

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: P270657

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270657
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24283)
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-AFL-7027-800-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 2700K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21223.5 lumens
Efficiency: N/A
Efficacy: 85.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B2 - U0 - G2

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

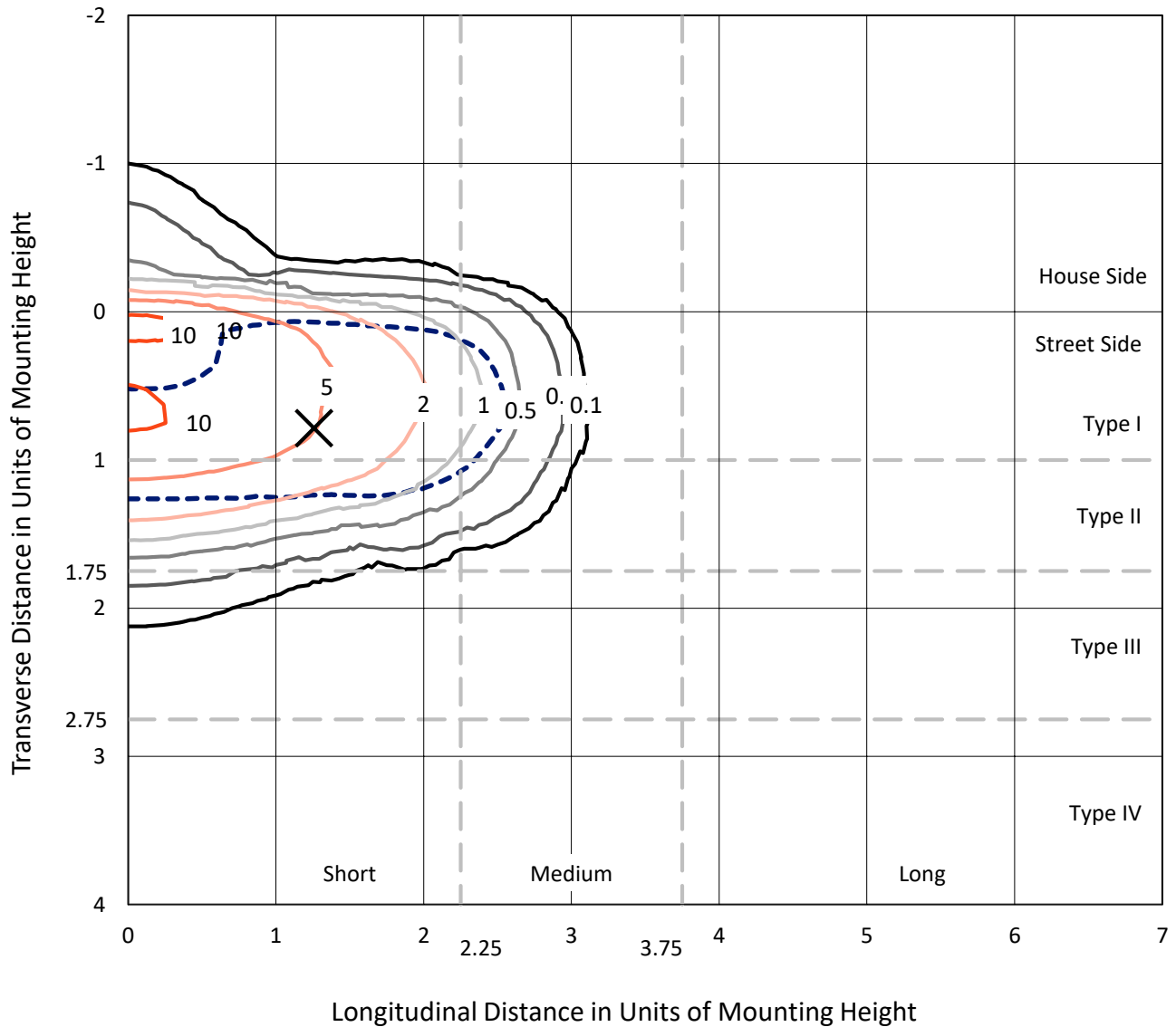


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

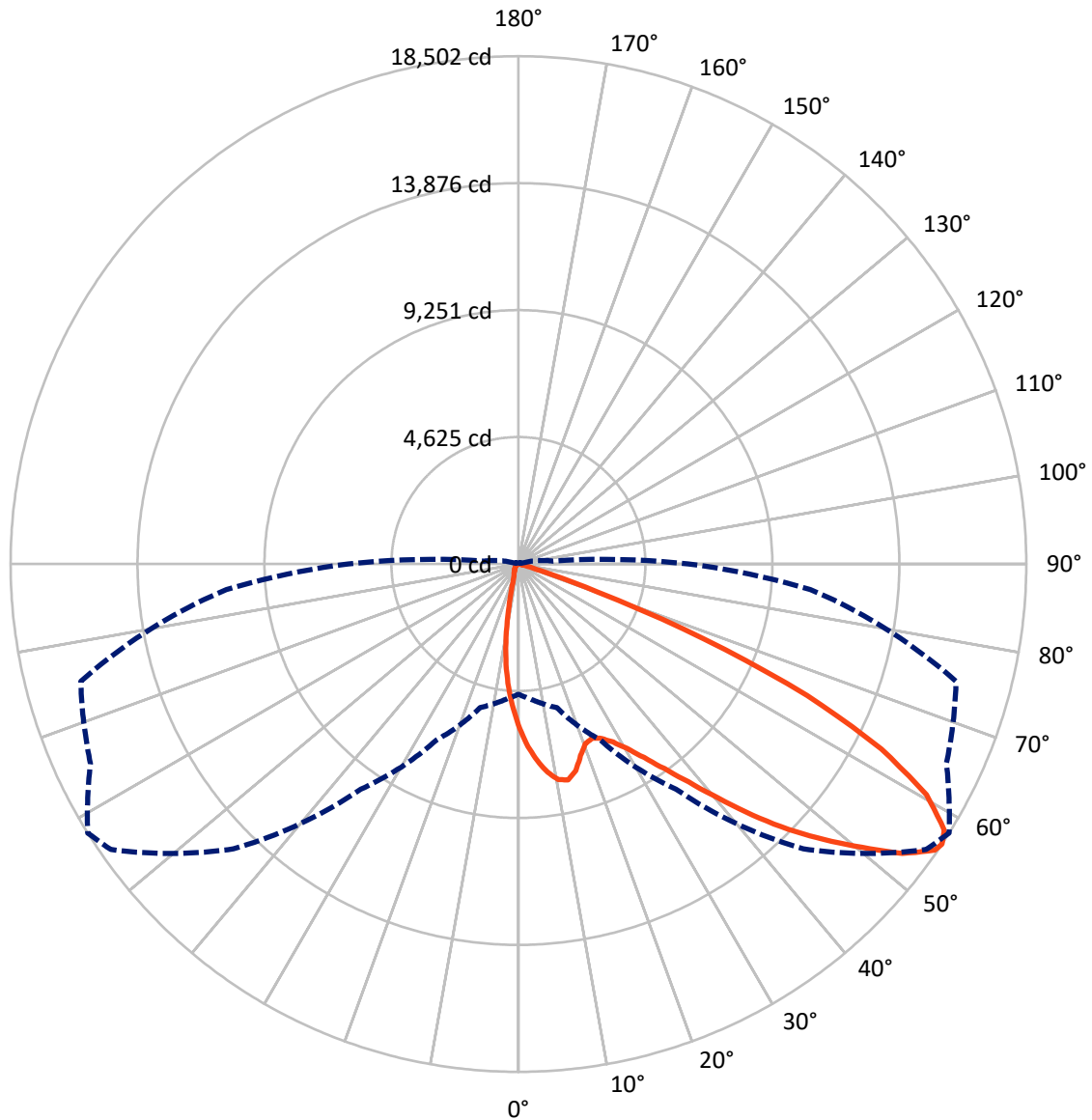


Based on 25 foot mounting height. Maximum calculated value = 11.9 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 56-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1324.8	0.0	1324.8
	% Fixture	6.2	0.0	6.2
Street Side	Lumens	19898.8	0.0	19898.8
	% Fixture	93.8	0.0	93.8
Total	Lumens	21223.5	0.0	21223.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	512.6	2.4
10°-20°	1192.8	5.6
20°-30°	2007.0	9.5
30°-40°	3436.8	16.2
40°-50°	5186.2	24.4
50°-60°	5390.9	25.4
60°-70°	3026.4	14.3
70°-80°	414.8	2.0
80°-90°	56.2	0.3
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°	21223.5	100.0
0°-180°	21223.5	100.0

Coefficient of Utilization



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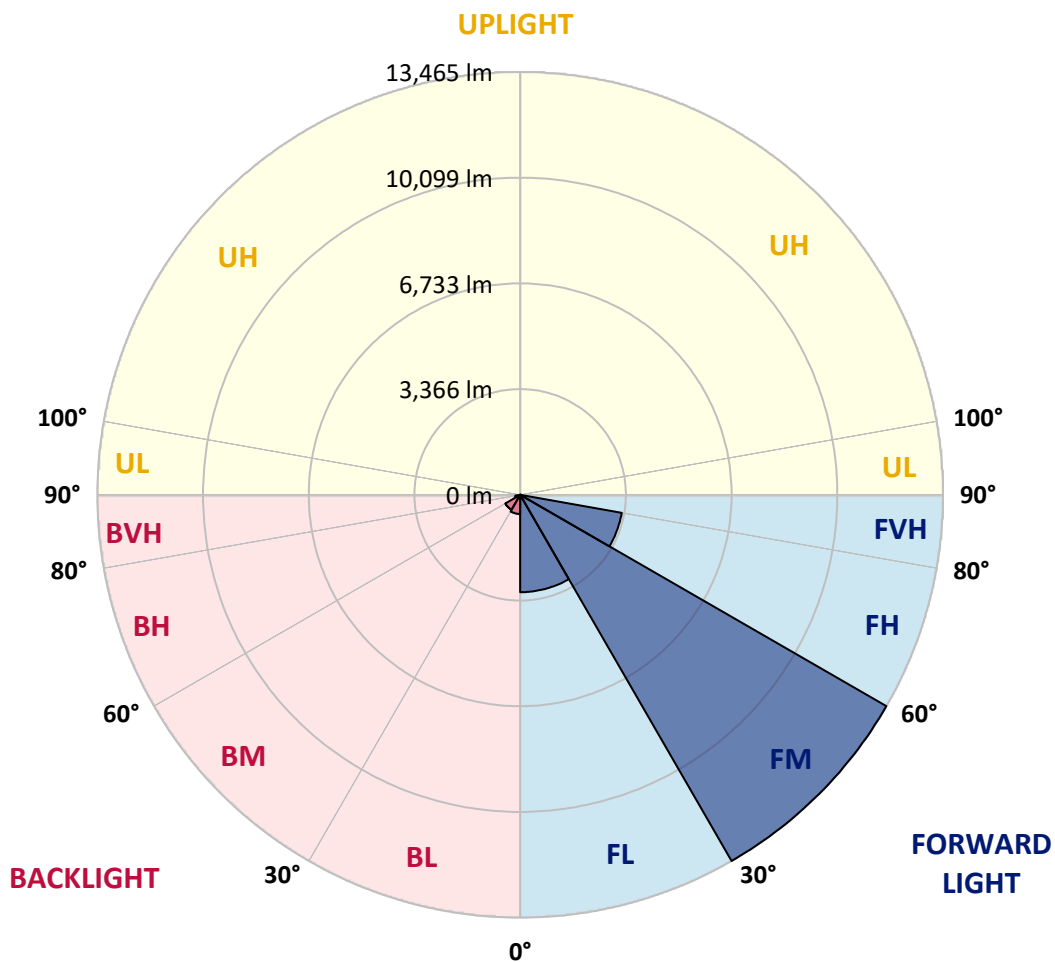
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3101.2	14.6			
FM (30°-60°)	13465.1	63.4			
FH (60°-80°)	3284.0	15.5			G2/5000
FVH (80°-90°)	48.4	0.2			G1/100
BL (0°-30°)	611.1	2.9	B2/1000		
BM (30°-60°)	548.8	2.6	B1/1000		
BH (60°-80°)	157.1	0.7	B1/500		G1/500
BVH (80°-90°)	7.8	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	6009.0	6009.0	6009.0	6009.0	6009.0	6009.0	6009.0	6009.0	6009.0	6009.0	6009.0
2.5°	7230.0	7186.3	7140.8	7056.6	6978.9	6859.2	6694.0	6653.4	6523.9	6310.2	6111.0
5°	7853.3	7845.3	7814.4	7746.4	7662.4	7516.6	7330.3	7205.7	7004.9	6668.1	6284.4
7.5°	7484.1	7552.2	7663.9	7822.6	7929.5	7914.8	7772.3	7663.9	7464.7	7004.9	6454.3
10°	6308.5	6321.6	6475.4	6809.0	7336.7	7829.1	8015.2	7986.1	7803.1	7299.5	6603.4
12.5°	5894.0	5902.1	5937.7	6044.6	6387.9	7074.5	7918.1	8070.4	8055.8	7581.3	6762.0
15°	5926.5	5931.2	5941.0	5975.0	6072.3	6417.1	7425.8	7812.9	8217.6	7848.5	6917.4
17.5°	6182.2	6179.0	6148.3	6115.9	6146.7	6260.0	6923.9	7332.0	8183.6	8073.5	7045.3
20°	6681.1	6697.3	6593.6	6449.6	6375.0	6379.9	6676.2	6982.2	7992.6	8248.4	7140.8
22.5°	7382.1	7393.5	7223.5	6974.1	6755.6	6645.4	6727.9	6889.9	7772.3	8410.4	7218.6
25°	8219.3	8219.3	7981.4	7626.7	7288.3	7046.9	6975.7	7037.2	7688.2	8593.4	7296.4
27.5°	9122.8	9155.3	8844.4	8379.6	7932.8	7579.7	7356.2	7344.9	7752.9	8823.3	7383.8
30°	10105.8	10134.9	9765.7	9197.3	8667.8	8216.1	7872.7	7798.2	8000.8	9132.6	7511.6
32.5°	11083.7	11108.0	10700.0	10120.3	9503.3	8972.2	8520.5	8402.2	8446.0	9584.3	7699.6
35°	12327.4	12332.2	11815.6	11125.9	10466.8	9843.4	9271.9	9155.3	9106.7	10154.4	7969.9
37.5°	13316.7	13277.8	12950.8	12298.2	11542.1	10891.1	10219.1	10066.9	9950.3	10955.8	8389.4
40°	13549.9	13549.9	13501.3	13305.3	12704.5	12078.0	11427.0	11200.3	10942.9	11899.8	8952.8
42.5°	12942.7	12981.4	13302.1	13728.0	13732.8	13331.2	12694.8	12503.9	12050.5	12974.9	9568.1
45°	11584.2	11595.4	12364.6	13514.2	14294.6	14524.7	14055.2	13791.0	13162.9	14092.3	10131.7
47.5°	11095.1	11130.7	11457.8	12863.3	14336.8	15491.4	15360.2	14997.5	14192.7	15112.5	10657.9
50°	10343.8	10387.6	10787.4	11904.7	13958.0	16111.6	16608.7	16219.9	15130.2	15962.5	10918.5
52.5°	8546.4	8614.3	9179.5	10636.8	13010.6	16137.4	17751.9	17518.7	16090.5	16417.6	10887.8
55°	5881.2	5931.2	6590.3	8303.6	11099.9	15345.7	18244.0	18404.4	16947.1	16519.7	10738.9
56°	4744.4	4932.2	5414.8	7074.5	10011.8	14671.9	18130.8	18501.5	17201.3	16503.4	10674.1
57.5°	3136.5	3172.2	3698.3	5126.5	8039.7	13209.8	17619.0	18294.3	17528.4	16420.7	10627.0
60°	1475.1	1491.4	1680.8	2365.7	4350.9	9626.4	15956.1	17076.6	17648.2	16247.6	10625.5
62.5°	961.8	965.0	987.7	1128.6	1779.5	5243.1	13227.6	14840.4	16655.6	16228.2	10594.7
65°	791.9	799.9	772.5	790.1	931.1	1977.1	9330.1	11569.5	14325.5	15771.5	10248.3
67.5°	698.0	699.5	662.3	641.2	681.8	867.9	4700.7	7297.9	10714.5	13400.8	8441.2
70°	636.4	634.7	592.6	544.1	545.7	576.4	1531.8	3031.2	5928.1	7956.9	4846.4
72.5°	565.2	568.4	544.1	476.0	453.4	408.0	576.4	817.6	2017.7	2555.1	1277.6
75°	495.4	488.9	464.8	420.9	378.9	273.7	289.9	348.2	526.2	521.3	275.3
77.5°	375.8	369.3	380.5	359.5	296.4	191.1	158.7	181.4	238.1	221.8	111.7
80°	286.6	283.3	259.2	307.7	270.4	144.1	108.4	111.7	129.5	118.1	55.1
82.5°	207.2	205.6	195.9	189.5	171.7	105.2	82.6	87.5	97.1	82.6	40.5
85°	79.3	79.3	153.8	129.5	118.1	71.2	58.3	63.2	74.5	59.8	27.5
87.5°	12.9	12.9	103.7	85.8	53.4	35.7	37.2	40.5	43.7	35.7	21.0
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°	6009.0	6009.0	6009.0	6009.0	6009.0	6009.0	6009.0	6009.0	6009.0	6009.0	6009.0
2.5°	5992.9	5884.3	5646.3	5416.4	5215.6	4995.4	4883.6	4754.1	4705.5	4608.3	4618.0
5°	6054.3	5827.7	5349.9	4846.4	4384.9	3915.4	3581.8	3267.7	3092.8	2919.5	2919.5
7.5°	6117.5	5771.0	5032.7	4227.9	3450.6	2645.9	2075.9	1619.3	1365.1	1195.0	1190.2
10°	6161.2	5698.0	4671.5	3510.5	2364.1	1363.4	822.6	647.7	584.5	556.9	555.4
12.5°	6217.9	5625.2	4260.2	2665.4	1313.2	647.7	513.3	485.8	474.5	467.9	467.9
15°	6266.4	5521.6	3761.6	1792.5	689.8	485.8	442.1	432.4	430.6	429.1	430.6
17.5°	6277.9	5374.3	3164.0	1049.3	500.4	424.2	404.9	396.7	396.7	395.2	395.2
20°	6251.9	5179.9	2503.3	647.7	432.4	390.3	369.3	359.5	357.9	357.9	357.9
22.5°	6198.5	4932.2	1850.8	490.7	393.5	359.5	332.0	322.2	322.2	323.8	325.5
25°	6132.1	4639.1	1271.1	422.7	364.4	327.2	299.6	289.9	293.0	296.4	298.0
27.5°	6047.8	4289.3	832.3	366.0	325.5	294.7	270.4	263.9	270.4	276.9	280.1
30°	5963.7	3905.7	563.4	317.5	281.8	259.2	244.5	242.9	252.7	267.2	268.9
32.5°	5908.6	3512.2	425.8	285.0	247.8	228.3	221.8	225.0	239.7	255.8	259.2
35°	5903.8	3128.3	362.7	259.2	225.0	207.2	204.1	213.7	230.0	242.9	246.1
37.5°	5979.8	2768.9	328.7	239.7	207.2	189.5	184.6	202.4	217.0	230.0	233.2
40°	6133.6	2446.7	306.1	221.8	192.6	171.7	168.4	183.0	197.5	212.1	217.0
42.5°	6326.5	2145.5	280.1	204.1	176.4	152.3	148.9	160.3	174.9	195.9	199.2
45°	6493.2	1865.4	252.7	184.6	158.7	131.2	129.5	142.6	153.8	173.3	176.4
47.5°	6634.1	1632.2	226.7	163.5	136.1	116.6	115.0	121.5	127.9	145.7	148.9
50°	6559.6	1434.7	200.9	134.3	110.1	100.4	98.8	98.8	106.9	124.7	127.9
52.5°	6376.6	1311.5	176.4	111.7	90.6	85.8	80.9	82.6	90.6	98.8	100.4
55°	6229.2	1253.2	155.4	98.8	76.0	71.2	66.4	64.8	66.4	63.2	59.8
56°	6193.6	1246.8	150.6	95.5	72.9	66.4	59.8	56.7	55.1	48.6	46.9
57.5°	6177.5	1246.8	142.6	89.0	68.0	59.8	51.8	45.4	38.8	34.0	34.0
60°	6164.4	1254.9	132.8	77.8	58.3	48.6	37.2	27.5	22.6	22.6	22.6
62.5°	6137.0	1251.7	121.5	64.8	50.1	37.2	22.6	17.7	16.2	17.7	19.5
65°	5827.7	1162.6	106.9	51.8	38.8	26.0	12.9	12.9	14.6	17.7	19.5
67.5°	4695.8	880.9	87.5	40.5	27.5	19.5	11.3	11.3	14.6	17.7	19.5
70°	2579.5	464.8	74.5	29.1	21.0	16.2	11.3	9.7	14.6	17.7	19.5
72.5°	629.9	194.4	68.0	22.6	19.5	14.6	9.7	9.7	14.6	17.7	19.5
75°	155.4	145.7	55.1	17.7	16.2	12.9	9.7	9.7	14.6	17.7	19.5
77.5°	72.9	192.6	37.2	16.2	14.6	11.3	9.7	9.7	14.6	17.7	17.7
80°	43.7	145.7	22.6	14.6	12.9	11.3	9.7	9.7	14.6	17.7	19.5
82.5°	26.0	42.1	16.2	14.6	12.9	9.7	9.7	9.7	14.6	17.7	19.5
85°	22.6	21.0	16.2	14.6	12.9	11.3	9.7	9.7	16.2	19.5	19.5
87.5°	17.7	16.2	14.6	12.9	12.9	11.3	9.7	9.7	14.6	17.7	19.5
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)