

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: P270676

Luminaire Tested: **NAV-AF-06-D-UNV-SL3-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270676
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24262)
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-SL3-7027-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 2700K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25252.6 lumens
Efficiency: N/A
Efficacy: 101.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B3 - U0 - G4

Input Watts (W): 249
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

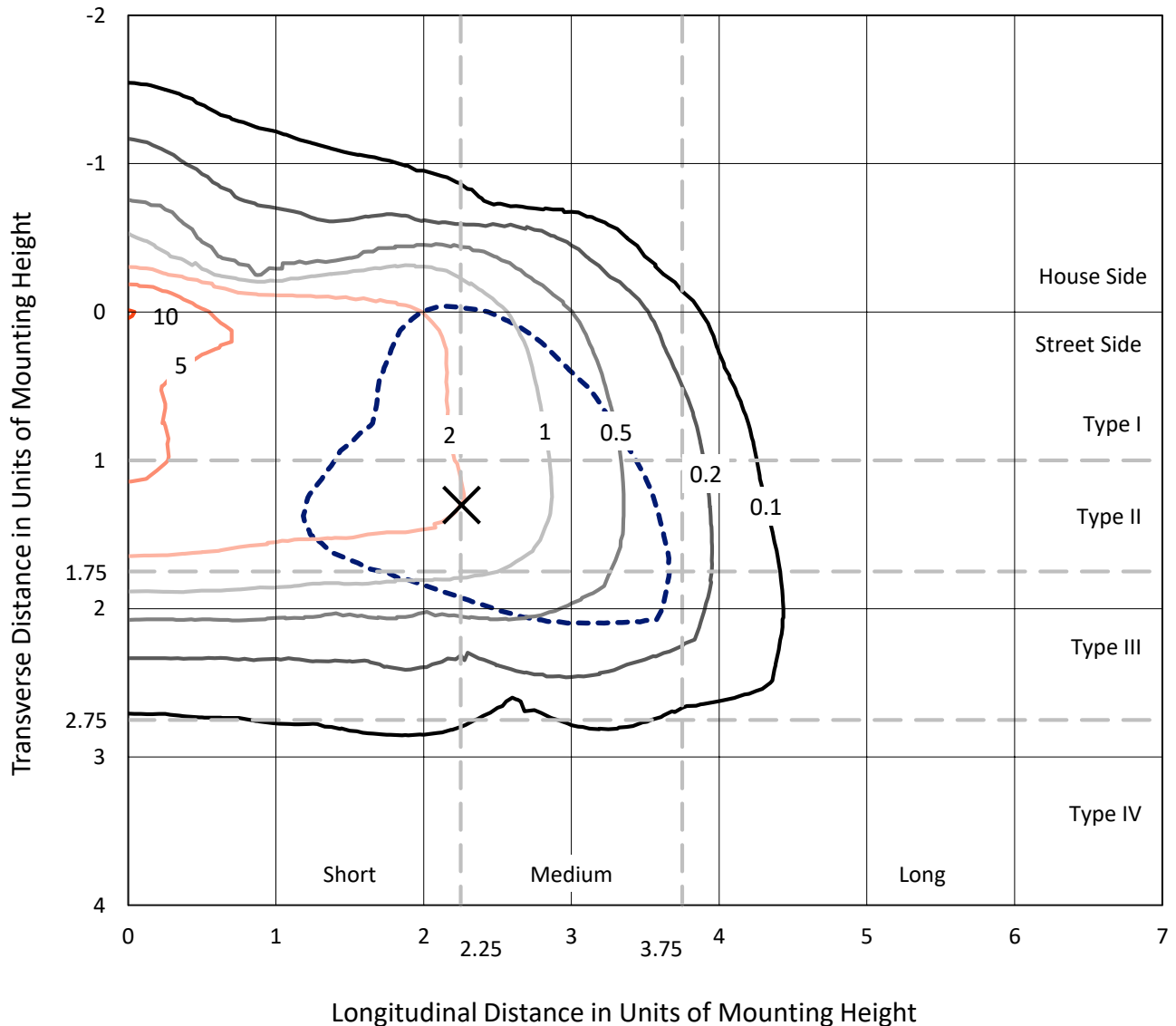


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Iso-Footcandle Lines of Horizontal Illumination

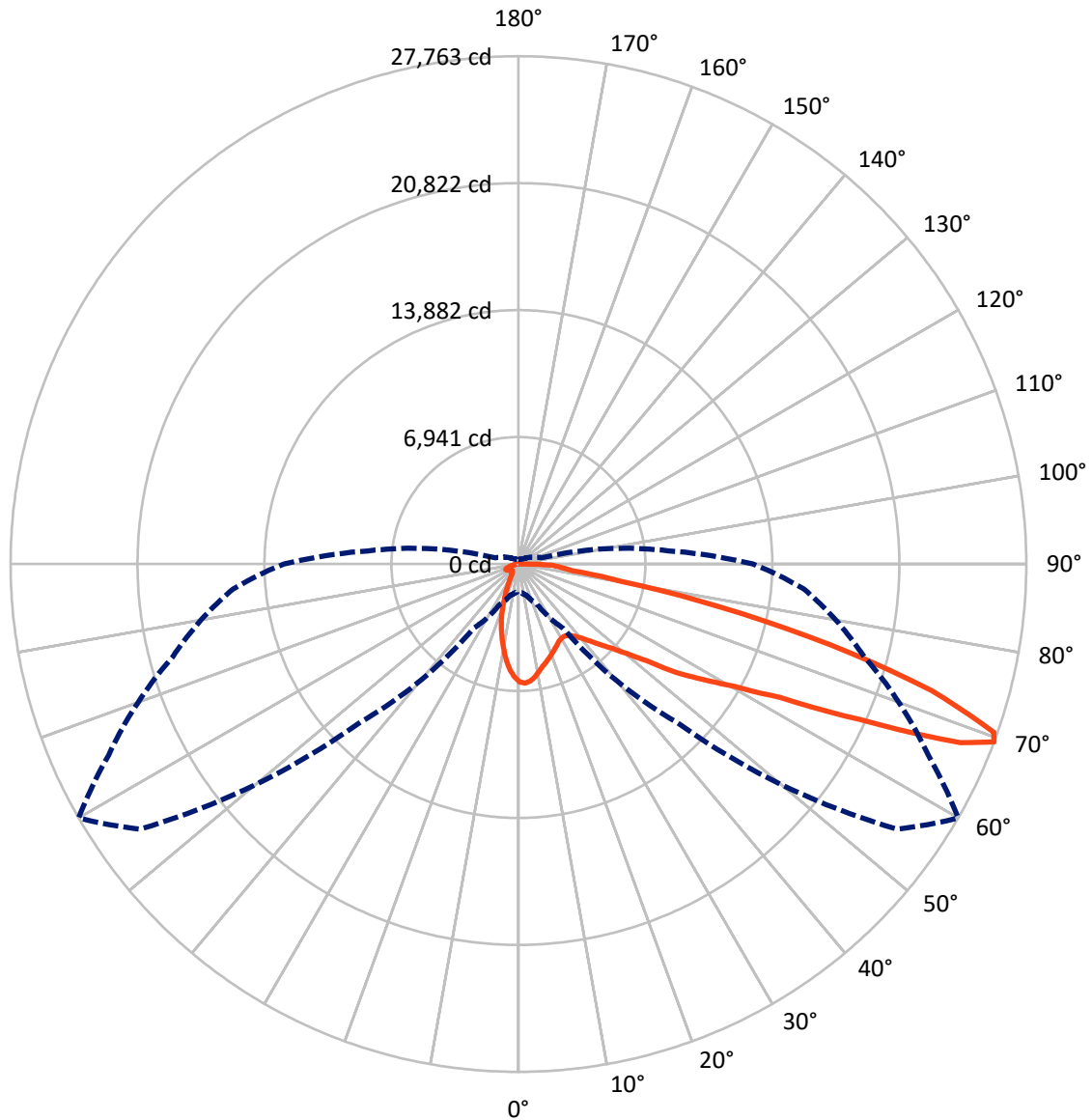
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.3 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3601.9	0.0	3601.9
	% Fixture	14.3	0.0	14.3
Street Side	Lumens	21650.7	0.0	21650.7
	% Fixture	85.7	0.0	85.7
Total	Lumens	25252.6	0.0	25252.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	546.6	2.2
10°-20°	1170.4	4.6
20°-30°	1493.0	5.9
30°-40°	2054.5	8.1
40°-50°	3327.9	13.2
50°-60°	5223.0	20.7
60°-70°	6963.2	27.6
70°-80°	3873.2	15.3
80°-90°	600.7	2.4
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°	25252.6	100.0
0°-180°	25252.6	100.0

Coefficient of Utilization



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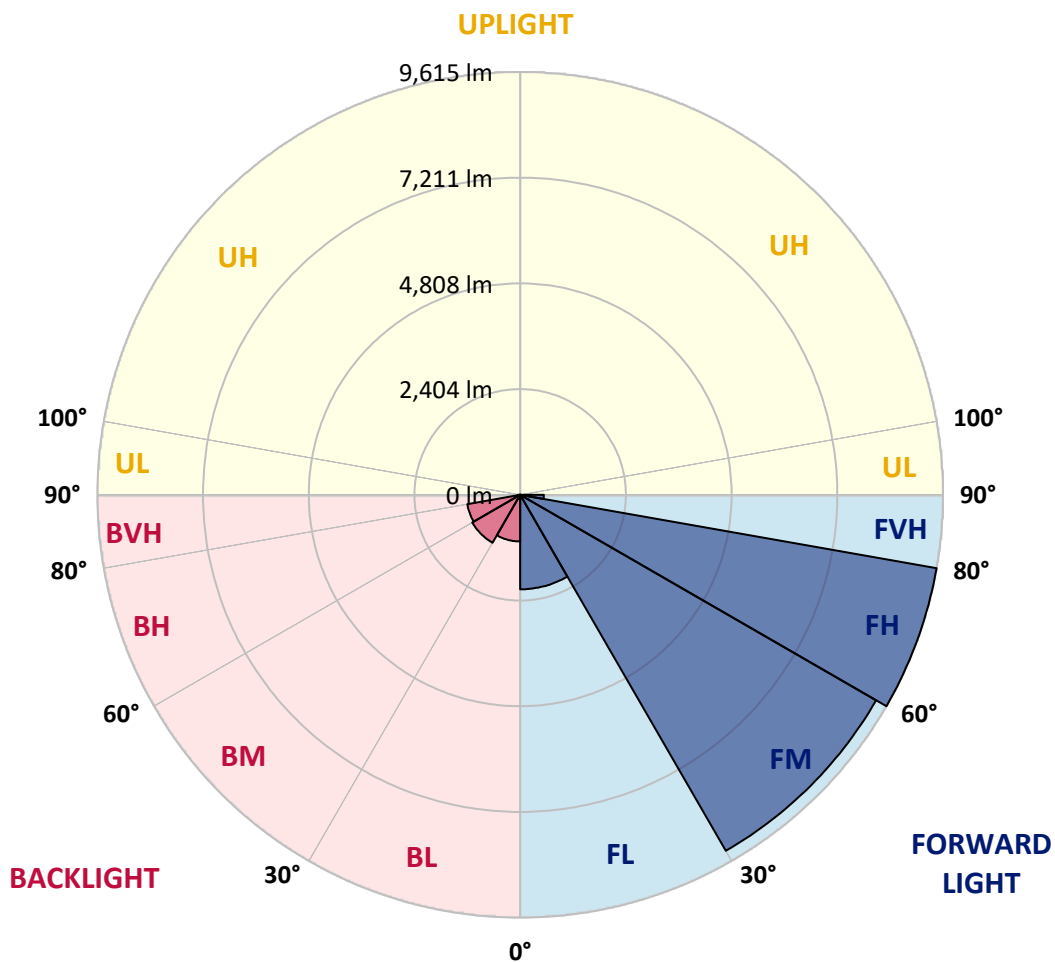
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2148.5	8.5			
FM	(30°-60°)	9347.2	37.0			
FH	(60°-80°)	9615.2	38.1			G4/12000
FVH	(80°-90°)	539.8	2.1			G4/750
BL	(0°-30°)	1061.5	4.2	B3/2500		
BM	(30°-60°)	1258.3	5.0	B2/2500		
BH	(60°-80°)	1221.2	4.8	B3/2500		G3/2500
BVH	(80°-90°)	60.9	0.2			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 III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	6443.3	6443.3	6443.3	6443.3	6443.3	6443.3	6443.3	6443.3	6443.3	6443.3	6443.3
2.5°	6614.8	6632.7	6632.7	6618.2	6610.1	6563.0	6535.6	6516.1	6482.1	6419.0	6362.2
5°	6378.4	6412.6	6427.1	6433.5	6475.6	6461.1	6462.6	6449.7	6420.5	6352.5	6260.3
7.5°	5944.5	5951.0	5977.0	6020.6	6122.7	6194.0	6252.3	6263.5	6257.1	6206.8	6077.4
10°	5517.0	5528.3	5559.2	5633.6	5730.7	5832.8	5959.0	6010.9	6049.7	6033.6	5870.1
12.5°	5162.4	5163.9	5198.0	5283.8	5392.3	5520.3	5691.9	5772.9	5865.2	5902.5	5719.4
15°	4820.8	4843.4	4875.8	4979.5	5113.8	5275.7	5473.4	5585.0	5706.5	5813.3	5602.9
17.5°	4561.7	4579.4	4598.9	4684.8	4840.2	5042.5	5287.1	5406.9	5567.2	5730.7	5483.1
20°	4419.1	4425.6	4410.9	4453.1	4584.3	4802.9	5086.3	5230.4	5421.5	5651.3	5359.9
22.5°	4389.9	4389.9	4336.6	4328.5	4386.8	4571.4	4879.1	5055.5	5288.7	5596.4	5249.9
25°	4526.0	4516.3	4415.9	4323.6	4302.5	4396.5	4681.4	4898.5	5175.3	5594.7	5167.2
27.5°	4783.5	4770.4	4645.9	4490.4	4356.1	4315.5	4529.3	4751.0	5086.3	5649.8	5125.1
30°	5104.1	5099.1	4972.9	4778.7	4556.7	4347.8	4469.2	4675.0	5026.3	5751.8	5123.6
32.5°	5455.4	5432.8	5355.1	5160.8	4872.5	4527.5	4504.9	4678.3	5010.1	5900.7	5160.8
35°	5829.6	5813.3	5793.9	5598.0	5274.0	4845.0	4662.1	4789.9	5089.4	6108.0	5266.0
37.5°	6305.7	6287.7	6320.1	6106.5	5751.8	5261.2	4927.7	5013.4	5251.4	6409.2	5462.0
40°	7152.6	7100.7	7010.1	6681.4	6308.8	5771.3	5311.4	5324.3	5528.3	6812.4	5776.1
42.5°	8543.5	8376.8	7928.3	7324.2	6896.6	6364.0	5811.8	5750.2	5910.5	7345.3	6232.8
45°	9937.8	9749.9	8992.0	8025.4	7505.6	7000.3	6430.2	6282.9	6386.6	7965.5	6820.7
47.5°	10838.1	10745.7	9890.8	8726.6	8143.6	7693.4	7137.9	6895.0	6969.5	8668.3	7546.0
50°	11102.1	11022.7	10350.7	9275.4	8746.0	8530.6	8014.0	7691.7	7704.8	9489.2	8415.6
52.5°	10904.4	10872.0	10426.7	9615.5	9299.8	9413.1	9226.9	8778.2	8671.5	10389.5	9358.1
55°	10640.6	10651.9	10480.3	9957.3	9863.3	10235.6	10813.7	10452.7	9999.4	11327.1	10339.3
57.5°	9809.9	9817.9	10268.0	10608.2	10938.5	11388.6	12049.3	11897.2	11369.2	12339.2	11438.8
60°	7899.1	7962.1	8964.5	10473.8	12167.5	13660.5	13822.5	13560.2	12826.5	13505.1	12868.7
62.5°	5643.3	5699.9	6861.1	9092.5	12023.5	16232.1	17096.7	16053.9	14803.8	15249.1	14880.0
65°	2964.9	2955.2	3854.0	6282.9	10127.2	16827.9	22255.9	20481.1	18134.8	17647.4	16823.1
67.5°	1656.6	1710.1	2058.1	3169.0	6600.3	14810.3	25551.2	26074.3	22765.9	19550.1	16738.8
69°	1531.9	1549.7	1782.9	2450.0	4302.5	12219.4	25267.9	27763.1	24718.9	19558.1	15660.4
70°	1488.1	1507.5	1719.7	2257.4	3614.3	10012.2	24236.4	27565.7	25193.3	19124.1	14679.2
72.5°	1334.3	1360.3	1565.8	2029.0	3046.0	5160.8	19522.4	23593.4	22821.0	16714.7	11382.2
75°	1138.4	1182.1	1493.1	2014.4	2885.6	3280.7	13019.3	17577.7	16985.1	11953.7	6457.8
77.5°	471.3	476.1	652.6	1475.1	3028.1	3139.8	6997.1	11134.4	9856.8	5241.7	1944.8
80°	328.7	322.2	325.5	430.7	2443.6	3160.9	3590.0	5662.7	4401.2	1382.9	910.1
82.5°	276.9	273.7	286.6	270.4	827.5	3586.8	3002.2	2952.0	2072.7	744.9	434.1
85°	183.0	178.1	234.7	246.1	393.5	2848.3	3228.9	2320.5	1544.8	398.4	184.6
87.5°	89.0	90.6	134.3	166.7	208.9	902.0	3093.0	1834.7	1193.5	173.3	74.5
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°	6443.3	6443.3	6443.3	6443.3	6443.3	6443.3	6443.3	6443.3	6443.3	6443.3	6443.3
2.5°	6339.6	6291.0	6247.4	6192.2	6150.2	6114.6	6066.0	6064.4	6056.3	6067.6	6070.8
5°	6198.8	6117.7	5994.7	5857.0	5759.9	5632.1	5507.2	5465.2	5418.2	5413.4	5428.0
7.5°	5986.7	5860.4	5649.8	5439.2	5228.8	5013.4	4809.3	4705.7	4605.3	4574.6	4589.1
10°	5750.2	5590.0	5267.7	4924.4	4628.0	4307.5	3996.5	3795.7	3612.8	3535.0	3554.5
12.5°	5565.5	5361.5	4908.2	4462.8	4019.1	3559.3	3149.5	2752.9	2453.4	2318.9	2327.0
15°	5406.9	5146.2	4571.4	3978.7	3423.3	2793.3	2224.9	1765.1	1502.8	1405.6	1402.3
17.5°	5235.2	4919.5	4220.0	3528.5	2807.9	2029.0	1489.7	1217.7	1114.1	1081.6	1081.6
20°	5052.2	4686.3	3852.3	3037.9	2160.2	1416.8	1120.5	1015.4	976.5	966.8	965.0
22.5°	4882.3	4458.0	3483.2	2514.7	1562.6	1075.2	953.8	913.2	906.7	915.0	915.0
25°	4747.8	4257.2	3109.2	1964.2	1136.7	900.3	848.4	843.7	867.9	897.0	902.0
27.5°	4647.4	4077.4	2739.9	1434.8	893.9	783.7	766.0	786.9	843.7	902.0	913.2
30°	4577.9	3923.5	2297.9	1031.6	744.9	686.6	694.7	731.8	817.7	906.7	931.2
32.5°	4547.0	3798.9	1852.6	791.9	636.4	604.0	625.1	673.5	762.8	851.8	880.9
35°	4576.1	3708.3	1441.2	657.4	557.0	532.8	557.0	607.3	665.6	709.2	727.1
37.5°	4681.4	3675.9	1085.0	583.0	505.2	481.0	500.4	534.4	560.4	576.5	584.5
40°	4903.3	3709.9	850.2	544.2	476.1	448.6	453.5	469.6	487.4	500.4	502.1
42.5°	5256.3	3821.6	756.3	529.6	458.2	422.7	414.6	425.8	445.3	463.2	466.4
45°	5725.8	4007.8	746.5	534.4	450.2	401.6	385.5	396.7	422.7	451.8	456.7
47.5°	6333.1	4302.5	791.9	560.4	455.0	390.3	366.0	377.3	411.3	450.2	456.7
50°	7052.1	4710.6	876.0	599.2	477.7	390.3	357.9	367.5	403.2	446.9	453.5
52.5°	7899.1	5279.0	963.5	637.9	510.1	404.9	361.1	359.5	391.9	432.4	440.4
55°	8833.4	5985.0	1047.8	672.0	527.9	424.3	369.3	349.8	375.8	408.1	414.6
57.5°	9932.9	6951.8	1195.0	704.5	537.6	438.8	378.9	340.1	354.7	377.3	382.1
60°	11424.3	8371.8	1481.7	759.4	555.4	445.3	380.5	330.3	328.7	344.9	346.6
62.5°	13369.0	10034.8	1755.4	824.3	591.1	446.9	374.1	323.8	307.7	312.5	312.5
65°	14752.0	10647.0	1676.0	879.4	623.5	445.3	367.5	319.0	291.5	283.3	283.3
67.5°	13965.1	9405.0	1423.4	893.9	626.7	427.6	353.0	307.7	276.9	257.5	257.5
69°	12808.8	8243.9	1306.8	867.9	600.7	406.5	336.9	296.4	267.2	244.5	244.5
70°	11866.4	7364.7	1235.6	837.2	570.1	388.6	322.2	285.0	257.5	238.1	236.4
72.5°	8859.3	4914.6	1055.8	722.1	467.9	328.7	281.8	254.2	231.6	218.6	218.6
75°	4675.0	2463.1	864.7	589.5	361.1	262.3	231.6	213.7	200.9	199.2	197.5
77.5°	1531.9	1114.1	621.8	443.8	265.5	204.1	184.6	173.3	171.7	178.1	178.1
80°	827.5	665.6	399.9	299.6	184.6	152.3	142.6	140.9	145.7	155.4	155.4
82.5°	401.6	328.7	238.1	184.6	126.3	111.7	111.7	113.4	119.8	131.2	131.2
85°	173.3	155.4	137.6	103.7	77.8	69.6	79.3	87.5	92.3	100.4	103.7
87.5°	82.6	72.9	63.2	40.5	34.0	35.7	42.1	51.8	61.5	68.0	69.6
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)