

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: P884138

Luminaire Tested: **NAV-SB4D-760-U-T3-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P884138  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB4D-760-U-T3-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 70 CRI, 5700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

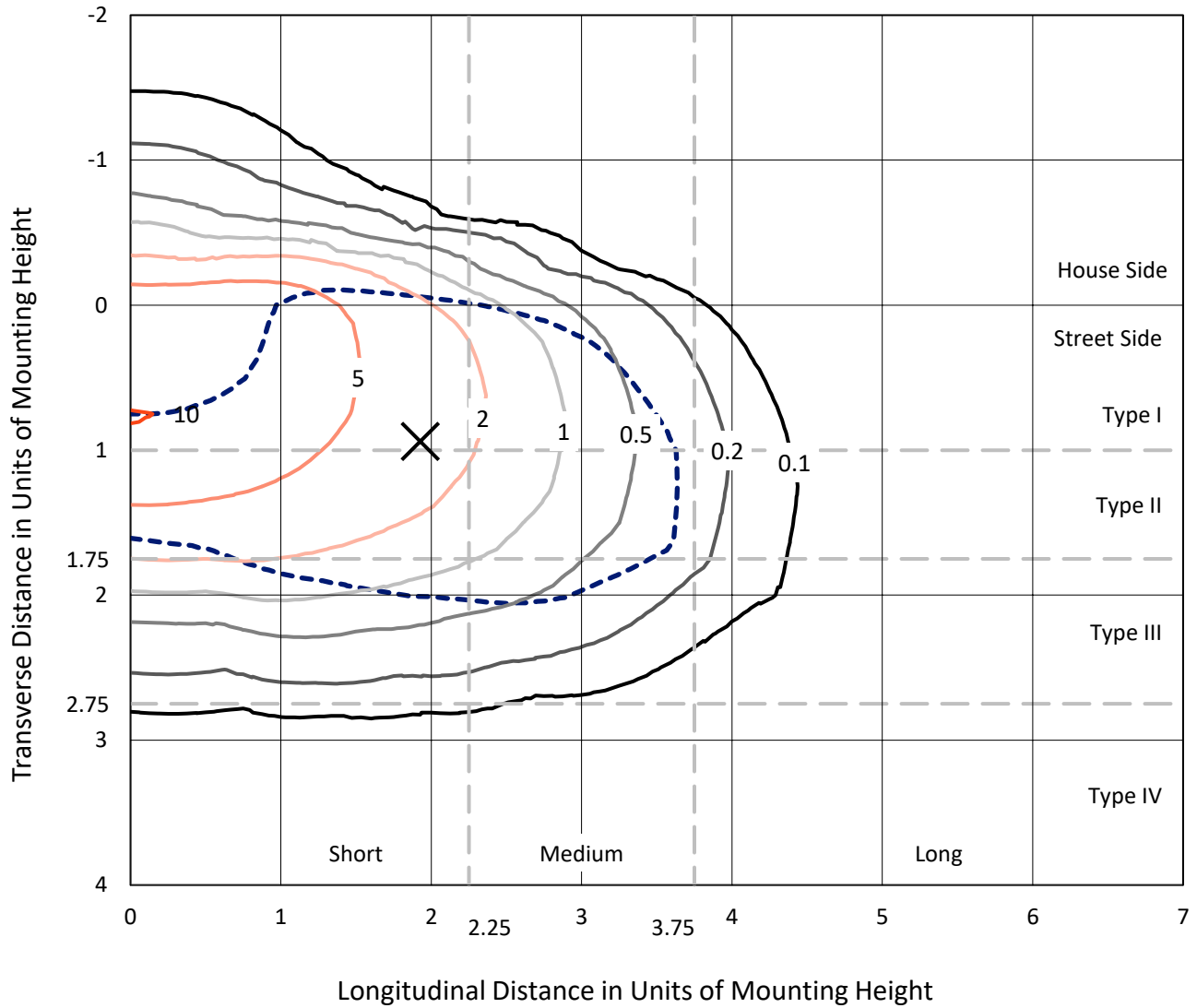
Lumens per Lamp: N/A  
Luminaire Lumens: 34870 lumens  
Efficiency: N/A  
Efficacy: 118.8 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B3 - U0 - G4  
  
Input Watts (W): 293.6  
Input Voltage (V): 120.0  
Input Current (Ain): 2.469  
Voltage Rise (V): NR  
Power Factor: 0.999  
Total Harmonic Distortion (THDi): 3.108  
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

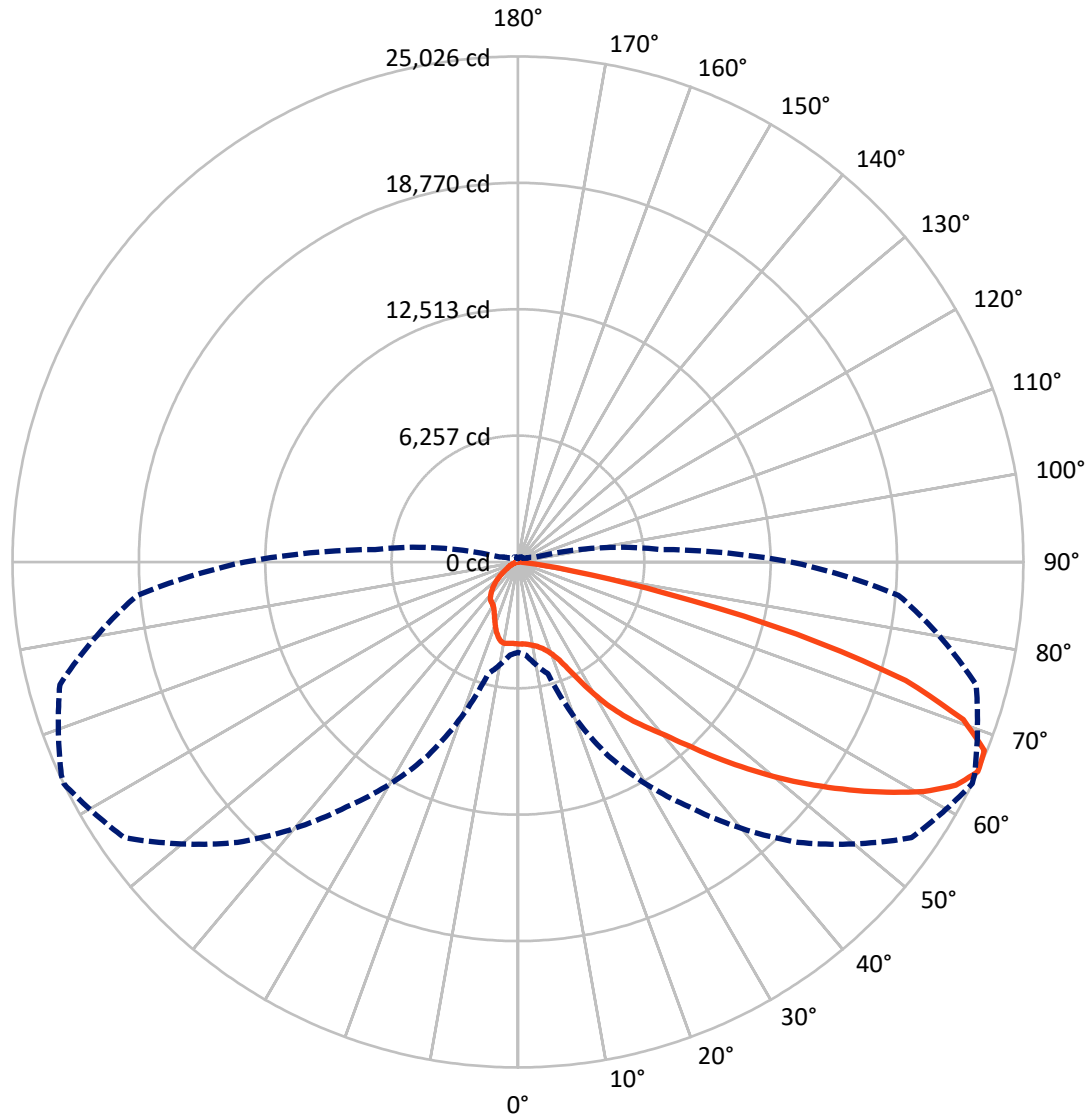
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.2 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 64-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4663.2	0.0	4663.2
	% Fixture	13.4	0.0	13.4
<b>Street Side</b>	Lumens	30206.8	0.0	30206.8
	% Fixture	86.6	0.0	86.6
<b>Total</b>	Lumens	34870.0	0.0	34870.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	374.2	1.1
10°-20°	1014.9	2.9
20°-30°	1923.1	5.5
30°-40°	3891.5	11.2
40°-50°	6629.2	19.0
50°-60°	9015.2	25.9
60°-70°	8465.8	24.3
70°-80°	3391.8	9.7
80°-90°	164.3	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°	34870.0	100.0
0°-180°	34870.0	100.0

**Coefficient of Utilization**



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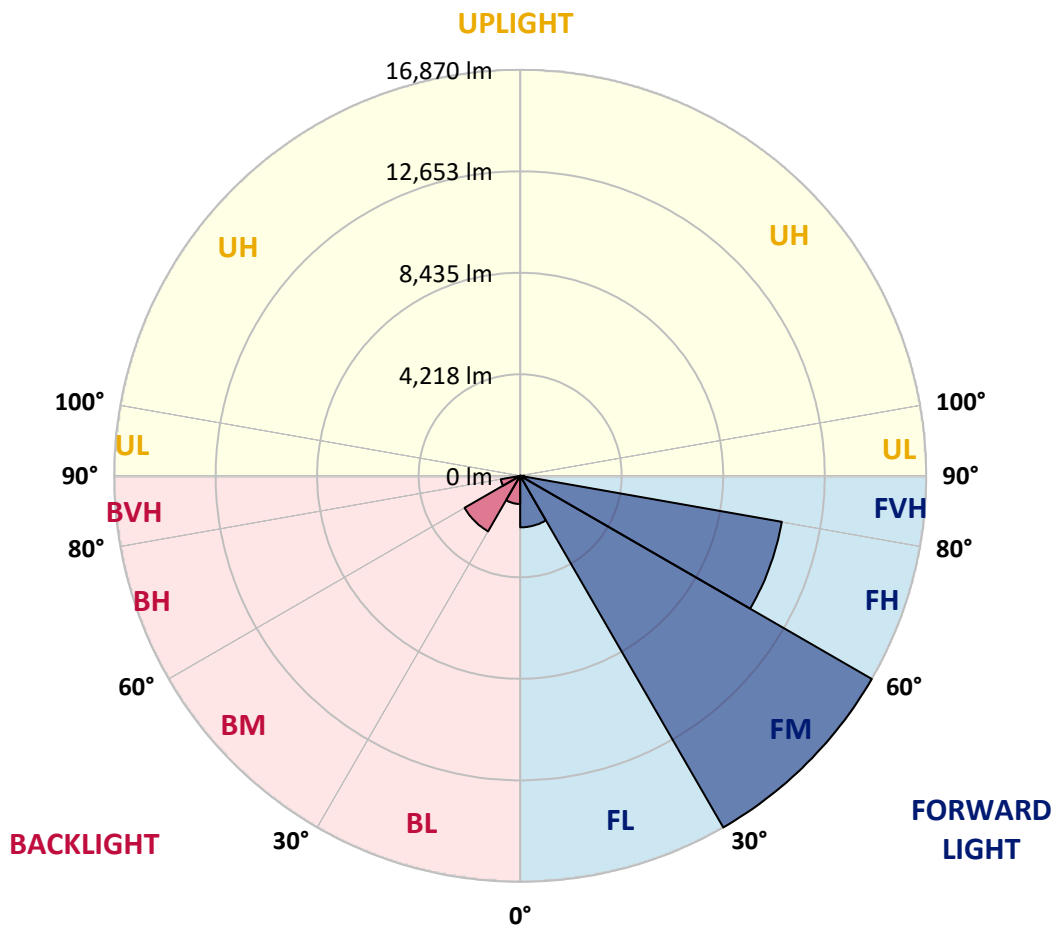
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2141.4	6.1			
FM (30°-60°)	16870.1	48.4			
FH (60°-80°)	11039.0	31.7			G4/12000
FVH (80°-90°)	156.3	0.4			G2/225
BL (0°-30°)	1170.8	3.4	B3/2500		
BM (30°-60°)	2665.9	7.6	B3/5000		
BH (60°-80°)	818.5	2.3	B2/1000		G2/1000
BVH (80°-90°)	8.0	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G4**

Type III Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	4055.7	4055.7	4055.7	4055.7	4055.7	4055.7	4055.7	4055.7	4055.7	4055.7	4055.7
2.5°	4041.7	4069.8	4062.8	4055.7	4053.4	4058.1	4060.4	4058.1	4058.1	4058.1	4060.4
5°	3964.6	3988.0	3988.0	4004.3	4027.7	4055.7	4076.8	4081.5	4086.1	4093.1	4090.8
7.5°	3817.3	3836.0	3850.0	3903.8	3962.2	4037.0	4100.2	4132.9	4137.6	4163.3	4172.6
10°	3716.8	3740.2	3763.5	3819.6	3903.8	4016.0	4123.5	4203.0	4214.7	4275.5	4303.5
12.5°	3712.1	3735.5	3765.9	3826.7	3924.8	4044.1	4175.0	4289.5	4310.5	4399.4	4457.8
15°	3761.2	3789.3	3817.3	3892.1	3997.3	4142.2	4282.5	4425.1	4446.1	4572.4	4635.5
17.5°	3861.7	3899.1	3920.2	3995.0	4107.2	4268.5	4453.1	4616.8	4635.5	4782.7	4862.2
20°	4060.4	4104.8	4111.8	4172.6	4282.5	4455.5	4675.2	4878.6	4902.0	5070.3	5159.1
22.5°	4471.8	4535.0	4478.8	4509.2	4607.4	4780.4	5018.8	5276.0	5308.7	5500.4	5579.9
25°	5196.5	5285.3	5140.4	5089.0	5131.0	5311.0	5610.2	5935.2	5972.6	6126.9	6166.6
27.5°	6620.1	6505.6	6285.8	6070.8	5944.5	6047.4	6384.0	6786.1	6832.8	6982.4	6935.7
30°	8184.0	8083.4	7786.6	7309.7	7010.5	6994.1	7305.0	7753.8	7807.6	7950.2	7807.6
32.5°	9750.1	9654.3	9331.7	8745.0	8226.0	7968.9	8184.0	8681.9	8709.9	8801.1	8590.7
35°	11290.6	11192.4	10869.9	10269.1	9630.9	9046.5	9004.5	9565.5	9574.8	9670.7	9357.4
37.5°	12840.5	12758.6	12415.0	11825.9	11197.1	10390.7	10000.3	10402.3	10414.0	10507.5	10182.6
40°	13946.1	13981.2	13745.1	13289.3	12749.3	11868.0	11117.6	11293.0	11222.8	11379.5	11185.4
42.5°	14895.2	14965.3	14759.6	14530.5	14217.3	13441.2	12501.5	12471.1	12358.9	12443.1	12242.0
45°	15715.7	15774.2	15589.5	15535.7	15528.7	14984.0	14013.9	13831.6	13675.0	13658.6	13417.8
47.5°	16017.3	16129.5	16208.9	16388.9	16739.6	16510.5	15577.8	15294.9	15119.6	14991.1	14610.0
50°	16131.8	16251.0	16522.2	17045.8	17875.7	17973.8	17134.6	16816.7	16601.7	16367.9	15806.9
52.5°	15977.5	16190.2	16554.9	17436.2	18640.1	19147.3	18628.4	18350.2	18104.7	17723.7	16891.5
55°	15068.2	15280.9	16026.6	17431.5	19021.1	19970.2	20040.3	19916.4	19640.5	19039.8	17768.1
57.5°	13151.4	13466.9	14647.4	16837.8	19014.1	20678.4	21424.1	21513.0	21204.4	20344.2	18457.7
60°	10495.8	10923.6	12363.6	15521.7	18427.3	21061.8	22637.4	23081.5	22754.2	21629.9	19016.4
62.5°	7323.7	7819.3	9182.1	13459.9	17085.5	20786.0	23523.3	24343.8	24096.0	22780.0	19231.5
65°	4467.2	4626.1	5724.8	10591.7	14804.0	19631.2	23796.8	25026.4	24944.6	23483.6	18913.6
67.5°	2975.8	3109.0	3424.6	7262.9	11491.7	17324.0	23142.3	24907.2	24930.5	23369.0	17749.4
70°	1792.9	1907.5	2113.2	4224.1	7447.6	13712.4	21115.6	23387.7	23523.3	21837.9	15542.7
72.5°	738.7	815.8	1002.8	1914.5	3857.0	8702.9	16814.4	20080.0	20395.6	18361.9	11928.8
75°	418.4	458.2	589.1	960.8	1673.7	4055.7	10184.9	14254.7	14719.9	12655.8	7176.4
77.5°	278.2	296.9	381.0	621.8	942.1	1383.9	4352.6	7426.6	8314.9	6912.3	3106.7
80°	187.0	203.4	261.8	416.1	612.5	593.8	1386.2	2751.4	3384.9	2375.0	757.4
82.5°	126.2	128.6	187.0	273.5	388.0	287.5	409.1	855.6	1075.3	687.3	287.5
85°	72.5	70.1	137.9	159.0	173.0	119.2	123.9	257.1	336.6	289.9	163.6
87.5°	9.4	14.0	53.8	42.1	23.4	25.7	25.7	44.4	65.5	70.1	35.1
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°	4055.7	4055.7	4055.7	4055.7	4055.7	4055.7	4055.7	4055.7	4055.7	4055.7	4055.7
2.5°	4060.4	4058.1	4051.1	4044.1	4027.7	4018.3	4023.0	4018.3	4016.0	4018.3	4027.7
5°	4090.8	4083.8	4065.1	4041.7	4009.0	3969.3	3943.5	3906.1	3871.1	3850.0	3854.7
7.5°	4172.6	4165.6	4139.9	4074.4	3969.3	3803.3	3651.3	3518.1	3417.6	3359.1	3361.5
10°	4303.5	4291.8	4252.1	4107.2	3831.3	3469.0	3167.5	2917.3	2753.7	2676.6	2669.5
12.5°	4457.8	4443.8	4373.7	4076.8	3569.5	3003.8	2587.7	2309.6	2157.6	2089.8	2082.8
15°	4640.1	4621.4	4483.5	3931.9	3188.5	2489.5	2108.5	1900.5	1802.3	1741.5	1743.9
17.5°	4866.9	4834.2	4565.3	3714.5	2774.7	2096.8	1814.0	1657.4	1570.9	1512.4	1507.8
20°	5161.4	5107.7	4630.8	3455.0	2393.7	1849.0	1615.3	1484.4	1418.9	1367.5	1358.1
22.5°	5572.8	5495.7	4710.3	3174.5	2124.9	1678.4	1468.0	1372.2	1318.4	1260.0	1250.6
25°	6082.4	5991.3	4808.5	2915.0	1940.2	1531.1	1360.5	1281.0	1217.9	1150.1	1143.1
27.5°	6795.4	6631.8	4925.3	2702.3	1781.3	1404.9	1262.3	1173.5	1101.0	1044.9	1033.2
30°	7590.2	7321.4	5028.2	2573.7	1636.3	1288.0	1133.7	1044.9	977.1	937.4	930.4
32.5°	8342.9	7978.2	5096.0	2517.6	1505.4	1154.8	993.5	897.6	846.2	834.5	841.5
35°	9053.5	8572.0	5089.0	2463.8	1388.5	1021.5	855.6	757.4	717.6	724.7	724.7
37.5°	9871.7	9205.5	5039.9	2379.7	1292.7	900.0	736.3	649.9	614.8	617.1	626.5
40°	10823.1	9937.2	5009.5	2220.7	1187.5	787.8	638.2	568.0	542.3	533.0	530.6
42.5°	11837.6	10645.4	5014.2	2040.7	1056.6	687.3	570.4	511.9	488.6	481.5	479.2
45°	12856.8	11321.0	5021.2	1853.7	918.7	610.1	521.3	472.2	458.2	448.8	448.8
47.5°	13815.2	11896.1	4890.3	1652.7	783.1	551.7	481.5	448.8	437.1	425.4	425.4
50°	14708.2	12279.4	4574.7	1418.9	675.6	504.9	451.2	427.8	416.1	404.4	404.4
52.5°	15402.5	12340.2	4053.4	1178.2	600.8	469.9	432.5	411.4	397.4	385.7	383.4
55°	15711.0	11959.2	3312.4	953.7	542.3	439.5	413.8	392.7	376.4	364.7	362.3
57.5°	15631.6	11157.4	2583.1	766.7	486.2	409.1	390.4	376.4	357.7	339.0	336.6
60°	15241.2	10084.4	1947.2	638.2	434.8	376.4	364.7	353.0	327.3	299.2	294.5
62.5°	14565.6	8735.6	1388.5	528.3	378.7	339.0	334.3	324.9	287.5	236.1	231.4
65°	13532.4	7097.0	935.0	439.5	324.9	296.9	299.2	282.9	233.8	175.3	170.6
67.5°	12022.3	5189.5	598.4	360.0	271.2	247.8	250.1	240.8	198.7	149.6	142.6
70°	10098.4	3436.3	390.4	273.5	217.4	191.7	205.7	208.0	168.3	121.6	116.9
72.5°	7403.2	2029.0	273.5	203.4	159.0	133.2	168.3	173.0	135.6	91.2	86.5
75°	4219.4	963.1	205.7	147.3	98.2	93.5	130.9	130.9	93.5	60.8	56.1
77.5°	1771.9	402.1	144.9	95.8	56.1	53.8	88.8	81.8	46.8	28.1	28.1
80°	511.9	180.0	77.1	46.8	23.4	21.0	35.1	25.7	11.7	4.7	4.7
82.5°	201.0	79.5	30.4	18.7	9.4	9.4	4.7	0.0	0.0	0.0	0.0
85°	119.2	32.7	14.0	7.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	30.4	7.0	4.7	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)