

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: P299269

Luminaire Tested: **GLNA-AF-10-LED-E1-SL2-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299269
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24286)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-10-LED-E1-SL2-7027-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Narrow OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 32920.7 lumens
Efficiency: N/A
Efficacy: 101.9 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 - G4

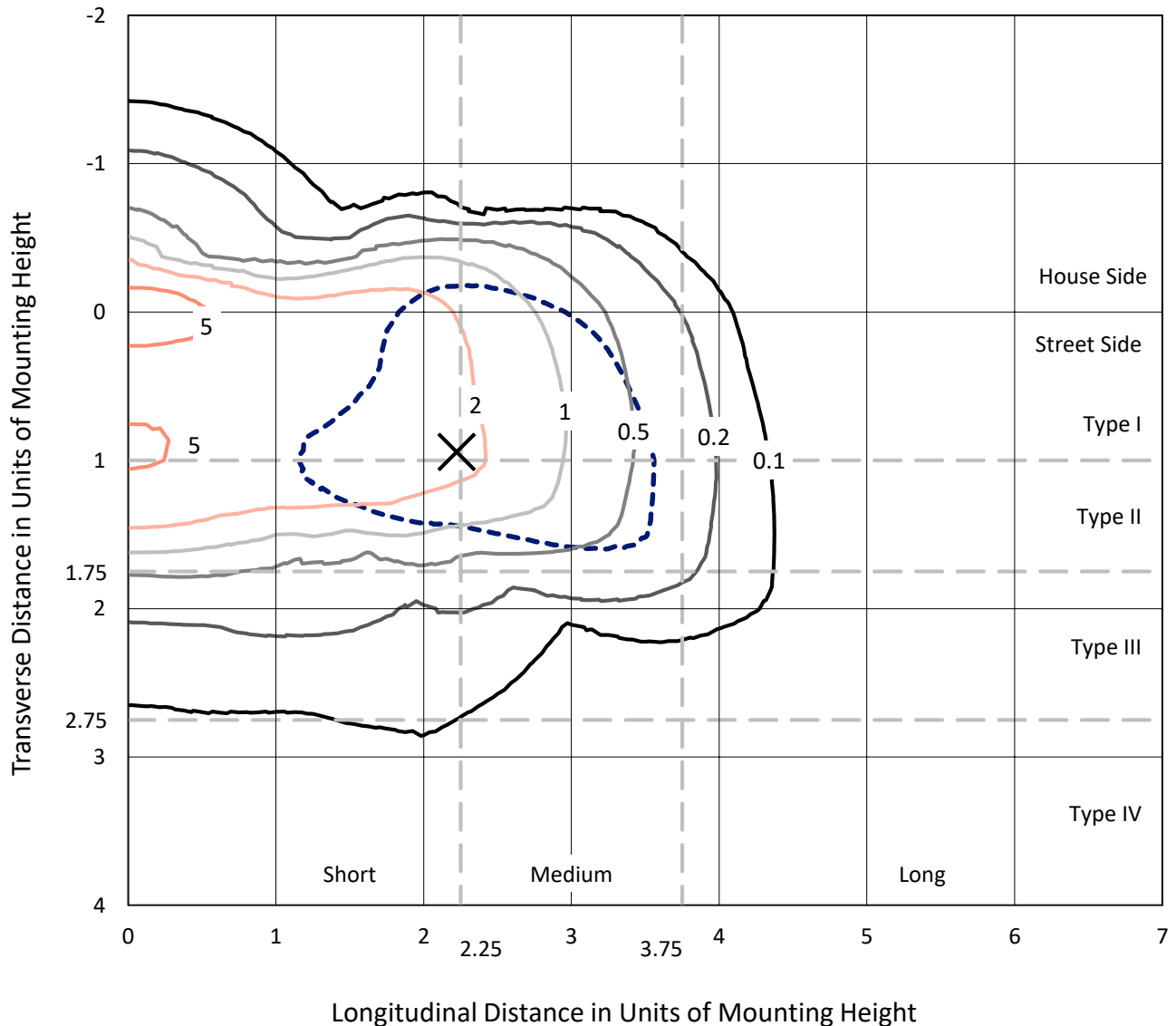
Input Watts (W): 323
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P299269
 CATALOG NUMBER: GLNA-AF-10-LED-E1-SL2-7027-600

Iso-Footcandle Lines of Horizontal Illumination

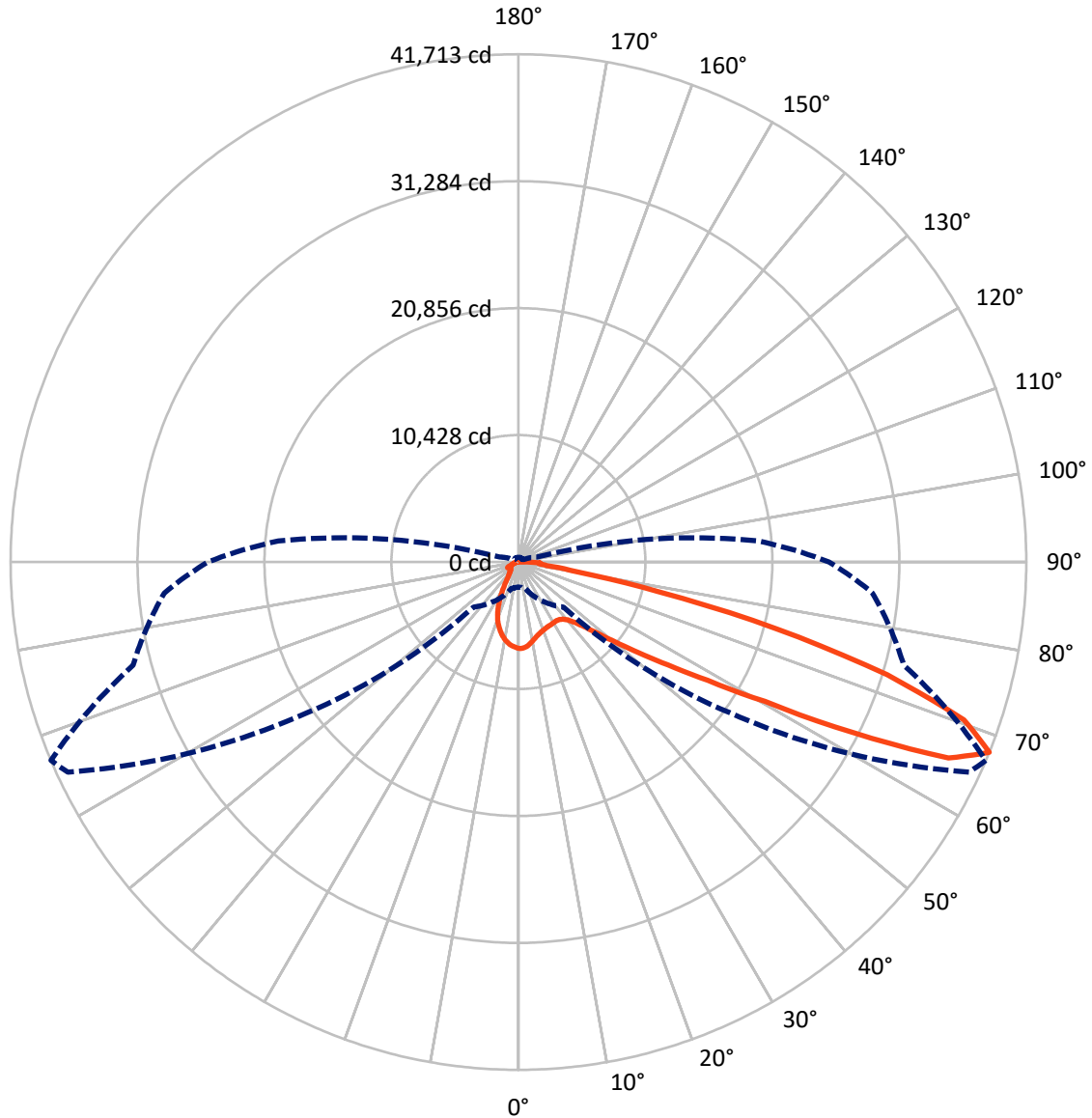
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.9 fc
 Type II - Short - Semi-Cutoff

REPORT NUMBER: P299269
CATALOG NUMBER: GLNA-AF-10-LED-E1-SL2-7027-600

Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

REPORT NUMBER: P299269

CATALOG NUMBER: GLNA-AF-10-LED-E1-SL2-7027-600

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5454.6	0.0	5454.6
	% Fixture	16.6	0.0	16.6
Street Side	Lumens	27466.1	0.0	27466.1
	% Fixture	83.4	0.0	83.4
Total	Lumens	32920.7	0.0	32920.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	605.8	1.8
10°-20°	1401.8	4.3
20°-30°	1900.1	5.8
30°-40°	2701.2	8.2
40°-50°	4519.2	13.7
50°-60°	7149.4	21.7
60°-70°	9107.6	27.7
70°-80°	4770.5	14.5
80°-90°	765.1	2.3
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°	32920.7	100.0
0°-180°	32920.7	100.0

Coefficient of Utilization



REPORT NUMBER: P299269

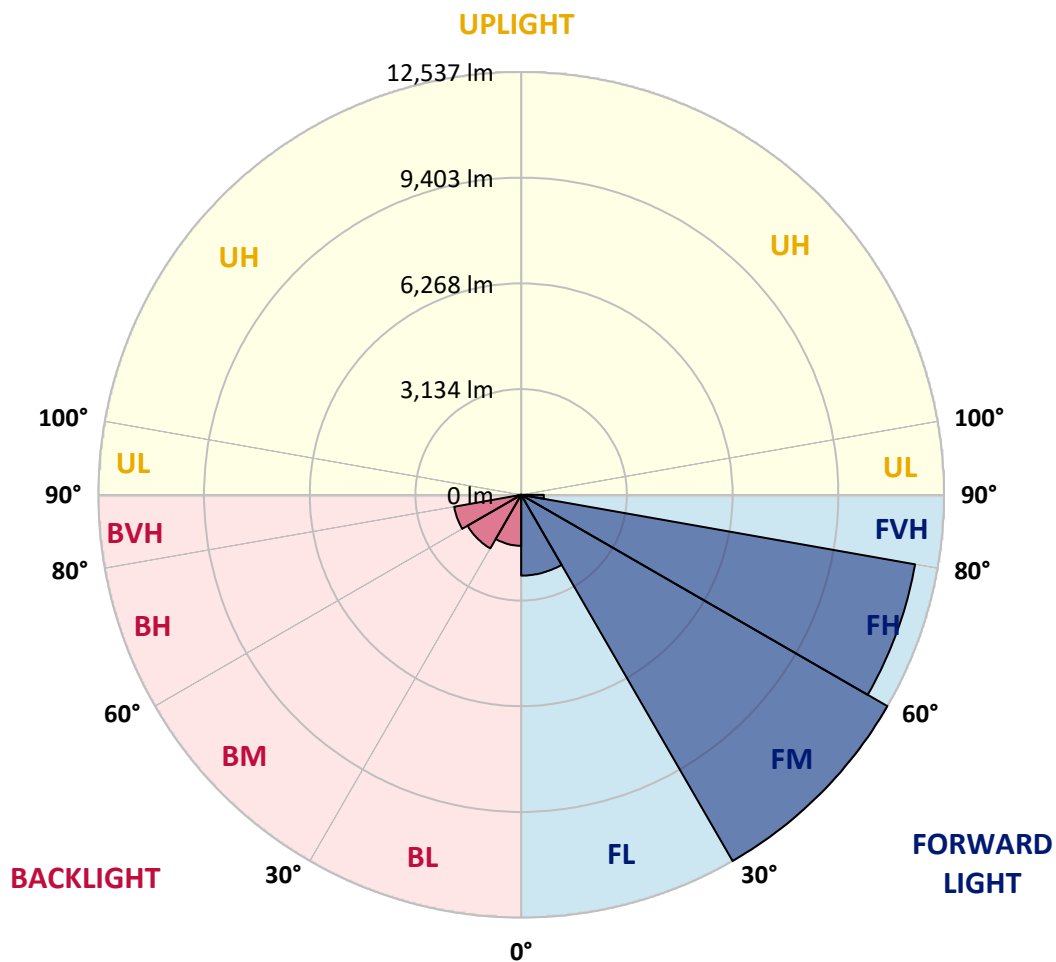
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2395.8	7.3			
FM (30°-60°)	12536.9	38.1			
FH (60°-80°)	11860.6	36.0			G4/12000
FVH (80°-90°)	672.8	2.0			G4/750
BL (0°-30°)	1511.9	4.6	B3/2500		
BM (30°-60°)	1832.9	5.6	B2/2500		
BH (60°-80°)	2017.5	6.1	B3/2500		G3/2500
BVH (80°-90°)	92.3	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type II Short





REPORT NUMBER: P299269

CATALOG NUMBER: GLNA-AF-10-LED-E1-SL2-7027-600

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	7100.9	7100.9	7100.9	7100.9	7100.9	7100.9	7100.9	7100.9	7100.9	7100.9	7100.9
2.5°	6808.7	6820.1	6855.8	6878.5	6980.8	7024.6	7055.5	7086.3	7091.2	7105.8	7091.2
5°	6094.4	6118.7	6185.3	6260.0	6458.0	6613.9	6777.8	6948.3	6979.2	7089.5	7120.4
7.5°	5540.8	5534.3	5589.5	5678.8	5881.7	6097.6	6385.0	6724.3	6790.8	7039.2	7159.4
10°	5136.6	5131.7	5190.1	5282.7	5475.9	5680.4	6005.1	6469.4	6563.6	6959.7	7196.7
12.5°	4837.8	4839.5	4897.9	5000.2	5196.6	5402.8	5732.4	6222.6	6342.8	6867.1	7235.7
15°	4639.8	4652.8	4699.8	4808.6	5000.2	5206.4	5529.4	6037.6	6172.3	6794.1	7279.5
17.5°	4573.2	4594.3	4610.6	4690.1	4854.1	5060.3	5376.8	5901.2	6044.1	6743.8	7318.5
20°	4634.9	4659.3	4628.4	4656.0	4759.9	4941.7	5256.7	5794.0	5940.2	6686.9	7323.3
22.5°	4899.5	4922.3	4831.3	4751.8	4745.3	4855.7	5157.7	5709.6	5860.6	6644.7	7324.9
25°	5365.5	5380.1	5227.5	5042.4	4862.2	4824.9	5087.8	5651.2	5811.9	6607.4	7294.1
27.5°	5936.9	5948.3	5772.9	5500.2	5138.2	4897.9	5063.5	5617.1	5784.3	6574.9	7242.1
30°	6631.7	6685.3	6449.9	6105.7	5578.1	5113.8	5112.2	5599.2	5753.5	6519.7	7139.9
32.5°	7342.8	7365.5	7203.2	6854.1	6170.7	5493.7	5248.6	5612.2	5745.3	6453.2	7010.0
35°	8063.6	8092.8	7987.3	7706.5	6980.8	6050.5	5514.8	5688.5	5795.7	6430.4	6919.1
37.5°	8997.1	9036.0	8889.9	8565.3	7966.2	6805.4	5958.0	5880.1	5949.9	6495.4	6891.5
40°	10472.8	10454.9	10028.0	9544.2	9044.2	7771.4	6591.2	6204.8	6245.4	6704.8	6975.9
42.5°	12190.4	12146.6	11411.1	10651.4	10229.3	8940.3	7428.8	6768.1	6760.0	7117.1	7273.0
45°	13560.6	13524.8	12862.5	11925.8	11588.1	10271.5	8511.7	7607.4	7547.4	7771.4	7821.7
47.5°	14302.5	14304.1	13922.6	13158.0	13149.8	11963.1	9903.0	8821.8	8717.9	8823.4	8769.8
50°	14042.7	14076.8	14036.2	13792.7	14575.2	14180.7	11719.6	10515.0	10305.6	10409.5	10203.3
52.5°	12786.2	12830.0	13070.3	13443.7	15174.3	16861.0	14388.5	12619.0	12375.5	12338.1	12109.2
55°	10558.8	10612.4	11102.7	12117.3	14675.9	18661.4	18599.7	15300.9	14912.9	14560.6	14463.2
57.5°	7277.9	7367.2	8156.1	9662.7	13063.8	19205.3	23614.5	19124.1	18335.1	17104.5	17127.3
60°	4102.4	4206.3	5136.6	6505.1	9810.4	18614.3	27429.6	24914.9	23249.2	20083.5	20252.4
62.5°	2608.9	2720.9	3427.1	4519.6	5886.6	15432.4	28992.9	32965.5	30850.2	23755.7	23921.3
65°	2112.1	2160.8	2493.6	3730.7	4274.5	9297.4	27806.2	39597.2	38808.2	28416.6	27643.9
67.5°	2061.8	2078.0	2250.1	3131.6	4099.2	5225.8	22179.4	40837.5	41712.6	32769.1	29194.3
70°	2037.4	2094.2	2535.8	2988.7	3925.5	4407.6	13328.4	37438.1	38819.6	33907.1	27130.9
72.5°	988.7	985.4	1276.0	2703.0	4422.2	4571.6	6847.7	30291.7	31678.1	29376.1	22294.7
75°	797.1	728.9	696.5	990.3	4251.8	4721.0	4363.8	20843.3	21846.6	19695.5	13705.0
77.5°	756.5	675.3	618.5	620.2	1797.1	5006.7	3696.6	11536.1	11828.4	8896.4	3755.0
80°	626.6	552.0	511.4	576.3	870.2	4768.0	3996.9	5221.0	4790.8	2185.1	1250.0
82.5°	435.1	396.1	384.8	483.8	696.5	3397.9	4647.9	2805.3	2352.4	1094.2	771.1
85°	277.6	237.0	263.0	352.3	542.2	1568.2	4787.5	2186.8	1738.7	694.8	435.1
87.5°	128.3	103.9	129.9	194.8	353.9	540.6	4555.4	2456.3	1790.7	366.9	274.4
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: P299269

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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	7100.9	7100.9	7100.9	7100.9	7100.9	7100.9	7100.9	7100.9	7100.9	7100.9	7100.9
2.5°	7104.2	7073.3	7049.0	7003.5	6953.2	6904.5	6860.6	6805.4	6789.2	6774.6	6797.3
5°	7126.9	7096.0	7006.8	6867.1	6712.9	6568.4	6423.9	6300.6	6224.3	6182.0	6206.4
7.5°	7161.0	7117.1	6932.1	6675.6	6398.0	6144.7	5883.3	5673.9	5519.7	5446.6	5467.7
10°	7191.8	7107.4	6805.4	6420.7	6014.8	5638.2	5225.8	4884.9	4631.7	4498.5	4531.0
12.5°	7204.8	7070.1	6628.5	6102.5	5545.7	4993.7	4386.5	3876.8	3513.1	3380.0	3352.4
15°	7217.8	7027.9	6433.7	5740.5	4979.1	4198.2	3347.5	2737.1	2435.2	2368.6	2354.0
17.5°	7221.0	6954.8	6212.9	5347.6	4315.1	3251.7	2289.0	1901.0	1902.7	2009.8	2022.8
20°	7187.0	6846.0	5945.0	4858.9	3519.6	2248.5	1571.5	1504.9	1750.1	2017.9	2050.4
22.5°	7109.0	6701.5	5641.4	4289.1	2608.9	1480.6	1216.0	1289.0	1605.6	1933.5	1970.9
25°	7010.0	6526.2	5282.7	3628.4	1727.3	1058.5	1019.5	1108.8	1323.1	1542.3	1563.4
27.5°	6875.3	6318.4	4880.0	2871.9	1121.8	871.8	897.8	957.8	1045.5	1142.9	1152.6
30°	6701.5	6070.0	4449.8	2094.2	847.4	784.1	821.5	853.9	891.3	946.5	951.3
32.5°	6501.9	5831.4	4008.3	1446.5	751.7	738.7	767.9	784.1	813.3	847.4	850.7
35°	6334.6	5604.1	3550.5	1022.8	711.1	704.6	724.1	730.5	758.1	795.5	798.7
37.5°	6238.9	5419.0	3078.0	824.7	683.5	673.7	685.1	685.1	724.1	779.2	787.4
40°	6245.4	5316.8	2605.6	745.2	660.7	647.8	649.4	649.4	699.7	759.8	764.6
42.5°	6422.3	5342.7	2186.8	714.3	642.9	628.3	620.2	625.0	667.2	706.2	709.4
45°	6837.9	5526.2	1793.9	694.8	625.0	620.2	602.3	600.7	616.9	634.8	634.8
47.5°	7519.8	5888.2	1527.7	681.8	610.4	608.8	587.7	566.6	565.0	571.4	571.4
50°	8628.6	6511.6	1349.1	667.2	600.7	587.7	563.3	530.9	519.5	524.4	524.4
52.5°	10291.0	7623.7	1280.9	647.8	579.6	558.5	530.9	498.4	488.7	490.3	490.3
55°	12471.2	9331.5	1271.2	625.0	556.8	522.7	500.0	475.7	464.3	467.5	467.5
57.5°	15135.3	11693.6	1444.9	589.3	526.0	487.0	474.0	457.8	449.7	454.6	452.9
60°	18374.1	14784.6	2142.9	552.0	495.1	454.6	454.6	441.6	435.1	440.0	438.3
62.5°	22104.7	18335.1	3013.1	524.4	462.7	428.6	435.1	428.6	422.1	425.3	423.7
65°	25413.3	20648.5	2821.5	503.3	430.2	404.2	415.6	412.4	407.5	410.7	409.1
67.5°	25509.1	19791.3	1584.5	480.5	399.4	379.9	396.1	394.5	391.2	394.5	392.9
70°	22765.4	16711.7	892.9	438.3	366.9	350.7	373.4	371.8	368.5	375.0	373.4
72.5°	18239.3	12127.1	652.6	386.4	334.4	319.8	345.8	344.2	344.2	353.9	349.0
75°	10495.5	6240.5	521.1	331.2	300.3	289.0	311.7	313.3	316.6	329.6	319.8
77.5°	2992.0	1944.9	425.3	280.9	258.1	253.3	276.0	279.2	280.9	295.5	282.5
80°	1112.1	896.1	350.7	235.4	211.0	212.7	233.8	238.6	240.3	254.9	238.6
82.5°	709.4	590.9	284.1	181.8	165.6	164.0	189.9	196.4	196.4	198.1	188.3
85°	414.0	353.9	214.3	131.5	116.9	112.0	141.2	152.6	147.7	144.5	138.0
87.5°	277.6	243.5	131.5	73.1	63.3	60.1	82.8	90.9	87.7	82.8	77.9
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)