

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: P196596

Luminaire Tested: **NAV-AF-06-D-UNV-SL3-7030-800-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196596
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-SL3-7030-800-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 3000K, 800mA 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: 23895 lumens
Efficiency: N/A
Efficacy: 96.0 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 - G4

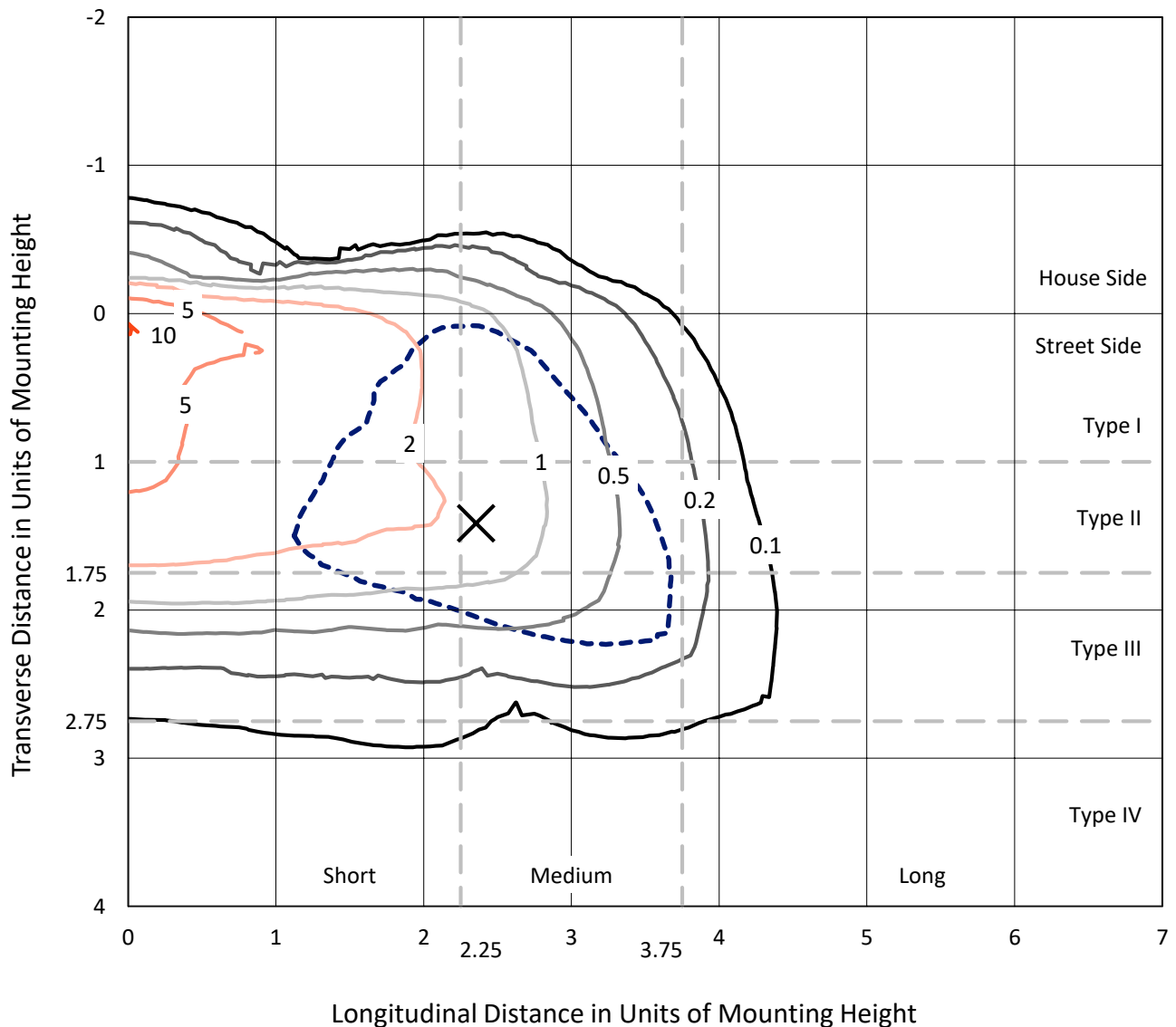
Input Watts (W): 249
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

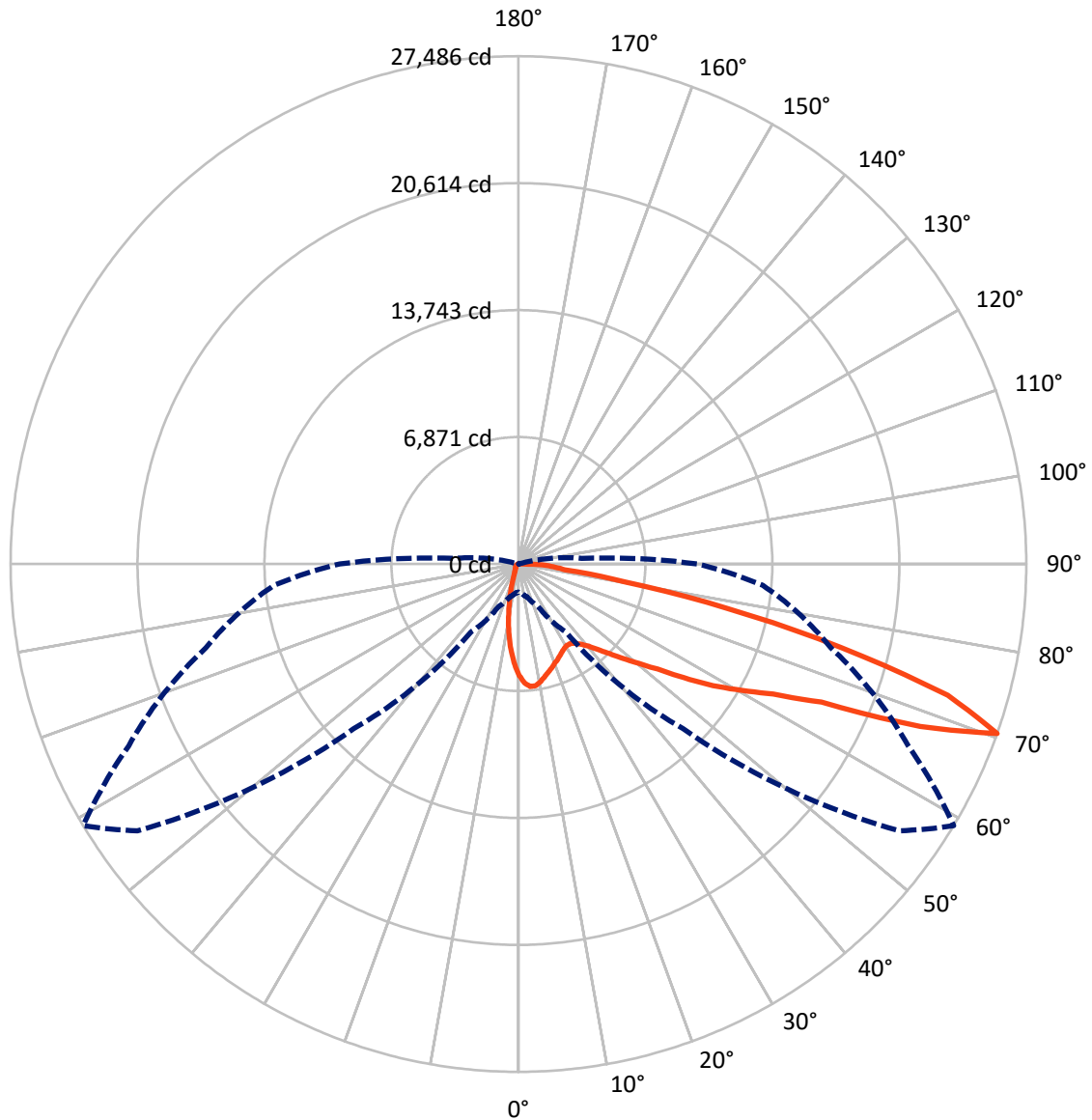
✕ Max cd
 - - - 1/2 Max cd



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

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1836.8	0.0	1836.8
	% Fixture	7.7	0.0	7.7
Street Side	Lumens	22058.1	0.0	22058.1
	% Fixture	92.3	0.0	92.3
Total	Lumens	23895.0	0.0	23895.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	496.8	2.1
10°-20°	1042.1	4.4
20°-30°	1410.7	5.9
30°-40°	2035.8	8.5
40°-50°	3381.0	14.1
50°-60°	5171.7	21.6
60°-70°	6432.3	26.9
70°-80°	3555.8	14.9
80°-90°	368.7	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°	23895.0	100.0
0°-180°	23895.0	100.0

Coefficient of Utilization



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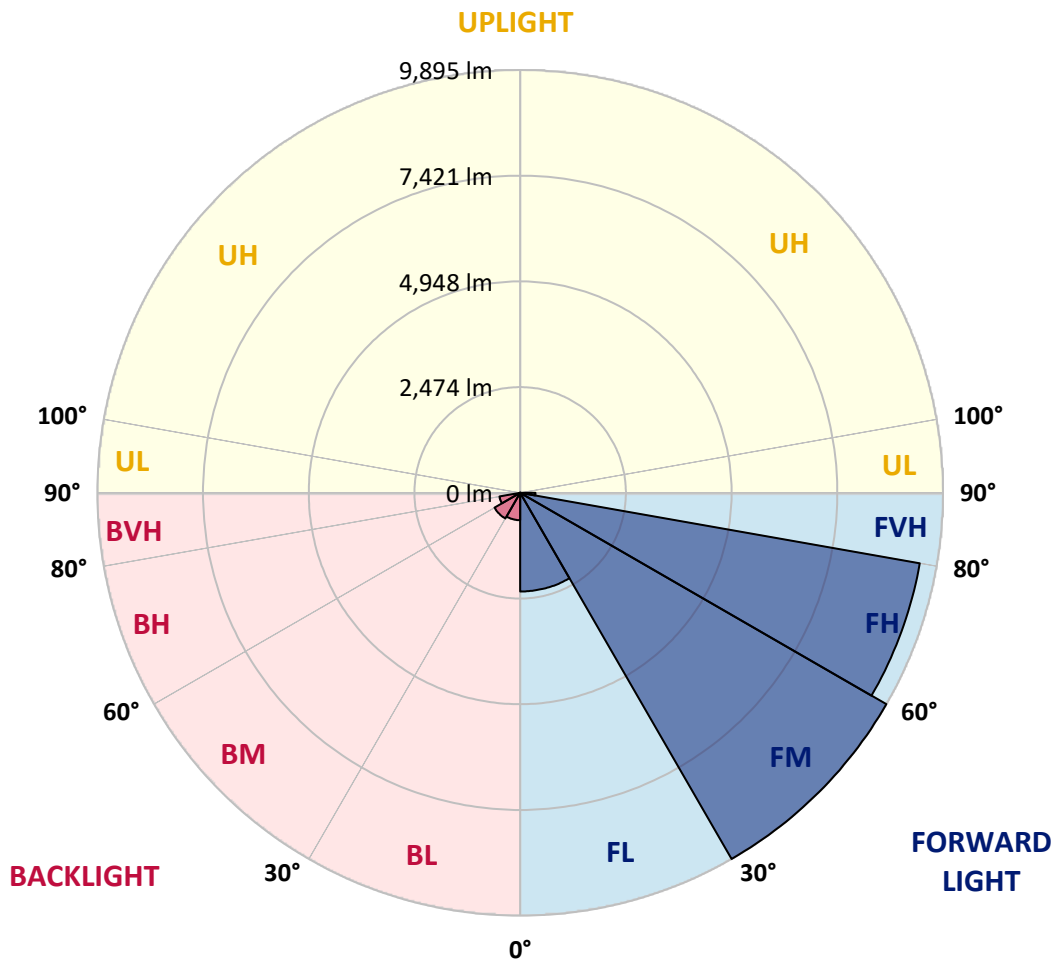
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2309.5	9.7			
FM	(30°-60°)	9895.2	41.4			
FH	(60°-80°)	9495.4	39.7			G4/12000
FVH	(80°-90°)	358.0	1.5			G3/500
BL	(0°-30°)	640.1	2.7	B2/1000		
BM	(30°-60°)	693.4	2.9	B1/1000		
BH	(60°-80°)	492.7	2.1	B1/500		G1/500
BVH	(80°-90°)	10.6	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-G4

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	6042.1	6042.1	6042.1	6042.1	6042.1	6042.1	6042.1	6042.1	6042.1	6042.1	6042.1
2.5°	6829.9	6819.1	6774.1	6765.0	6714.5	6613.6	6496.4	6449.6	6354.1	6202.6	6034.9
5°	6943.4	6948.9	6952.5	6932.6	6925.4	6842.5	6712.8	6656.8	6528.9	6280.1	5973.6
7.5°	6518.1	6532.5	6577.5	6597.4	6683.9	6716.3	6689.3	6653.3	6552.3	6258.5	5827.7
10°	6069.3	6096.2	6145.0	6177.4	6283.7	6370.3	6480.1	6489.2	6467.6	6186.4	5663.7
12.5°	5683.4	5708.7	5762.8	5827.7	5935.8	6047.6	6211.6	6269.3	6341.4	6139.5	5546.4
15°	5351.8	5359.0	5411.3	5492.4	5634.8	5788.0	5982.7	6067.3	6208.0	6121.5	5456.4
17.5°	5061.6	5063.4	5097.6	5171.6	5344.6	5546.4	5773.6	5885.4	6063.8	6096.2	5377.0
20°	4870.6	4868.7	4870.6	4910.2	5063.4	5303.1	5578.9	5696.1	5925.0	6065.6	5295.9
22.5°	4805.7	4796.6	4755.2	4740.8	4838.1	5049.0	5378.9	5532.1	5800.7	6056.6	5236.5
25°	4885.0	4879.5	4791.2	4708.3	4717.3	4848.9	5175.2	5362.7	5703.4	6089.0	5222.0
27.5°	5140.8	5130.0	4994.9	4832.6	4730.0	4753.4	5023.7	5220.2	5625.8	6168.3	5241.8
30°	5476.2	5477.9	5333.8	5137.3	4895.8	4762.4	4942.7	5128.3	5573.6	6287.4	5285.1
32.5°	5849.3	5847.5	5744.8	5517.6	5209.4	4928.2	4978.7	5135.5	5580.8	6462.1	5368.0
35°	6235.1	6215.2	6181.1	5980.9	5620.4	5218.4	5142.8	5258.1	5656.5	6692.9	5508.7
37.5°	6680.3	6673.1	6707.3	6496.4	6128.7	5645.7	5431.2	5508.7	5847.5	7033.6	5735.8
40°	7388.6	7349.0	7365.2	7078.7	6702.0	6220.6	5834.9	5854.7	6152.2	7484.3	6094.5
42.5°	8738.8	8578.4	8277.4	7740.2	7332.8	6858.7	6363.0	6328.9	6583.0	8030.4	6566.7
45°	10352.1	10168.2	9409.4	8470.3	7963.7	7543.7	7015.5	6923.6	7112.9	8681.0	7176.0
47.5°	11698.6	11500.3	10494.5	9232.7	8605.5	8250.2	7738.4	7630.2	7747.3	9436.4	7907.8
50°	12158.3	12048.3	11165.1	9867.2	9252.5	9043.5	8645.0	8464.9	8493.7	10251.1	8762.3
52.5°	11947.4	11909.5	11318.2	10301.6	9851.1	9919.5	9638.3	9449.1	9416.6	11141.6	9706.8
55°	11502.2	11484.1	11195.7	10543.2	10379.2	10721.6	11031.7	10867.7	10561.2	12088.0	10487.2
57.5°	10865.9	10934.3	11141.6	11008.2	11028.1	11568.8	12325.9	12410.6	11952.8	12841.5	11065.9
60°	9166.0	9349.9	10299.9	11507.5	12432.3	12978.5	13712.0	13870.7	13131.7	13357.0	11734.7
62.5°	6775.8	7039.0	8392.8	10611.7	13205.5	15658.8	15556.2	15485.8	14256.4	14047.4	12951.4
65°	3980.1	4288.3	5432.9	8291.8	12039.3	17382.0	18999.0	18025.6	15970.7	15482.1	14889.2
67.5°	1982.8	1984.5	2501.9	4376.6	8897.4	16179.7	24024.6	23462.2	19615.5	17596.6	15653.5
70°	1524.9	1566.4	1851.2	2543.4	4499.2	12601.8	25176.4	27485.5	23278.2	17502.9	13281.2
72.5°	1292.4	1319.6	1647.5	2213.6	3363.5	6918.2	21794.8	24294.9	22213.0	14788.2	9789.7
75°	930.2	951.7	1458.3	2008.0	3096.9	3432.1	14950.5	18018.4	16666.5	10402.6	5387.9
77.5°	230.7	228.9	508.3	1629.5	2770.5	2858.9	8578.4	11554.3	9562.6	4259.5	1384.4
80°	102.7	99.1	115.4	342.5	2577.7	2698.4	3772.7	5834.9	3668.2	690.4	423.6
82.5°	72.1	68.5	72.1	126.2	861.6	2503.7	2280.2	2529.1	1342.9	236.1	180.3
85°	23.4	21.7	39.7	106.3	241.6	1443.9	2224.4	1889.1	998.6	100.9	120.7
87.5°	3.6	3.6	14.4	57.7	70.3	481.3	1305.1	1308.7	448.8	59.4	54.1
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°	6042.1	6042.1	6042.1	6042.1	6042.1	6042.1	6042.1	6042.1	6042.1	6042.1	6042.1
2.5°	5950.3	5843.9	5694.3	5544.7	5409.5	5270.6	5158.9	5106.7	5083.2	5050.7	4980.5
5°	5813.2	5620.4	5292.3	4969.6	4668.6	4380.2	4133.3	3992.7	3841.2	3834.0	3760.1
7.5°	5593.3	5319.4	4802.1	4300.9	3841.2	3401.5	3022.8	2777.7	2610.1	2505.6	2433.4
10°	5348.2	4996.8	4311.7	3606.9	2981.4	2393.8	1907.1	1589.8	1397.0	1299.6	1243.8
12.5°	5153.5	4712.0	3828.7	2941.8	2157.7	1483.5	1031.1	800.4	697.6	658.0	639.9
15°	4985.9	4450.5	3376.2	2346.9	1440.2	852.7	596.7	520.9	504.7	504.7	502.9
17.5°	4816.4	4198.2	2936.4	1762.9	906.8	558.8	470.5	459.7	461.4	466.9	466.9
20°	4656.0	3958.5	2512.8	1256.4	594.8	447.1	427.2	423.6	429.1	436.3	434.5
22.5°	4526.3	3747.5	2116.3	863.4	457.8	405.6	393.0	387.6	391.1	396.6	394.8
25°	4434.3	3567.4	1752.1	602.0	398.4	369.6	355.1	347.9	344.2	347.9	346.2
27.5°	4378.4	3415.9	1409.6	452.5	356.9	333.5	315.4	301.0	292.0	292.0	288.5
30°	4342.4	3273.4	1104.9	375.0	322.7	297.4	272.2	252.4	237.9	234.4	232.5
32.5°	4340.6	3150.9	825.6	331.7	290.2	261.3	230.7	205.5	189.2	185.6	183.9
35°	4385.6	3051.7	607.5	299.3	261.3	227.2	192.9	165.8	151.5	151.5	149.5
37.5°	4502.8	2994.0	459.7	274.0	237.9	198.3	162.2	137.0	124.3	128.0	128.0
40°	4720.9	2983.3	375.0	254.1	218.1	173.0	131.5	111.8	106.3	111.8	111.8
42.5°	5054.4	3040.9	333.5	239.8	200.1	147.8	110.0	95.5	93.8	99.1	99.1
45°	5488.7	3154.6	310.1	227.2	180.3	122.6	91.9	82.9	81.1	88.3	88.3
47.5°	6015.2	3307.8	288.5	212.7	160.4	100.9	77.5	70.3	70.3	77.5	79.3
50°	6638.8	3515.0	266.8	198.3	144.2	84.6	64.9	59.4	61.3	68.5	70.3
52.5°	7356.2	3769.1	246.9	185.6	126.2	68.5	54.1	50.5	52.2	59.4	61.3
55°	7974.5	3990.9	223.6	173.0	102.7	55.8	45.1	43.2	45.1	54.1	54.1
57.5°	8513.5	4203.5	201.9	153.2	81.1	45.1	36.0	36.0	39.7	48.6	50.5
60°	9229.1	4538.8	183.9	129.8	61.3	34.2	28.9	30.6	36.0	43.2	45.1
62.5°	10496.3	5108.4	160.4	108.1	45.1	27.0	23.4	25.2	32.4	41.4	43.2
65°	12082.6	5647.4	133.4	90.1	34.2	19.7	18.0	23.4	32.4	41.4	43.2
67.5°	11920.3	4912.0	104.6	72.1	25.2	16.2	14.4	21.7	30.6	41.4	43.2
70°	9667.1	3442.9	77.5	48.6	19.7	14.4	14.4	21.7	30.6	39.7	41.4
72.5°	6705.6	1916.1	59.4	32.4	18.0	14.4	12.6	19.7	28.9	39.7	41.4
75°	3190.5	587.6	46.9	23.4	16.2	12.6	10.8	19.7	28.9	39.7	41.4
77.5°	612.8	149.5	37.8	19.7	14.4	12.6	10.8	18.0	28.9	37.8	39.7
80°	207.3	66.6	30.6	18.0	14.4	12.6	10.8	18.0	27.0	36.0	37.8
82.5°	113.5	37.8	27.0	16.2	14.4	10.8	9.0	16.2	25.2	36.0	37.8
85°	88.3	27.0	21.7	16.2	14.4	10.8	9.0	16.2	25.2	34.2	36.0
87.5°	45.1	19.7	18.0	16.2	14.4	10.8	9.0	14.4	23.4	32.4	36.0
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)