

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: P965560

Luminaire Tested: **NAV-SB4A-727-U-T2R-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965560
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-4)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4A-727-U-T2R-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14472 lumens
Efficiency: N/A
Efficacy: 126.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G2

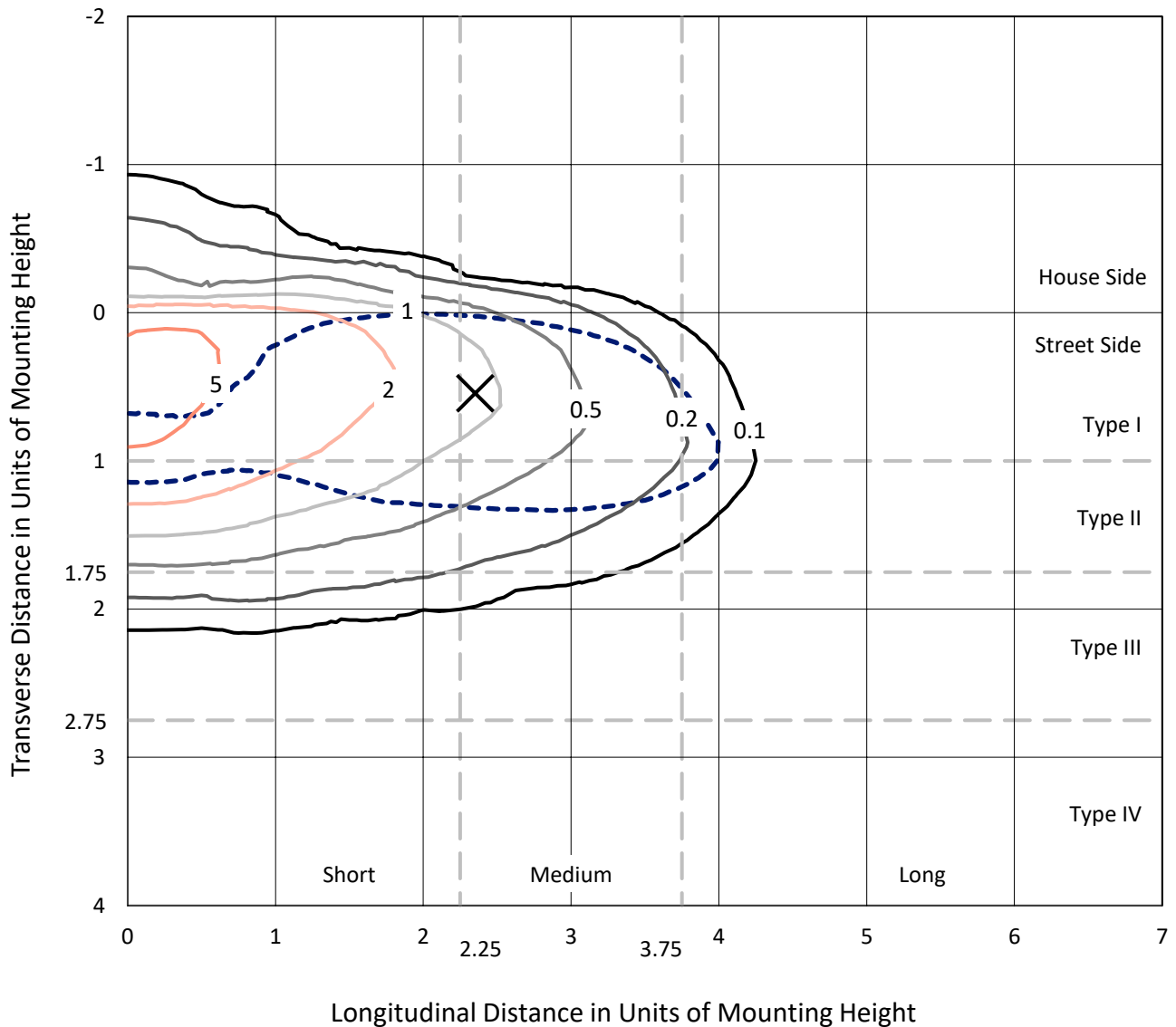
Input Watts (W): 114
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

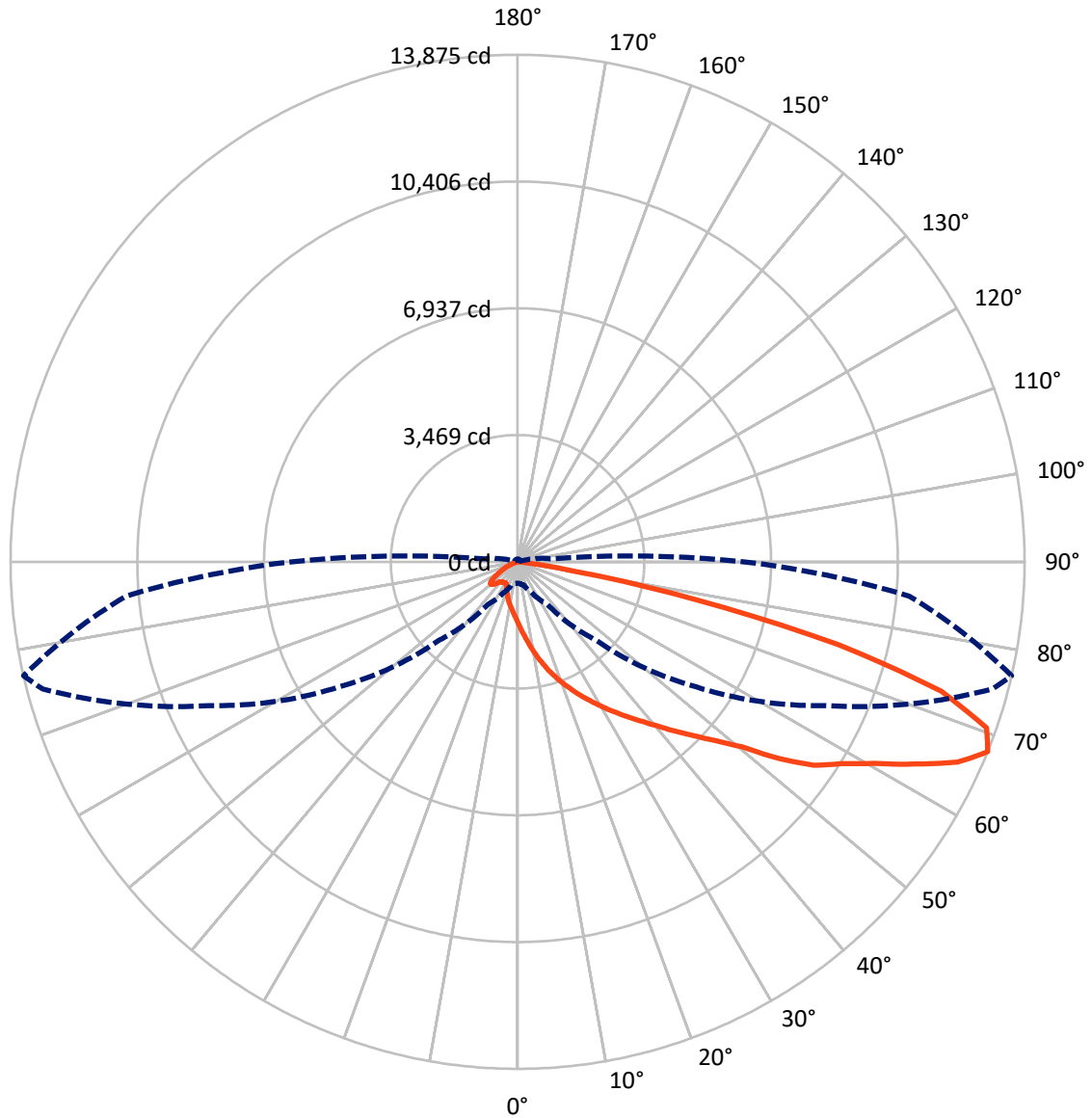
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.2 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 77-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1064.7	0.0	1064.7
	% Fixture	7.4	0.0	7.4
Street Side	Lumens	13407.3	0.0	13407.3
	% Fixture	92.6	0.0	92.6
Total	Lumens	14472.0	0.0	14472.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	170.3	1.2
10°-20°	596.5	4.1
20°-30°	1151.0	8.0
30°-40°	1998.3	13.8
40°-50°	2901.4	20.0
50°-60°	3331.9	23.0
60°-70°	2892.7	20.0
70°-80°	1362.5	9.4
80°-90°	67.4	0.5
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°	14472.0	100.0
0°-180°	14472.0	100.0

Coefficient of Utilization

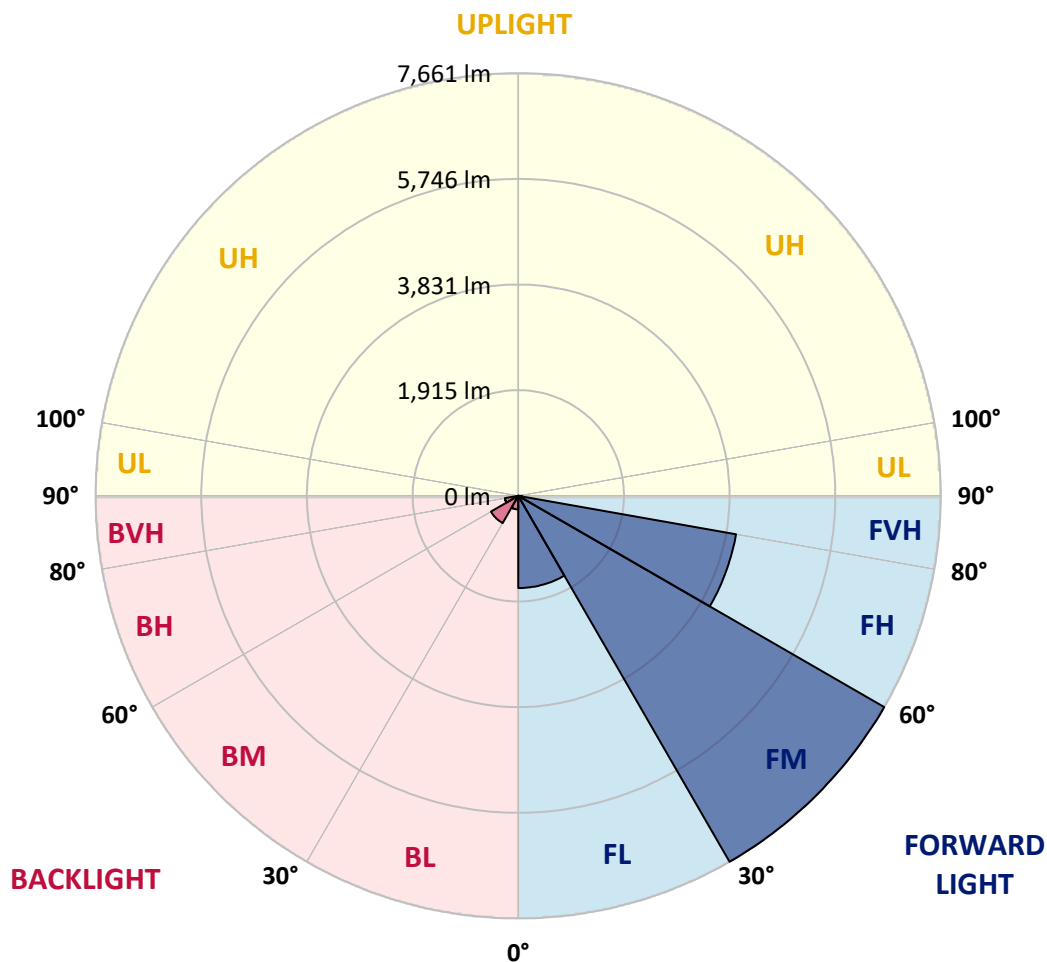


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1671.4	11.5			
FM (30°-60°)	7661.1	52.9			
FH (60°-80°)	4008.7	27.7			G2/5000
FVH (80°-90°)	66.1	0.5			G1/100
BL (0°-30°)	246.5	1.7	B1/500		
BM (30°-60°)	570.5	3.9	B1/1000		
BH (60°-80°)	246.5	1.7	B1/500		G1/500
BVH (80°-90°)	1.2	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2
 Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	1668.8	1668.8	1668.8	1668.8	1668.8	1668.8	1668.8	1668.8	1668.8	1668.8	1668.8
2.5°	2310.5	2324.9	2304.2	2264.6	2205.3	2166.6	2072.3	1983.4	1884.5	1853.1	1754.2
5°	2816.4	2829.0	2805.6	2762.5	2683.4	2607.9	2483.9	2297.9	2104.7	2042.7	1867.4
7.5°	3191.1	3198.4	3189.4	3149.8	3074.4	2989.0	2850.6	2630.5	2343.8	2275.4	2006.7
10°	3460.8	3484.2	3481.4	3466.1	3415.8	3346.6	3199.2	2948.5	2611.5	2523.4	2164.0
12.5°	3639.6	3665.7	3681.0	3715.1	3712.4	3668.4	3538.9	3273.8	2878.4	2775.1	2341.0
15°	3691.7	3719.6	3778.0	3857.1	3927.2	3949.6	3858.9	3592.9	3172.3	3040.3	2522.5
17.5°	3662.1	3705.2	3775.3	3900.2	4053.9	4155.5	4145.6	3901.2	3439.2	3288.2	2700.5
20°	3727.7	3769.0	3823.9	3929.0	4107.8	4292.1	4365.8	4195.9	3704.3	3546.2	2887.4
22.5°	4090.8	4083.6	4088.9	4106.0	4213.0	4395.4	4547.3	4463.7	3966.7	3805.0	3085.1
25°	4665.9	4633.5	4578.8	4486.1	4459.2	4547.3	4705.5	4701.0	4243.5	4070.1	3287.4
27.5°	5325.5	5320.2	5191.6	4968.8	4842.9	4808.8	4884.2	4931.9	4517.6	4332.5	3490.4
30°	5957.3	5971.6	5798.2	5550.2	5319.2	5185.4	5117.0	5151.1	4796.2	4615.6	3699.8
32.5°	6507.3	6522.6	6333.8	6043.6	5757.7	5596.0	5452.3	5367.7	5100.0	4903.2	3929.8
35°	6971.8	6987.1	6770.5	6449.7	6145.1	5998.6	5835.9	5605.0	5405.5	5222.2	4186.0
37.5°	7387.1	7382.6	7092.3	6768.8	6469.5	6353.6	6268.2	5897.0	5720.0	5543.0	4470.0
40°	7632.5	7651.3	7403.3	7046.5	6756.2	6671.7	6666.3	6259.3	6083.1	5911.5	4780.9
42.5°	7704.3	7737.5	7557.8	7264.9	7001.6	6909.8	7051.0	6651.0	6505.5	6338.3	5132.3
45°	7574.9	7607.2	7525.4	7322.4	7168.6	7109.4	7381.6	7057.2	6956.6	6791.2	5528.6
47.5°	7197.4	7237.9	7257.6	7214.6	7212.7	7273.0	7678.3	7485.1	7492.2	7323.3	5987.8
50°	6466.8	6535.1	6716.6	6869.4	7105.8	7402.3	7966.7	7948.8	8096.2	7950.5	6586.3
52.5°	5138.6	5235.7	5861.2	6279.0	6810.1	7378.1	8283.9	8692.8	9155.6	8942.7	7430.2
55°	4129.4	4129.4	4638.0	5419.9	6233.2	7218.2	8422.3	9176.3	9877.3	9827.0	8024.2
57.5°	3366.4	3406.9	3731.3	4422.4	5398.3	6837.1	8507.7	9480.1	10458.7	10421.9	8604.8
60°	2077.8	2164.9	2777.7	3459.9	4448.4	6158.6	8453.8	9787.4	11164.2	11193.8	9303.9
62.5°	1170.0	1202.4	1475.6	2489.3	3459.0	5246.5	8041.3	9959.1	12066.4	12192.3	10024.7
65°	807.9	824.1	929.3	1549.3	2397.7	4177.0	7235.2	9852.1	12970.6	13224.9	10635.8
67.5°	586.8	594.9	660.5	946.3	1422.6	3028.6	5971.6	9312.9	13449.5	13874.6	10752.6
70°	451.1	456.5	504.2	621.9	840.3	1869.2	4337.0	8240.8	13102.6	13610.4	10154.1
72.5°	366.6	372.1	408.9	460.1	557.2	1105.4	2628.6	6692.4	11571.3	12119.5	8644.3
75°	309.1	316.3	349.6	382.8	436.8	709.9	1233.0	4660.5	8701.8	9061.3	6011.2
77.5°	171.7	158.2	284.0	317.2	368.5	449.4	577.0	2742.7	4873.5	4973.2	2667.3
80°	106.9	110.5	225.6	255.2	283.1	226.4	264.2	1056.0	1689.5	1605.0	516.7
82.5°	6.3	14.3	173.4	184.2	194.1	97.1	99.7	358.5	407.1	373.8	91.6
85°	0.0	0.0	79.1	63.8	67.4	27.9	28.8	83.5	54.8	59.3	17.9
87.5°	0.0	0.0	0.0	1.8	0.0	2.7	5.4	7.2	2.7	3.6	6.3
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°	1668.8	1668.8	1668.8	1668.8	1668.8	1668.8	1668.8	1668.8	1668.8	1668.8	1668.8
2.5°	1691.2	1628.4	1500.8	1375.9	1274.3	1180.0	1112.5	1048.8	1016.4	1014.6	1012.8
5°	1742.5	1610.4	1355.2	1129.7	948.1	802.5	708.2	640.7	606.6	594.9	593.2
7.5°	1814.5	1615.8	1227.5	914.0	700.1	575.1	521.2	499.7	492.5	484.4	482.6
10°	1905.2	1628.4	1113.5	736.1	551.8	488.9	467.3	458.3	452.9	447.5	445.8
12.5°	2006.7	1640.1	1000.2	611.1	485.2	452.9	437.7	426.9	419.6	413.4	411.6
15°	2105.6	1647.3	882.5	523.9	451.1	425.1	408.9	397.2	387.3	380.2	379.2
17.5°	2203.5	1657.1	771.9	471.8	423.3	397.2	381.0	366.6	358.5	350.4	349.6
20°	2312.3	1655.4	667.7	434.9	395.4	369.3	352.3	338.8	330.7	321.7	320.8
22.5°	2413.0	1646.4	576.0	403.5	366.6	341.5	322.7	309.1	301.0	293.9	292.9
25°	2528.9	1639.2	499.7	374.7	339.7	314.6	293.9	281.3	272.3	266.0	265.1
27.5°	2640.3	1628.4	443.9	348.7	313.6	289.4	269.6	255.2	247.1	242.6	242.6
30°	2750.0	1625.6	423.3	323.5	290.3	266.0	246.2	232.8	226.4	224.7	223.8
32.5°	2882.0	1632.9	432.2	314.6	268.7	244.5	225.6	215.7	209.4	209.4	209.4
35°	3023.1	1631.1	445.8	322.7	254.3	222.8	208.5	202.2	195.9	195.9	195.9
37.5°	3200.2	1633.7	456.5	336.1	249.0	204.9	196.8	188.7	185.1	185.1	185.1
40°	3464.4	1722.7	451.1	347.8	247.1	192.3	176.1	173.4	170.8	170.8	170.8
42.5°	3787.9	1915.9	458.3	348.7	246.2	183.4	161.7	167.2	160.8	160.0	159.1
45°	4141.9	2127.2	504.2	329.8	245.4	178.9	154.6	160.8	151.0	151.0	151.0
47.5°	4493.4	2336.6	550.8	302.9	242.6	177.9	148.3	144.7	142.0	142.9	142.9
50°	4977.7	2507.3	568.9	266.0	236.4	176.1	136.6	137.5	135.7	137.5	137.5
52.5°	5505.3	2543.2	547.2	224.7	218.4	170.8	128.5	132.1	131.2	133.0	133.0
55°	5834.2	2504.6	452.0	187.0	190.5	149.1	120.4	127.6	127.6	127.6	127.6
57.5°	6173.9	2340.2	320.8	151.9	158.2	122.2	113.3	123.1	122.2	121.4	121.4
60°	6418.3	2074.1	211.2	124.9	125.8	100.7	105.2	115.9	115.0	110.5	110.5
62.5°	6600.7	1780.2	135.7	106.1	96.1	90.8	96.1	105.2	101.6	91.6	89.9
65°	6580.1	1373.2	104.2	90.8	79.1	79.1	83.5	91.6	80.9	64.7	62.9
67.5°	6196.3	929.3	86.3	76.4	66.5	65.6	69.2	76.4	69.2	54.8	53.0
70°	5510.6	607.5	69.2	59.3	53.0	48.5	55.8	65.6	58.4	44.1	42.2
72.5°	4472.7	370.2	52.2	43.2	38.6	31.5	44.1	53.9	46.7	32.4	30.5
75°	2893.7	188.7	36.0	27.9	20.7	18.9	32.4	40.5	32.4	19.8	17.1
77.5°	1107.2	79.1	19.8	12.6	10.8	9.0	17.9	24.3	13.5	4.5	3.6
80°	213.0	33.2	9.8	6.3	5.4	3.6	2.7	1.8	0.0	0.0	0.0
82.5°	36.8	10.8	3.6	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	12.6	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)