

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: P196962

Luminaire Tested: **NAV-AF-06-D-UNV-AFL-8030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196962
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-8030-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 80 CRI, 3000K, 1050mA 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: 24672 lumens
Efficiency: N/A
Efficacy: 74.1 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): 333
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

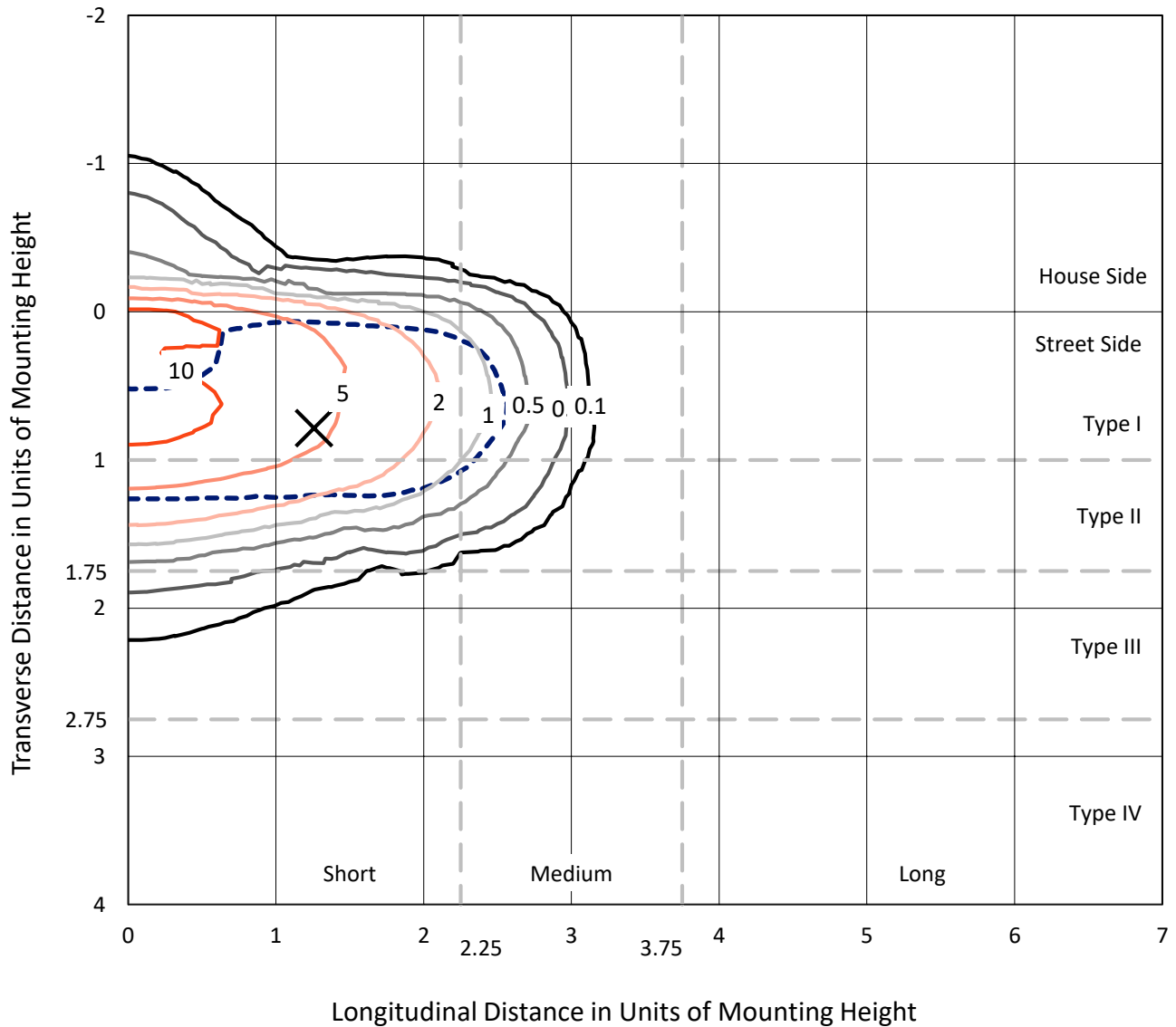


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Iso-Footcandle Lines of Horizontal Illumination

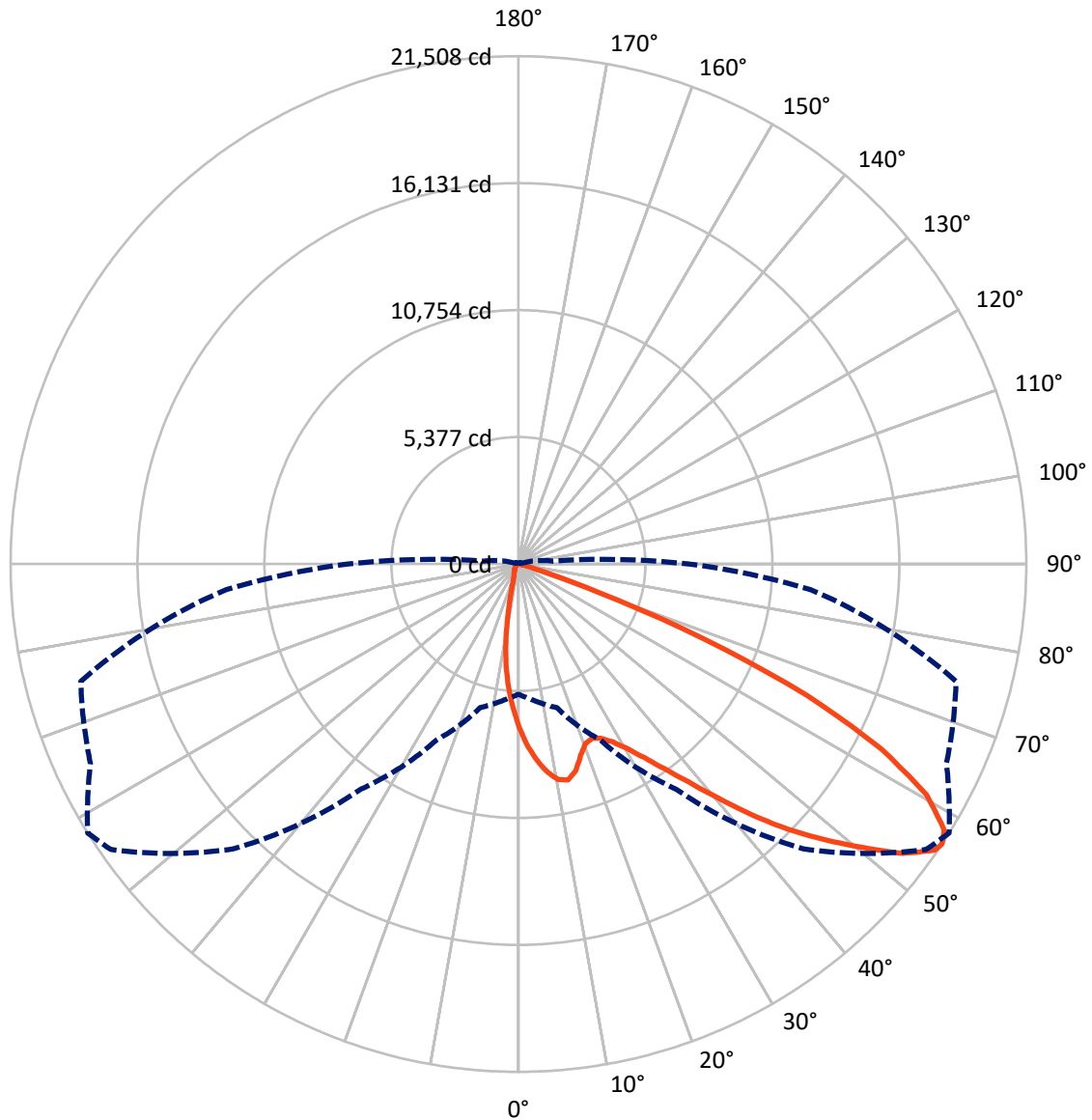
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 13.9 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	1540.0	0.0	1540.0
	% Fixture	6.2	0.0	6.2
Street Side	Lumens	23132.0	0.0	23132.0
	% Fixture	93.8	0.0	93.8
Total	Lumens	24672.0	0.0	24672.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	595.9	2.4
10°-20°	1386.6	5.6
20°-30°	2333.1	9.5
30°-40°	3995.2	16.2
40°-50°	6028.8	24.4
50°-60°	6266.8	25.4
60°-70°	3518.1	14.3
70°-80°	482.2	2.0
80°-90°	65.3	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°	24672.0	100.0
0°-180°	24672.0	100.0

Coefficient of Utilization



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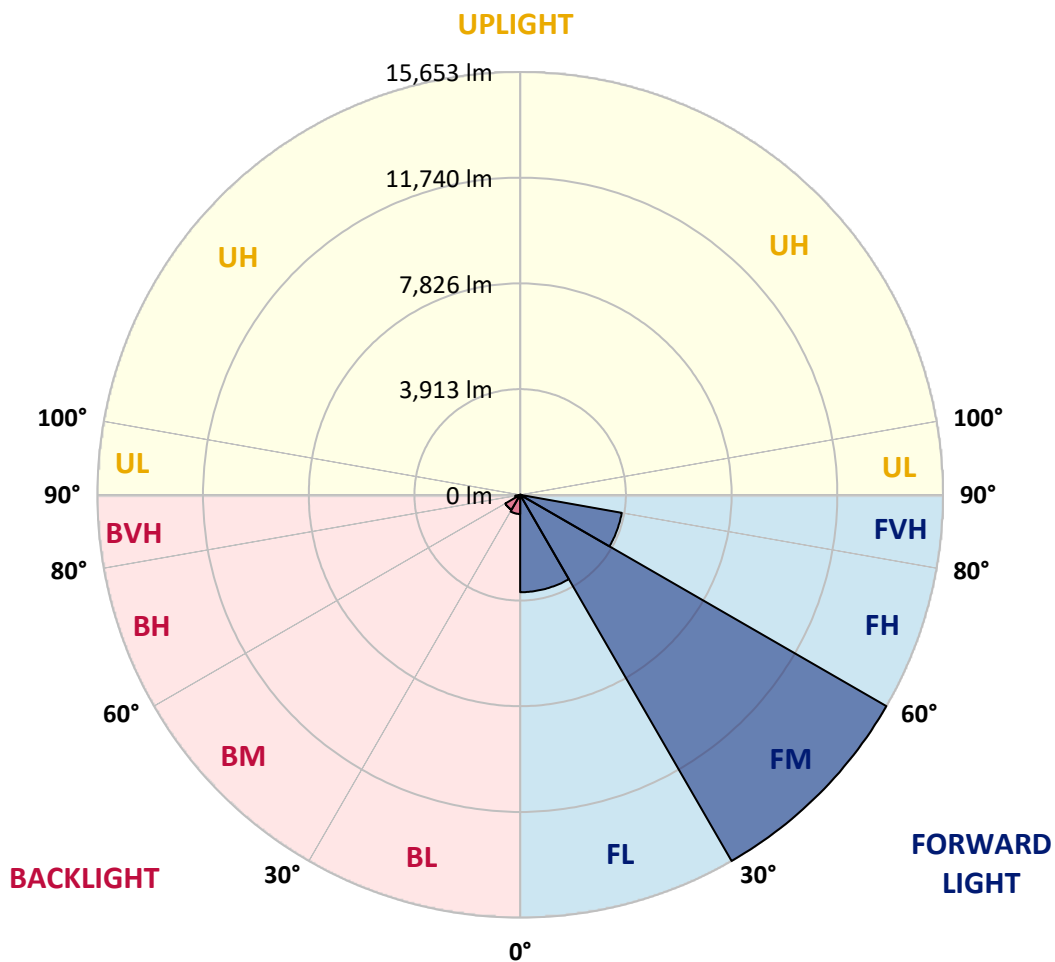
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3605.1	14.6			
FM	(30°-60°)	15652.9	63.4			
FH	(60°-80°)	3817.6	15.5			G2/5000
FVH	(80°-90°)	56.3	0.2			G1/100
BL	(0°-30°)	710.4	2.9	B2/1000		
BM	(30°-60°)	637.9	2.6	B1/1000		
BH	(60°-80°)	182.7	0.7	B1/500		G1/500
BVH	(80°-90°)	9.0	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°	6985.4	6985.4	6985.4	6985.4	6985.4	6985.4	6985.4	6985.4	6985.4	6985.4	6985.4
2.5°	8404.7	8353.9	8301.1	8203.3	8112.9	7973.6	7781.6	7734.6	7584.0	7335.5	7104.0
5°	9129.4	9120.0	9084.2	9005.1	8907.3	8737.9	8521.4	8376.4	8143.0	7751.5	7305.4
7.5°	8700.2	8779.3	8909.1	9093.6	9217.9	9200.9	9035.3	8909.1	8677.6	8143.0	7503.0
10°	7333.6	7348.7	7527.5	7915.3	8528.9	9101.1	9317.6	9283.7	9071.0	8485.6	7676.2
12.5°	6851.7	6861.2	6902.6	7026.8	7425.9	8224.0	9204.7	9381.6	9364.7	8813.1	7860.7
15°	6889.4	6895.0	6906.3	6945.9	7058.8	7459.7	8632.4	9082.3	9552.9	9123.7	8041.4
17.5°	7186.8	7183.0	7147.3	7109.6	7145.4	7277.2	8048.9	8523.3	9513.4	9385.4	8190.1
20°	7766.6	7785.4	7664.9	7497.4	7410.8	7416.4	7760.9	8116.7	9291.3	9588.7	8301.1
22.5°	8581.6	8594.8	8397.1	8107.3	7853.2	7725.2	7821.2	8009.4	9035.3	9776.9	8391.5
25°	9554.8	9554.8	9278.1	8865.9	8472.4	8192.0	8109.2	8180.7	8937.4	9989.6	8481.9
27.5°	10605.1	10642.8	10281.4	9741.1	9221.6	8811.3	8551.5	8538.3	9012.7	10256.9	8583.5
30°	11747.7	11781.6	11352.4	10691.7	10076.2	9551.0	9152.0	9065.4	9300.7	10616.4	8732.2
32.5°	12884.7	12912.9	12438.5	11764.7	11047.5	10430.1	9904.9	9767.5	9818.3	11141.6	8950.6
35°	14330.3	14336.0	13735.5	12933.6	12167.5	11442.8	10778.3	10642.8	10586.3	11804.2	9264.9
37.5°	15480.4	15435.2	15055.0	14296.4	13417.4	12660.7	11879.5	11702.6	11567.0	12736.0	9752.4
40°	15751.5	15751.5	15695.0	15467.2	14768.9	14040.4	13283.7	13020.2	12720.9	13833.4	10407.5
42.5°	15045.6	15090.8	15463.5	15958.5	15964.2	15497.4	14757.6	14535.5	14008.4	15083.2	11122.8
45°	13466.3	13479.5	14373.6	15710.1	16617.4	16884.7	16338.8	16031.9	15301.6	16382.1	11777.8
47.5°	12897.8	12939.3	13319.5	14953.4	16666.3	18008.4	17855.9	17434.3	16498.8	17567.9	12389.6
50°	12024.4	12075.3	12540.2	13839.0	16225.8	18729.4	19307.2	18855.5	17588.6	18556.2	12692.7
52.5°	9935.0	10014.1	10671.0	12365.1	15124.7	18759.5	20636.2	20365.1	18704.9	19085.1	12656.9
55°	6836.7	6895.0	7661.2	9652.7	12903.5	17839.0	21208.4	21394.8	19700.6	19203.7	12483.7
56°	5515.3	5733.6	6294.6	8224.0	11638.6	17055.9	21076.6	21507.7	19996.2	19184.9	12408.4
57.5°	3646.1	3687.5	4299.3	5959.5	9345.9	15356.2	20481.8	21266.8	20376.4	19088.9	12353.8
60°	1714.8	1733.6	1953.9	2750.1	5057.9	11190.6	18548.6	19851.2	20515.7	18887.5	12352.0
62.5°	1118.1	1121.9	1148.2	1312.0	2068.7	6095.0	15376.9	17251.7	19361.8	18864.9	12316.2
65°	920.5	929.9	897.9	918.6	1082.3	2298.3	10846.1	13449.4	16653.1	18334.1	11913.4
67.5°	811.3	813.2	769.9	745.4	792.5	1008.9	5464.5	8483.7	12455.5	15578.3	9812.7
70°	739.8	737.9	688.9	632.5	634.4	670.1	1780.7	3523.8	6891.3	9249.9	5633.9
72.5°	656.9	660.7	632.5	553.4	527.1	474.4	670.1	950.6	2345.4	2970.3	1485.2
75°	576.0	568.5	540.2	489.4	440.5	318.1	336.9	404.7	611.8	606.1	320.0
77.5°	436.7	429.2	442.4	417.9	344.5	222.1	184.5	210.8	276.7	257.9	129.9
80°	333.2	329.4	301.2	357.6	314.4	167.5	126.1	129.9	150.6	137.4	64.0
82.5°	240.9	239.1	227.8	220.2	199.5	122.4	96.0	101.6	112.9	96.0	47.1
85°	92.2	92.2	178.8	150.6	137.4	82.8	67.8	73.4	86.6	69.6	32.0
87.5°	15.1	15.1	120.5	99.8	62.1	41.4	43.3	47.1	50.8	41.4	24.5
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°	6985.4	6985.4	6985.4	6985.4	6985.4	6985.4	6985.4	6985.4	6985.4	6985.4	6985.4
2.5°	6966.6	6840.4	6563.7	6296.5	6063.0	5807.0	5677.2	5526.6	5470.1	5357.2	5368.5
5°	7038.1	6774.6	6219.3	5633.9	5097.4	4551.5	4163.8	3798.6	3595.3	3393.9	3393.9
7.5°	7111.5	6708.7	5850.3	4914.8	4011.3	3075.8	2413.2	1882.3	1586.8	1389.2	1383.5
10°	7162.3	6624.0	5430.6	4080.9	2748.2	1584.9	956.2	752.9	679.5	647.5	645.6
12.5°	7228.2	6539.3	4952.5	3098.3	1526.6	752.9	596.7	564.7	551.5	544.0	544.0
15°	7284.7	6418.8	4372.7	2083.8	801.9	564.7	513.9	502.6	500.7	498.8	500.7
17.5°	7297.9	6247.5	3678.1	1219.8	581.6	493.2	470.6	461.2	461.2	459.3	459.3
20°	7267.7	6021.6	2910.1	752.9	502.6	453.6	429.2	417.9	416.0	416.0	416.0
22.5°	7205.6	5733.6	2151.5	570.4	457.4	417.9	385.9	374.6	374.6	376.5	378.4
25°	7128.4	5392.9	1477.6	491.3	423.5	380.2	348.2	336.9	340.7	344.5	346.4
27.5°	7030.6	4986.3	967.5	425.4	378.4	342.6	314.4	306.8	314.4	321.9	325.6
30°	6932.7	4540.2	655.1	368.9	327.5	301.2	284.2	282.4	293.6	310.6	312.5
32.5°	6868.7	4082.8	495.1	331.3	288.0	265.4	257.9	261.6	278.6	297.4	301.2
35°	6863.0	3636.7	421.6	301.2	261.6	240.9	237.2	248.5	267.3	282.4	286.1
37.5°	6951.5	3218.8	382.1	278.6	240.9	220.2	214.6	235.3	252.2	267.3	271.1
40°	7130.3	2844.2	355.8	257.9	224.0	199.5	195.8	212.7	229.6	246.6	252.2
42.5°	7354.3	2494.1	325.6	237.2	205.2	176.9	173.2	186.4	203.3	227.8	231.5
45°	7548.2	2168.5	293.6	214.6	184.5	152.5	150.6	165.6	178.8	201.4	205.2
47.5°	7712.0	1897.4	263.5	190.1	158.1	135.5	133.6	141.2	148.7	169.4	173.2
50°	7625.4	1667.8	233.4	156.2	128.0	116.7	114.8	114.8	124.2	144.9	148.7
52.5°	7412.7	1524.7	205.2	129.9	105.4	99.8	94.1	96.0	105.4	114.8	116.7
55°	7241.4	1456.9	180.7	114.8	88.5	82.8	77.2	75.3	77.2	73.4	69.6
56°	7200.0	1449.4	175.1	111.1	84.7	77.2	69.6	65.9	64.0	56.5	54.6
57.5°	7181.2	1449.4	165.6	103.5	79.1	69.6	60.2	52.7	45.2	39.5	39.5
60°	7166.1	1458.8	154.4	90.4	67.8	56.5	43.3	32.0	26.4	26.4	26.4
62.5°	7134.1	1455.1	141.2	75.3	58.4	43.3	26.4	20.7	18.8	20.7	22.6
65°	6774.6	1351.5	124.2	60.2	45.2	30.1	15.1	15.1	16.9	20.7	22.6
67.5°	5458.8	1024.0	101.6	47.1	32.0	22.6	13.2	13.2	16.9	20.7	22.6
70°	2998.6	540.2	86.6	33.9	24.5	18.8	13.2	11.3	16.9	20.7	22.6
72.5°	732.2	225.9	79.1	26.4	22.6	16.9	11.3	11.3	16.9	20.7	22.6
75°	180.7	169.4	64.0	20.7	18.8	15.1	11.3	11.3	16.9	20.7	22.6
77.5°	84.7	224.0	43.3	18.8	16.9	13.2	11.3	11.3	16.9	20.7	20.7
80°	50.8	169.4	26.4	16.9	15.1	13.2	11.3	11.3	16.9	20.7	22.6
82.5°	30.1	48.9	18.8	16.9	15.1	11.3	11.3	11.3	16.9	20.7	22.6
85°	26.4	24.5	18.8	16.9	15.1	13.2	11.3	11.3	18.8	22.6	22.6
87.5°	20.7	18.8	16.9	15.1	15.1	13.2	11.3	11.3	16.9	20.7	22.6
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)