

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: LUMARK

Report Number: P196608

Luminaire Tested: **NAV-AF-06-D-UNV-SL3-7030-1200-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196608
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24263)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-AF-06-D-UNV-SL3-7030-1200-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 32443.4 lumens
Efficiency: N/A
Efficacy: 84.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B2 - U0 - G5

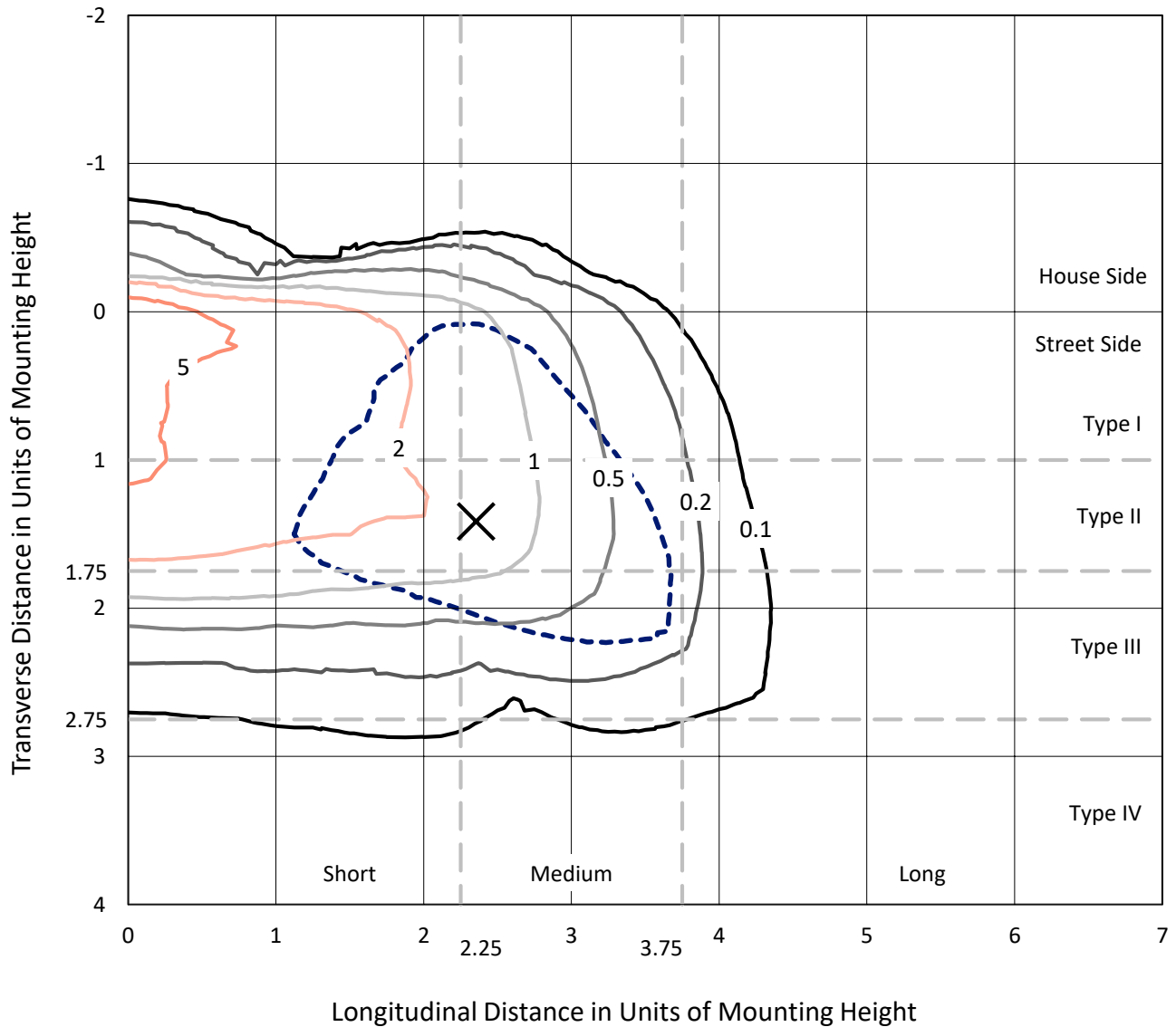
Input Watts (W): 382
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

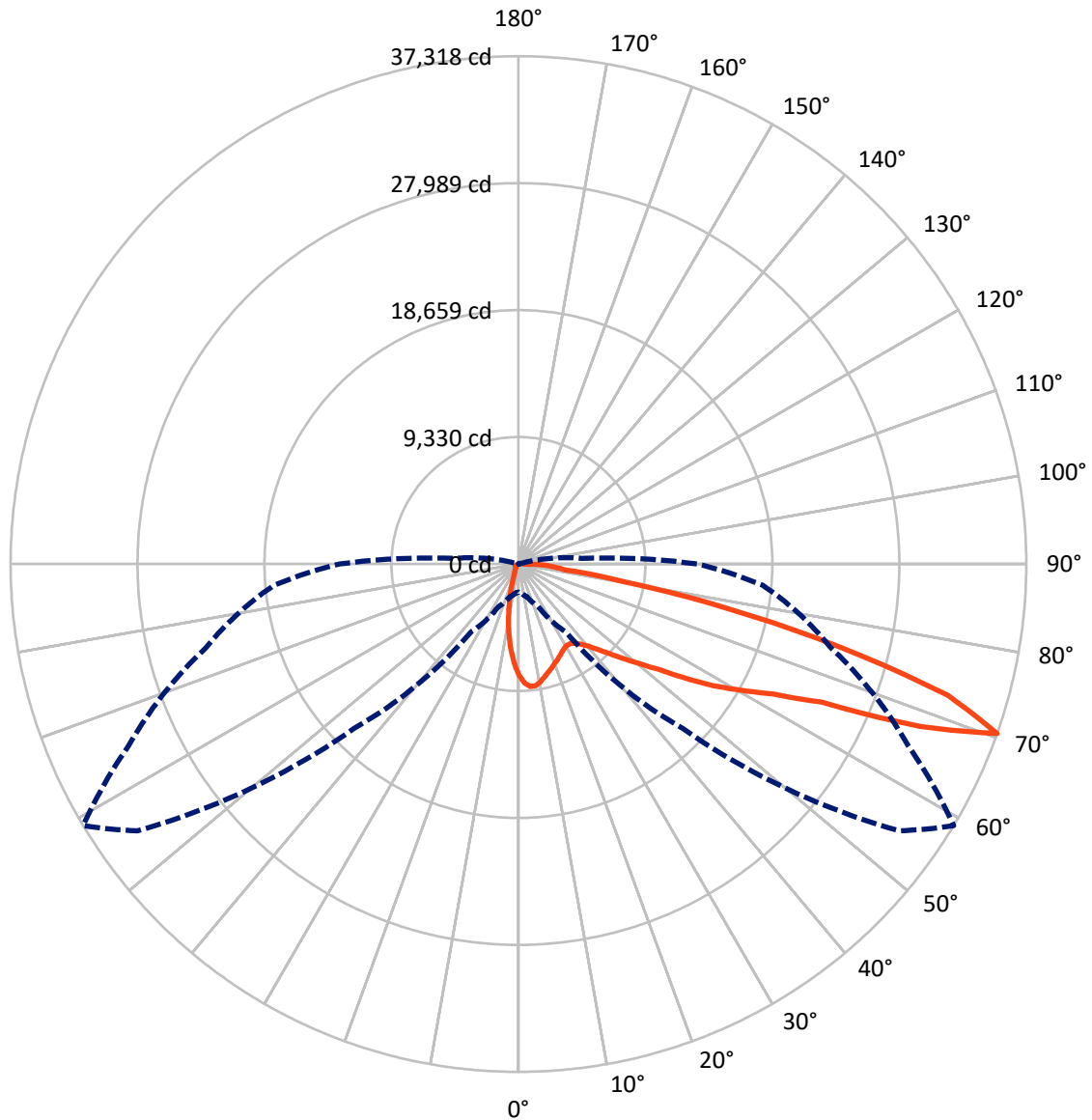


Based on 30 foot mounting height. Maximum calculated value = 9.7 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2494.0	0.0	2494.0
	% Fixture	7.7	0.0	7.7
Street Side	Lumens	29949.4	0.0	29949.4
	% Fixture	92.3	0.0	92.3
Total	Lumens	32443.4	0.0	32443.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	674.6	2.1
10°-20°	1414.9	4.4
20°-30°	1915.3	5.9
30°-40°	2764.1	8.5
40°-50°	4590.6	14.1
50°-60°	7021.8	21.6
60°-70°	8733.5	26.9
70°-80°	4827.9	14.9
80°-90°	500.6	1.5
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°	32443.4	100.0
0°-180°	32443.4	100.0

Coefficient of Utilization



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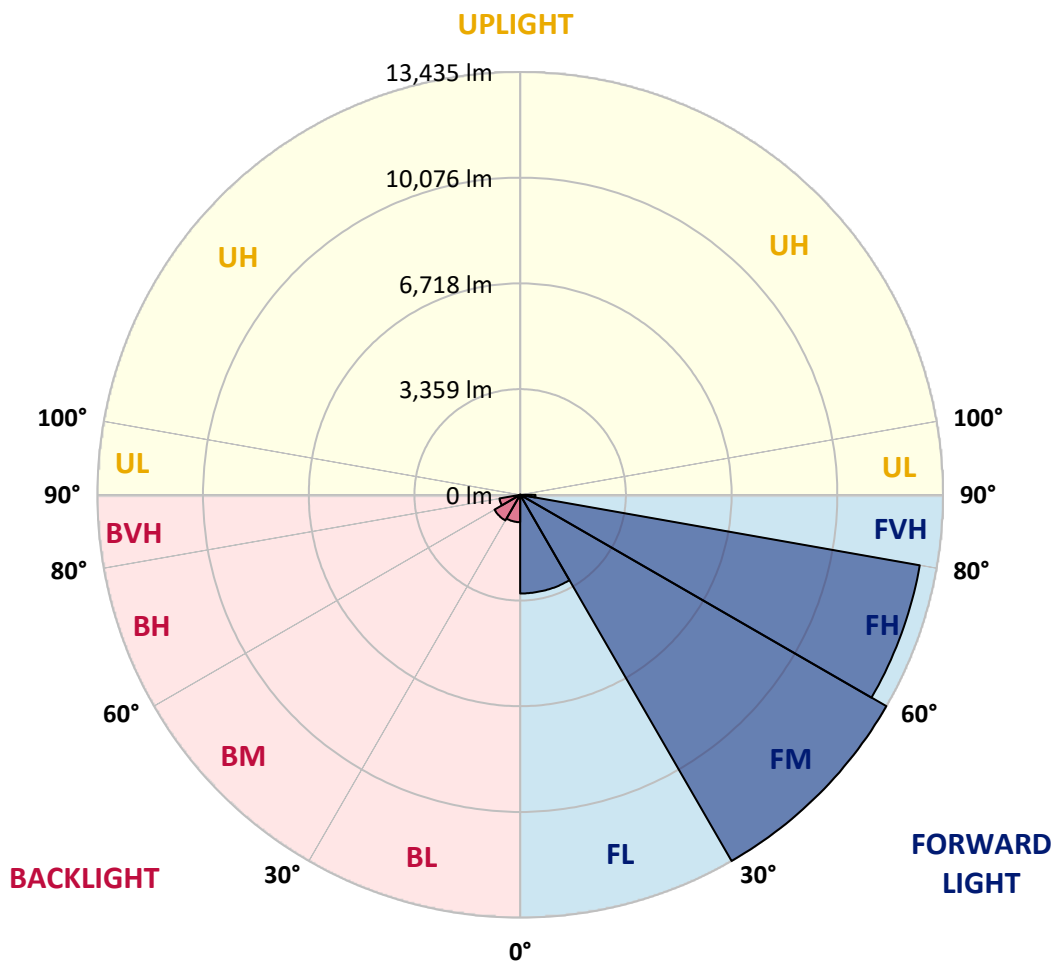
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3135.8	9.7			
FM	(30°-60°)	13435.2	41.4			
FH	(60°-80°)	12892.4	39.7			G5
FVH	(80°-90°)	486.1	1.5			G3/500
BL	(0°-30°)	869.1	2.7	B2/1000		
BM	(30°-60°)	941.4	2.9	B1/1000		
BH	(60°-80°)	669.0	2.1	B2/1000		G2/1000
BVH	(80°-90°)	14.5	0.0			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G5

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	8203.7	8203.7	8203.7	8203.7	8203.7	8203.7	8203.7	8203.7	8203.7	8203.7	8203.7
2.5°	9273.3	9258.6	9197.5	9185.2	9116.7	8979.6	8820.5	8756.9	8627.2	8421.6	8194.0
5°	9427.6	9434.9	9439.8	9412.8	9403.1	9290.5	9114.2	9038.4	8864.5	8526.8	8110.8
7.5°	8849.9	8869.4	8930.7	8957.6	9075.1	9119.1	9082.4	9033.4	8896.4	8497.4	7912.5
10°	8240.5	8277.2	8343.2	8387.3	8531.7	8649.2	8798.5	8810.7	8781.3	8399.6	7689.7
12.5°	7716.8	7751.0	7824.4	7912.5	8059.4	8211.2	8433.8	8512.2	8610.0	8335.9	7530.7
15°	7266.4	7276.2	7347.1	7457.3	7650.7	7858.7	8123.0	8238.0	8429.0	8311.5	7408.4
17.5°	6872.4	6874.8	6921.3	7021.6	7256.7	7530.7	7839.2	7990.9	8233.1	8277.2	7300.7
20°	6612.9	6610.5	6612.9	6666.8	6874.8	7200.3	7574.8	7733.9	8044.6	8235.6	7190.6
22.5°	6524.9	6512.6	6456.3	6436.8	6568.8	6855.3	7303.1	7511.1	7875.9	8223.4	7109.8
25°	6632.6	6625.2	6505.3	6392.6	6404.9	6583.6	7026.6	7281.1	7743.6	8267.4	7090.2
27.5°	6980.0	6965.4	6781.8	6561.6	6422.0	6453.8	6820.9	7087.7	7638.5	8375.0	7117.1
30°	7435.3	7437.8	7241.9	6975.2	6647.3	6466.1	6710.8	6963.0	7567.4	8536.7	7175.8
32.5°	7941.9	7939.5	7799.9	7491.6	7073.1	6691.2	6759.8	6972.7	7577.2	8774.1	7288.4
35°	8465.6	8438.7	8392.2	8120.5	7631.1	7085.4	6982.5	7139.1	7680.1	9087.3	7479.4
37.5°	9070.1	9060.5	9106.9	8820.5	8321.3	7665.3	7374.1	7479.4	7939.5	9550.0	7787.7
40°	10031.9	9978.2	10000.2	9611.1	9099.5	8446.1	7922.3	7949.2	8353.1	10161.7	8274.8
42.5°	11865.1	11647.4	11238.6	10509.2	9956.1	9312.5	8639.4	8592.9	8938.0	10903.3	8916.0
45°	14055.5	13805.9	12775.5	11500.4	10812.8	10242.5	9525.4	9400.5	9657.5	11786.8	9743.2
47.5°	15883.8	15614.6	14248.9	12535.8	11684.0	11202.0	10506.8	10360.0	10519.1	12812.3	10736.9
50°	16507.9	16358.7	15159.4	13397.3	12562.6	12278.8	11737.8	11493.1	11532.4	13918.5	11896.9
52.5°	16221.5	16170.2	15367.5	13987.1	13375.2	13468.2	13086.4	12829.4	12785.4	15127.6	13179.4
55°	15617.1	15592.6	15201.0	14315.0	14092.3	14557.2	14978.3	14755.6	14339.5	16412.5	14239.1
57.5°	14753.1	14846.1	15127.6	14946.4	14973.3	15707.5	16735.6	16850.5	16229.0	17435.5	15024.8
60°	12445.1	12694.9	13984.6	15624.4	16879.9	17621.5	18617.6	18832.9	17829.5	18135.4	15932.7
62.5°	9199.8	9557.2	11395.2	14408.0	17929.9	21260.8	21121.4	21025.9	19356.7	19072.9	17584.7
65°	5404.0	5822.4	7376.5	11258.2	16346.4	23600.5	25795.9	24474.3	21684.2	21020.9	20215.8
67.5°	2692.1	2694.7	3397.0	5942.4	12080.5	21968.1	32619.4	31855.7	26632.9	23891.8	21253.4
70°	2070.6	2126.8	2513.5	3453.3	6108.8	17110.0	34183.2	37318.4	31606.1	23764.6	18032.7
72.5°	1754.8	1791.6	2237.0	3005.4	4566.9	9393.2	29591.9	32986.5	30159.7	20078.7	13291.9
75°	1262.8	1292.2	1980.0	2726.4	4204.8	4659.9	20299.0	24464.5	22628.9	14124.2	7315.4
77.5°	313.2	310.9	690.2	2212.5	3761.7	3881.7	11647.4	15688.0	12983.6	5783.3	1879.6
80°	139.6	134.6	156.7	465.0	3499.8	3663.8	5122.5	7922.3	4980.5	937.3	575.1
82.5°	97.9	93.0	97.9	171.3	1169.8	3399.5	3096.0	3433.7	1823.3	320.5	244.7
85°	31.8	29.4	53.9	144.4	328.0	1960.4	3020.2	2564.9	1355.9	137.0	164.0
87.5°	4.9	4.9	19.5	78.3	95.5	653.5	1771.9	1776.9	609.4	80.8	73.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	8203.7	8203.7	8203.7	8203.7	8203.7	8203.7	8203.7	8203.7	8203.7	8203.7	8203.7
2.5°	8078.9	7934.5	7731.4	7528.3	7344.7	7156.3	7004.5	6933.6	6901.8	6857.6	6762.3
5°	7893.0	7631.1	7185.7	6747.6	6338.7	5947.2	5612.0	5421.0	5215.5	5205.6	5105.3
7.5°	7594.4	7222.4	6519.9	5839.6	5215.5	4618.3	4104.4	3771.5	3543.9	3401.9	3304.0
10°	7261.5	6784.2	5854.2	4897.3	4048.0	3250.1	2589.3	2158.6	1896.7	1764.6	1688.7
12.5°	6997.2	6397.5	5198.3	3994.2	2929.6	2014.2	1399.9	1086.7	947.2	893.3	868.8
15°	6769.6	6042.7	4584.1	3186.5	1955.5	1157.6	810.0	707.4	685.3	685.3	682.9
17.5°	6539.5	5700.0	3986.9	2393.6	1231.1	758.7	638.7	624.1	626.5	633.9	633.9
20°	6321.7	5374.6	3411.7	1705.9	807.7	606.9	580.0	575.1	582.5	592.3	589.8
22.5°	6145.5	5088.2	2873.3	1172.4	621.6	550.6	533.5	526.2	531.1	538.4	536.0
25°	6020.6	4843.5	2378.9	817.5	540.9	501.7	482.2	472.3	467.4	472.3	470.0
27.5°	5944.8	4637.8	1913.9	614.2	484.6	452.8	428.3	408.7	396.5	396.5	391.5
30°	5895.8	4444.5	1500.2	509.0	438.1	403.8	369.6	342.6	323.1	318.2	315.8
32.5°	5893.5	4278.1	1120.9	450.3	394.0	354.9	313.2	279.0	257.0	252.1	249.6
35°	5954.6	4143.5	824.8	406.2	354.9	308.3	261.9	225.2	205.6	205.6	203.1
37.5°	6113.7	4065.2	624.1	372.0	323.1	269.3	220.2	186.0	169.0	173.7	173.7
40°	6409.8	4050.5	509.0	345.0	296.1	234.9	178.6	151.8	144.4	151.8	151.8
42.5°	6862.6	4128.8	452.8	325.5	271.6	200.7	149.2	129.7	127.3	134.6	134.6
45°	7452.5	4283.0	420.9	308.3	244.7	166.4	124.8	112.5	110.2	119.9	119.9
47.5°	8167.0	4491.0	391.5	288.8	217.9	137.0	105.2	95.5	95.5	105.2	107.7
50°	9013.9	4772.5	362.2	269.3	195.8	115.0	88.1	80.8	83.2	93.0	95.5
52.5°	9987.9	5117.6	335.3	252.1	171.3	93.0	73.4	68.5	71.0	80.8	83.2
55°	10827.4	5418.6	303.5	234.9	139.6	75.8	61.1	58.8	61.1	73.4	73.4
57.5°	11559.2	5707.3	274.1	208.0	110.2	61.1	48.9	48.9	53.9	66.1	68.5
60°	12530.8	6162.7	249.6	176.2	83.2	46.6	39.2	41.6	48.9	58.8	61.1
62.5°	14251.3	6936.0	217.9	146.9	61.1	36.7	31.8	34.3	44.0	56.3	58.8
65°	16405.1	7667.9	181.2	122.4	46.6	26.9	24.5	31.8	44.0	56.3	58.8
67.5°	16184.8	6669.3	141.9	97.9	34.3	22.1	19.5	29.4	41.6	56.3	58.8
70°	13125.6	4674.5	105.2	66.1	26.9	19.5	19.5	29.4	41.6	53.9	56.3
72.5°	9104.5	2601.6	80.8	44.0	24.5	19.5	17.2	26.9	39.2	53.9	56.3
75°	4331.9	797.8	63.6	31.8	22.1	17.2	14.6	26.9	39.2	53.9	56.3
77.5°	832.1	203.1	51.4	26.9	19.5	17.2	14.6	24.5	39.2	51.4	53.9
80°	281.5	90.5	41.6	24.5	19.5	17.2	14.6	24.5	36.7	48.9	51.4
82.5°	154.2	51.4	36.7	22.1	19.5	14.6	12.2	22.1	34.3	48.9	51.4
85°	119.9	36.7	29.4	22.1	19.5	14.6	12.2	22.1	34.3	46.6	48.9
87.5°	61.1	26.9	24.5	22.1	19.5	14.6	12.2	19.5	31.8	44.0	48.9
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)