.3	0.0	34786.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	624.2	1.8
10°-20°	1328.6	3.8
20°-30°	1931.7	5.6
30°-40°	3013.5	8.7
40°-50°	5338.2	15.3
50°-60°	8447.2	24.3
60°-70°	9675.1	27.8
70°-80°	4013.2	11.5
80°-90°	414.5	1.2
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°-90°	34786.3	100.0
0°-180°	34786.3	100.0



REPORT NUMBER: P299623

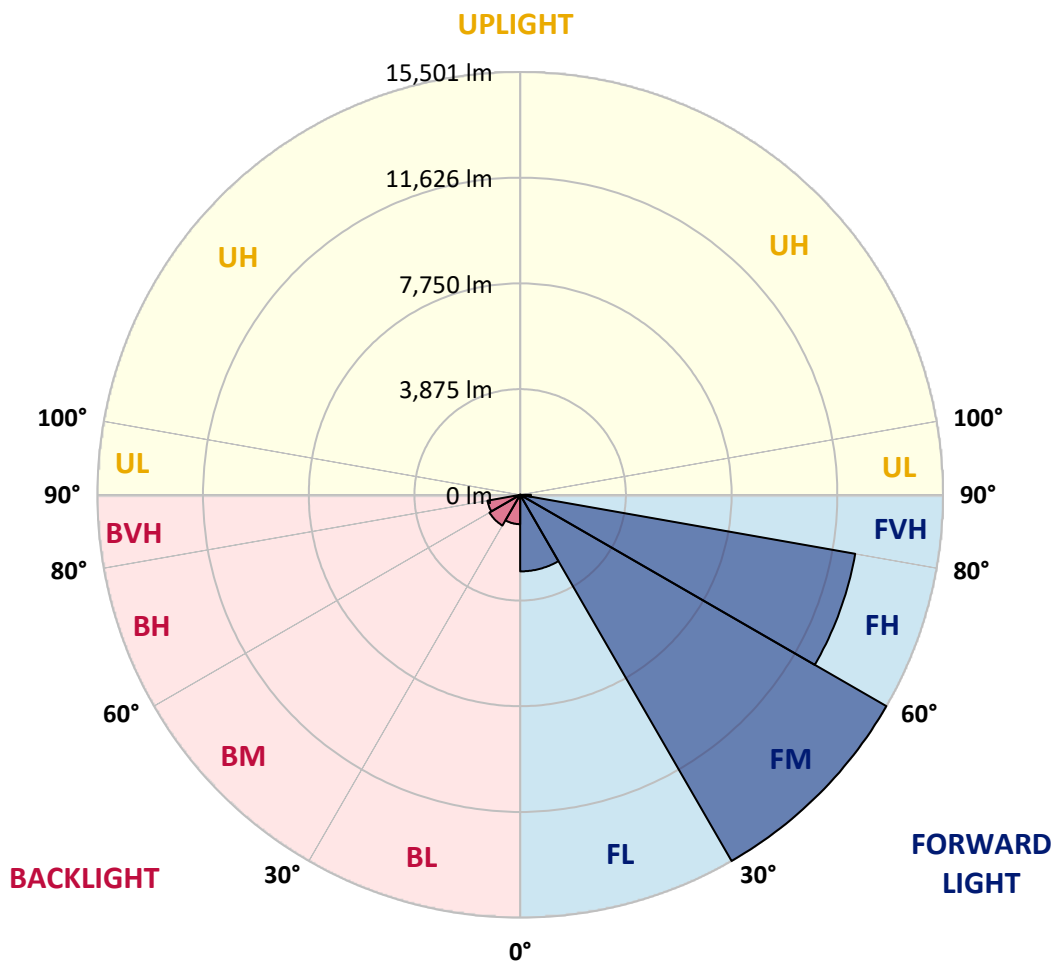
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2806.7	8.1			
FM (30°-60°)	15500.9	44.6			
FH (60°-80°)	12471.0	35.9			G5
FVH (80°-90°)	395.9	1.1			G3/500
BL (0°-30°)	1077.8	3.1	B3/2500		
BM (30°-60°)	1298.1	3.7	B2/2500		
BH (60°-80°)	1217.3	3.5	B3/2500		G3/2500
BVH (80°-90°)	18.7	0.1			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type II Short





REPORT NUMBER: P299623

CATALOG NUMBER: GLNA-AF-09-LED-E1-SL2-7027-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	7671.7	7671.7	7671.7	7671.7	7671.7	7671.7	7671.7	7671.7	7671.7	7671.7	7671.7
2.5°	7931.4	7947.6	7945.6	7957.8	7986.2	7988.2	7959.8	7905.0	7892.8	7821.8	7698.0
5°	7314.6	7361.2	7389.6	7505.3	7635.1	7791.4	7909.1	7951.7	7945.6	7894.9	7708.2
7.5°	6610.5	6657.2	6689.6	6825.6	6998.0	7265.9	7572.2	7823.8	7846.2	7900.9	7700.1
10°	6141.8	6149.9	6194.6	6324.4	6505.0	6778.9	7144.1	7584.4	7651.4	7852.3	7679.8
12.5°	5756.3	5762.4	5821.2	5961.2	6154.0	6429.9	6813.4	7322.7	7426.2	7791.4	7675.7
15°	5482.4	5504.7	5557.4	5703.5	5908.5	6182.4	6576.0	7129.9	7253.7	7769.1	7712.3
17.5°	5391.1	5415.4	5431.6	5537.2	5723.8	5991.7	6395.4	7004.1	7144.1	7781.2	7783.3
20°	5486.4	5504.7	5468.2	5494.5	5610.2	5849.6	6243.3	6896.6	7063.0	7795.4	7874.6
22.5°	5841.5	5849.6	5750.2	5634.5	5614.3	5746.1	6123.5	6811.4	6989.9	7834.0	7982.1
25°	6450.2	6436.0	6273.7	6024.1	5788.8	5727.9	6052.5	6758.6	6953.4	7874.6	8093.7
27.5°	7184.7	7205.0	6981.8	6618.6	6170.2	5849.6	6042.4	6736.3	6937.2	7903.0	8191.1
30°	8077.5	8105.9	7850.2	7393.7	6750.5	6149.9	6135.7	6732.2	6927.0	7884.7	8199.2
32.5°	8988.5	9023.0	8822.1	8351.4	7525.6	6653.1	6346.7	6776.9	6947.3	7821.8	8152.5
35°	9942.1	9990.8	9856.9	9453.1	8576.6	7379.5	6718.0	6912.8	7042.7	7815.7	8105.9
37.5°	11259.0	11303.6	11052.0	10623.9	9848.8	8353.4	7314.6	7168.5	7267.9	7913.1	8118.1
40°	13225.1	13219.0	12569.7	11914.3	11246.8	9591.1	8152.5	7631.1	7681.8	8207.3	8268.2
42.5°	15367.7	15357.5	14397.8	13401.6	12799.0	11114.9	9254.3	8430.5	8396.0	8749.1	8657.8
45°	17019.3	17017.3	16234.1	15112.0	14667.7	12863.9	10678.7	9542.4	9489.7	9629.7	9376.0
47.5°	17723.4	17735.5	17341.9	16552.6	16739.3	15229.7	12474.3	11153.4	11074.3	11017.5	10632.0
50°	17175.5	17199.9	17232.3	17078.1	18259.0	18409.2	14882.8	13423.9	13385.4	13131.7	12529.1
52.5°	15386.0	15509.7	15891.2	16380.2	18786.6	21460.8	18658.7	16244.2	16037.3	15767.4	15103.9
55°	12370.8	12506.8	13231.1	14418.1	18001.3	23465.5	23950.4	19880.2	19535.3	18729.8	17772.1
57.5°	8187.0	8398.1	9449.1	10958.7	15720.7	23788.1	29229.9	24926.3	23725.2	21519.6	20440.2
60°	4510.5	4713.4	5853.7	7221.2	11354.3	22193.3	32780.6	31496.3	29373.9	24638.2	23680.5
62.5°	2777.7	2887.3	3729.3	5001.5	6809.3	17516.4	33515.1	39752.3	37295.2	28653.6	27594.5
65°	2211.6	2258.3	2670.2	4088.4	4881.8	10418.9	31143.2	46046.3	45226.5	33515.1	31098.6
67°	2146.7	2164.9	2359.7	3510.2	4601.8	6387.3	26091.0	47070.9	47902.8	36457.2	31208.1
67.5°	2160.9	2181.2	2365.8	3349.9	4593.7	5869.9	24350.1	46667.1	47718.2	36690.5	30723.2
70°	2083.8	2146.7	2708.7	3347.9	4368.4	4877.7	14582.5	40434.0	41527.7	34091.4	26068.7
72.5°	738.6	742.6	1170.7	2708.7	4749.9	4930.5	7322.7	29641.7	30451.3	26078.8	18794.7
75°	438.3	373.3	389.6	771.0	4538.9	4788.5	4224.4	18940.8	19243.1	14943.6	9518.1
77.5°	302.3	263.8	271.9	340.9	1728.7	4721.5	3356.0	9877.2	9554.6	5240.9	2027.0
80°	172.5	152.2	162.3	298.3	629.0	4405.0	3165.2	4005.3	3414.8	888.7	560.0
82.5°	91.3	77.1	93.3	245.5	438.3	2745.2	3171.3	1935.7	1533.9	300.3	381.5
85°	32.5	26.4	44.6	168.4	292.2	842.0	2940.0	1627.3	1278.3	146.1	290.1
87.5°	6.1	6.1	18.3	69.0	117.7	257.7	1738.9	965.8	647.3	87.2	198.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P299623

CATALOG NUMBER: GLNA-AF-09-LED-E1-SL2-7027-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	7671.7	7671.7	7671.7	7671.7	7671.7	7671.7	7671.7	7671.7	7671.7	7671.7	7671.7
2.5°	7647.3	7560.1	7442.4	7298.3	7127.9	6977.8	6866.2	6750.5	6726.2	6685.6	6679.5
5°	7596.6	7446.5	7154.3	6819.5	6462.4	6139.8	5878.0	5644.7	5541.2	5451.9	5441.8
7.5°	7521.5	7296.3	6799.2	6259.5	5701.5	5194.3	4764.1	4459.8	4179.8	4045.8	4025.5
10°	7434.3	7111.7	6399.5	5650.8	4879.8	4163.5	3524.4	2988.7	2664.1	2471.3	2447.0
12.5°	7353.1	6931.1	5991.7	5019.8	3995.1	3037.4	2215.7	1704.4	1363.5	1225.5	1209.3
15°	7314.6	6785.0	5610.2	4374.5	3069.9	1933.6	1211.3	937.4	825.8	793.3	791.3
17.5°	7310.5	6661.2	5236.9	3707.0	2150.7	1124.1	789.3	720.3	698.0	689.9	689.9
20°	7308.5	6543.5	4863.5	3015.1	1365.5	748.7	657.4	641.2	624.9	614.8	614.8
22.5°	7330.8	6438.0	4474.0	2309.0	860.3	606.7	578.3	562.0	541.7	527.5	525.5
25°	7353.1	6356.9	4076.3	1643.5	622.9	527.5	499.1	476.8	448.4	430.1	428.1
27.5°	7357.2	6255.4	3650.2	1099.7	521.5	460.6	424.1	389.6	357.1	338.8	336.8
30°	7296.3	6085.0	3177.4	742.6	460.6	399.7	351.0	314.5	284.1	269.9	269.9
32.5°	7176.6	5874.0	2658.0	560.0	409.9	342.9	290.1	255.7	235.4	229.3	227.2
35°	7069.1	5646.7	2124.4	474.8	367.3	290.1	237.4	215.1	202.9	200.9	198.8
37.5°	7006.2	5464.1	1623.2	430.1	326.7	243.5	200.9	184.6	178.6	174.5	176.5
40°	7054.9	5311.9	1199.1	393.6	286.1	202.9	170.4	162.3	156.2	154.2	154.2
42.5°	7267.9	5285.6	890.7	361.2	247.5	168.4	148.1	142.0	138.0	135.9	138.0
45°	7827.9	5447.9	691.9	330.7	209.0	142.0	125.8	123.8	121.7	121.7	121.7
47.5°	8669.9	5782.7	576.2	296.2	174.5	121.7	109.6	107.5	105.5	107.5	107.5
50°	10096.3	6395.4	515.4	261.7	144.1	103.5	93.3	93.3	93.3	93.3	95.4
52.5°	12265.3	7600.7	474.8	227.2	117.7	87.2	79.1	79.1	81.2	81.2	83.2
55°	14681.9	9199.5	438.3	192.8	99.4	73.0	64.9	67.0	69.0	71.0	71.0
57.5°	17303.4	10970.8	407.8	158.3	85.2	58.8	54.8	56.8	58.8	62.9	62.9
60°	20466.6	12888.2	363.2	123.8	71.0	46.7	42.6	46.7	52.8	56.8	58.8
62.5°	23940.2	14742.8	306.4	97.4	58.8	36.5	34.5	42.6	50.7	54.8	56.8
65°	26314.2	15325.1	235.4	79.1	44.6	26.4	28.4	38.6	48.7	54.8	54.8
67°	25352.4	13894.6	192.8	67.0	36.5	20.3	26.4	38.6	48.7	52.8	54.8
67.5°	24684.9	13334.6	184.6	64.9	34.5	20.3	26.4	38.6	48.7	54.8	54.8
70°	20085.1	10017.2	154.2	48.7	28.4	18.3	22.3	36.5	46.7	52.8	52.8
72.5°	13955.5	6176.3	138.0	34.5	24.3	16.2	20.3	34.5	44.6	50.7	52.8
75°	6634.8	2236.0	117.7	26.4	22.3	14.2	18.3	34.5	44.6	50.7	50.7
77.5°	1353.3	519.4	95.4	22.3	18.3	14.2	16.2	32.5	42.6	48.7	48.7
80°	444.4	200.9	71.0	20.3	18.3	14.2	16.2	30.4	42.6	46.7	48.7
82.5°	320.6	101.5	46.7	20.3	18.3	14.2	14.2	30.4	40.6	46.7	46.7
85°	245.5	71.0	30.4	20.3	18.3	14.2	14.2	28.4	38.6	44.6	44.6
87.5°	162.3	28.4	24.3	20.3	18.3	14.2	14.2	28.4	36.5	42.6	44.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)