

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: P196602

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196602
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-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 3000K, 1050mA 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: 29575.4 lumens
Efficiency: N/A
Efficacy: 88.8 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): 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

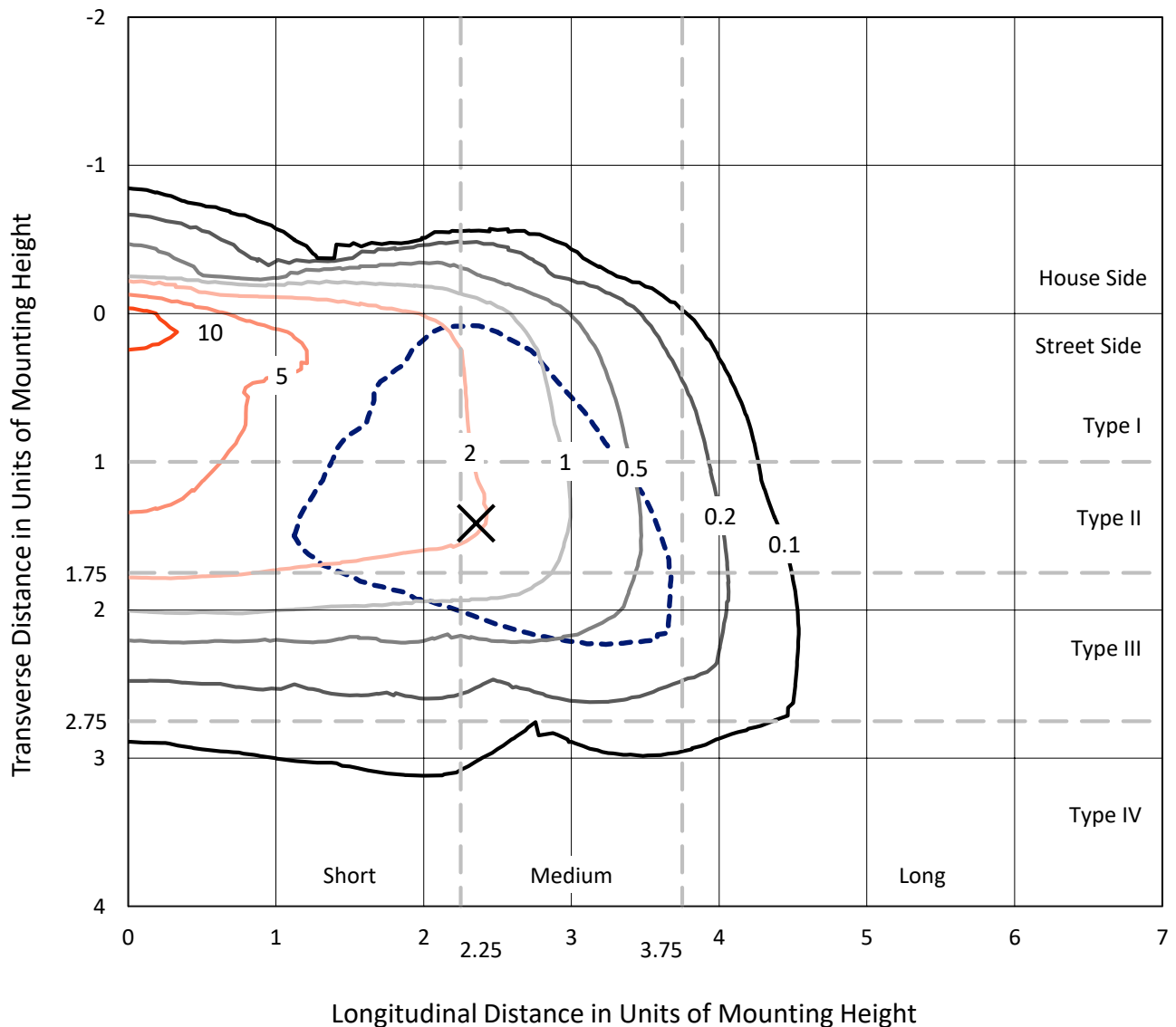


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

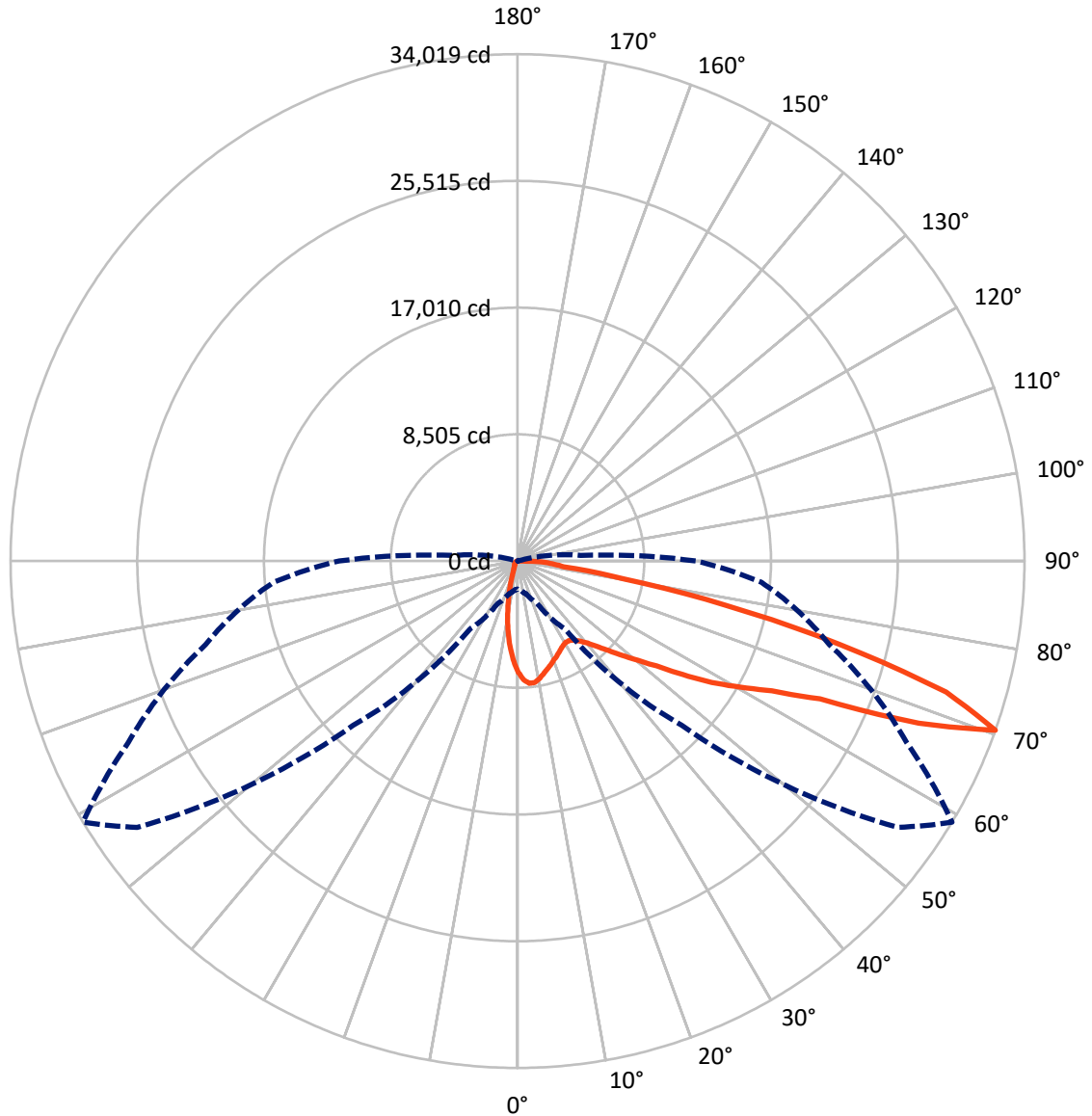


Based on 25 foot mounting height. Maximum calculated value = 12.7 fc
 Type III - Medium - Non-Cutoff

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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	2273.6	0.0	2273.6
	% Fixture	7.7	0.0	7.7
Street Side	Lumens	27301.8	0.0	27301.8
	% Fixture	92.3	0.0	92.3
Total	Lumens	29575.4	0.0	29575.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	615.0	2.1
10°-20°	1289.8	4.4
20°-30°	1746.0	5.9
30°-40°	2519.8	8.5
40°-50°	4184.8	14.1
50°-60°	6401.1	21.6
60°-70°	7961.5	26.9
70°-80°	4401.1	14.9
80°-90°	456.3	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°	29575.4	100.0
0°-180°	29575.4	100.0



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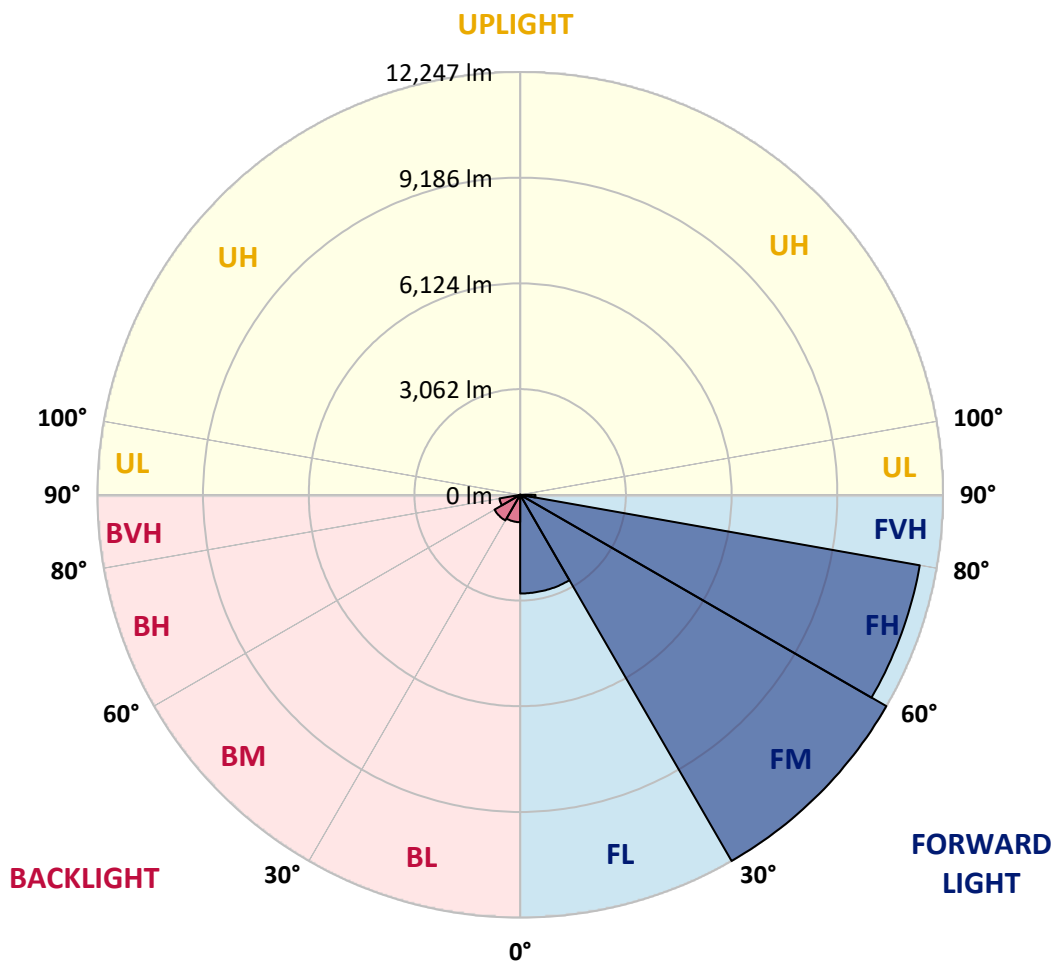
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2858.6	9.7			
FM	(30°-60°)	12247.5	41.4			
FH	(60°-80°)	11752.6	39.7			G4/12000
FVH	(80°-90°)	443.2	1.5			G3/500
BL	(0°-30°)	792.3	2.7	B2/1000		
BM	(30°-60°)	858.2	2.9	B1/1000		
BH	(60°-80°)	609.9	2.1	B2/1000		G2/1000
BVH	(80°-90°)	13.2	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°	7478.6	7478.6	7478.6	7478.6	7478.6	7478.6	7478.6	7478.6	7478.6	7478.6	7478.6
2.5°	8453.5	8440.2	8384.3	8373.2	8310.7	8185.8	8040.8	7982.8	7864.5	7677.1	7469.6
5°	8594.2	8600.8	8605.3	8580.6	8571.8	8469.1	8308.5	8239.3	8081.0	7773.0	7393.8
7.5°	8067.6	8085.4	8141.1	8165.7	8272.8	8313.0	8279.5	8234.9	8110.0	7746.3	7213.1
10°	7512.0	7545.5	7605.7	7645.9	7777.5	7884.5	8020.7	8031.8	8005.1	7657.0	7010.1
12.5°	7034.5	7065.8	7132.8	7213.1	7346.9	7485.3	7688.2	7759.7	7848.8	7599.0	6865.0
15°	6624.1	6633.0	6697.7	6798.1	6974.3	7164.0	7404.9	7509.8	7683.7	7576.7	6753.5
17.5°	6264.8	6267.1	6309.5	6401.0	6615.1	6865.0	7146.1	7284.5	7505.3	7545.5	6655.3
20°	6028.4	6026.0	6028.4	6077.4	6267.1	6563.9	6905.1	7050.2	7333.5	7507.5	6554.9
22.5°	5948.1	5936.9	5885.6	5867.8	5988.2	6249.2	6657.5	6847.2	7179.5	7496.4	6481.3
25°	6046.2	6039.6	5930.1	5827.6	5838.7	6001.6	6405.5	6637.4	7059.1	7536.6	6463.4
27.5°	6363.0	6349.6	6182.3	5981.5	5854.3	5883.3	6218.0	6461.1	6963.2	7634.7	6488.0
30°	6778.0	6780.2	6601.8	6358.6	6059.6	5894.5	6117.7	6347.4	6898.5	7782.0	6541.5
32.5°	7239.8	7237.6	7110.4	6829.4	6447.8	6099.7	6162.2	6356.3	6907.4	7998.5	6644.2
35°	7717.3	7692.7	7650.4	7402.7	6956.4	6459.0	6365.2	6508.0	7001.2	8283.9	6818.1
37.5°	8268.3	8259.5	8301.8	8040.8	7585.7	6987.6	6722.1	6818.1	7237.6	8705.7	7099.2
40°	9145.1	9096.1	9116.1	8761.4	8295.1	7699.4	7221.9	7246.5	7614.6	9263.4	7543.3
42.5°	10816.2	10617.7	10245.1	9580.2	9075.9	8489.2	7875.7	7833.4	8147.9	9939.5	8127.8
45°	12813.1	12585.5	11646.2	10483.8	9856.9	9337.1	8683.4	8569.5	8803.8	10744.9	8881.9
47.5°	14479.7	14234.2	12989.3	11427.5	10651.1	10211.6	9578.0	9444.2	9589.1	11679.7	9787.7
50°	15048.6	14912.5	13819.2	12212.9	11452.1	11193.3	10700.2	10477.1	10512.8	12688.1	10845.3
52.5°	14787.5	14740.7	14008.9	12750.5	12192.8	12277.6	11929.6	11695.3	11655.1	13790.2	12014.3
55°	14236.5	14214.2	13857.2	13049.5	12846.4	13270.4	13654.1	13451.1	13071.9	14961.5	12980.3
57.5°	13448.9	13533.7	13790.2	13625.1	13649.6	14319.0	15256.1	15361.0	14794.2	15894.2	13696.5
60°	11345.1	11572.5	12748.4	14243.1	15387.7	16063.8	16971.8	17168.1	16253.4	16532.2	14524.3
62.5°	8386.6	8712.4	10387.9	13134.3	16344.8	19381.3	19254.1	19167.2	17645.6	17386.8	16030.3
65°	4926.2	5307.7	6724.5	10262.9	14901.4	21514.2	23515.6	22310.7	19767.3	19162.7	18428.6
67.5°	2454.2	2456.3	3096.7	5417.1	11012.6	20026.1	29735.7	29039.6	24278.5	21779.7	19374.6
70°	1887.5	1938.8	2291.2	3148.1	5568.7	15597.5	31161.4	34019.4	28812.1	21663.7	16438.5
72.5°	1599.7	1633.1	2039.3	2739.7	4163.3	8562.8	26975.9	30070.4	27493.5	18303.6	12117.0
75°	1151.3	1178.1	1805.0	2485.4	3833.1	4248.0	18504.4	22301.8	20628.4	12875.5	6668.6
77.5°	285.6	283.3	629.2	2016.9	3429.2	3538.5	10617.7	14301.2	11835.8	5272.0	1713.5
80°	127.2	122.7	142.8	423.9	3190.5	3339.9	4669.6	7221.9	4540.3	854.5	524.3
82.5°	89.3	84.7	89.3	156.1	1066.5	3098.9	2822.2	3130.2	1662.2	292.3	223.1
85°	29.0	26.8	49.0	131.6	299.0	1787.1	2753.2	2338.1	1236.0	125.0	149.4
87.5°	4.5	4.5	17.8	71.3	87.0	595.7	1615.3	1619.8	555.6	73.6	66.9
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°	7478.6	7478.6	7478.6	7478.6	7478.6	7478.6	7478.6	7478.6	7478.6	7478.6	7478.6
2.5°	7364.7	7233.2	7048.0	6862.8	6695.4	6523.7	6385.3	6320.6	6291.5	6251.5	6164.4
5°	7195.2	6956.4	6550.4	6151.1	5778.5	5421.6	5115.8	4941.8	4754.4	4745.4	4654.0
7.5°	6923.0	6583.9	5943.6	5323.3	4754.4	4210.0	3741.5	3438.1	3230.6	3101.3	3012.0
10°	6619.6	6184.5	5336.8	4464.4	3690.2	2962.9	2360.4	1967.8	1729.0	1608.7	1539.5
12.5°	6378.7	5832.0	4738.8	3641.1	2670.7	1836.2	1276.1	990.6	863.4	814.3	792.0
15°	6171.2	5508.6	4178.8	2904.8	1782.7	1055.3	738.5	644.7	624.8	624.8	622.4
17.5°	5961.4	5196.2	3634.4	2182.0	1122.2	691.6	582.4	568.9	571.2	577.9	577.9
20°	5762.9	4899.4	3110.1	1555.1	736.3	553.3	528.9	524.3	531.0	540.0	537.7
22.5°	5602.3	4638.4	2619.3	1068.7	566.7	501.9	486.4	479.6	484.1	490.8	488.6
25°	5488.4	4415.2	2168.6	745.1	493.1	457.4	439.6	430.6	426.1	430.6	428.4
27.5°	5419.3	4227.9	1744.7	560.0	441.7	412.8	390.4	372.6	361.4	361.4	356.9
30°	5374.7	4051.7	1367.6	464.1	399.4	368.1	336.8	312.4	294.5	290.1	287.8
32.5°	5372.4	3899.9	1021.8	410.5	359.3	323.5	285.6	254.3	234.3	229.8	227.6
35°	5428.2	3777.2	751.9	370.4	323.5	281.2	238.7	205.3	187.4	187.4	185.2
37.5°	5573.2	3705.8	568.9	339.1	294.5	245.4	200.8	169.6	153.9	158.4	158.4
40°	5843.1	3692.4	464.1	314.5	270.0	214.1	162.9	138.3	131.6	138.3	138.3
42.5°	6255.9	3763.8	412.8	296.7	247.7	182.9	136.1	118.2	116.1	122.7	122.7
45°	6793.6	3904.4	383.7	281.2	223.1	151.8	113.7	102.6	100.4	109.4	109.4
47.5°	7445.0	4094.1	356.9	263.4	198.6	125.0	95.9	87.0	87.0	95.9	98.2
50°	8217.1	4350.6	330.2	245.4	178.5	104.9	80.3	73.6	75.8	84.7	87.0
52.5°	9105.0	4665.2	305.7	229.8	156.1	84.7	66.9	62.5	64.7	73.6	75.8
55°	9870.3	4939.6	276.7	214.1	127.2	69.2	55.7	53.5	55.7	66.9	66.9
57.5°	10537.4	5202.8	249.8	189.7	100.4	55.7	44.6	44.6	49.0	60.2	62.5
60°	11423.0	5617.9	227.6	160.6	75.8	42.4	35.7	37.9	44.6	53.5	55.7
62.5°	12991.6	6322.9	198.6	133.9	55.7	33.5	29.0	31.2	40.2	51.4	53.5
65°	14954.9	6990.0	165.1	111.6	42.4	24.6	22.3	29.0	40.2	51.4	53.5
67.5°	14754.1	6079.6	129.4	89.3	31.2	20.1	17.8	26.8	37.9	51.4	53.5
70°	11965.2	4261.3	95.9	60.2	24.6	17.8	17.8	26.8	37.9	49.0	51.4
72.5°	8299.6	2371.6	73.6	40.2	22.3	17.8	15.7	24.6	35.7	49.0	51.4
75°	3948.9	727.3	58.0	29.0	20.1	15.7	13.4	24.6	35.7	49.0	51.4
77.5°	758.6	185.2	46.9	24.6	17.8	15.7	13.4	22.3	35.7	46.9	49.0
80°	256.5	82.6	37.9	22.3	17.8	15.7	13.4	22.3	33.5	44.6	46.9
82.5°	140.5	46.9	33.5	20.1	17.8	13.4	11.2	20.1	31.2	44.6	46.9
85°	109.4	33.5	26.8	20.1	17.8	13.4	11.2	20.1	31.2	42.4	44.6
87.5°	55.7	24.6	22.3	20.1	17.8	13.4	11.2	17.8	29.0	40.2	44.6
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)