

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: P884828

Luminaire Tested: **NAV-SB5D-827-U-T3-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P884828  
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-SB5D-827-U-T3-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 80 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

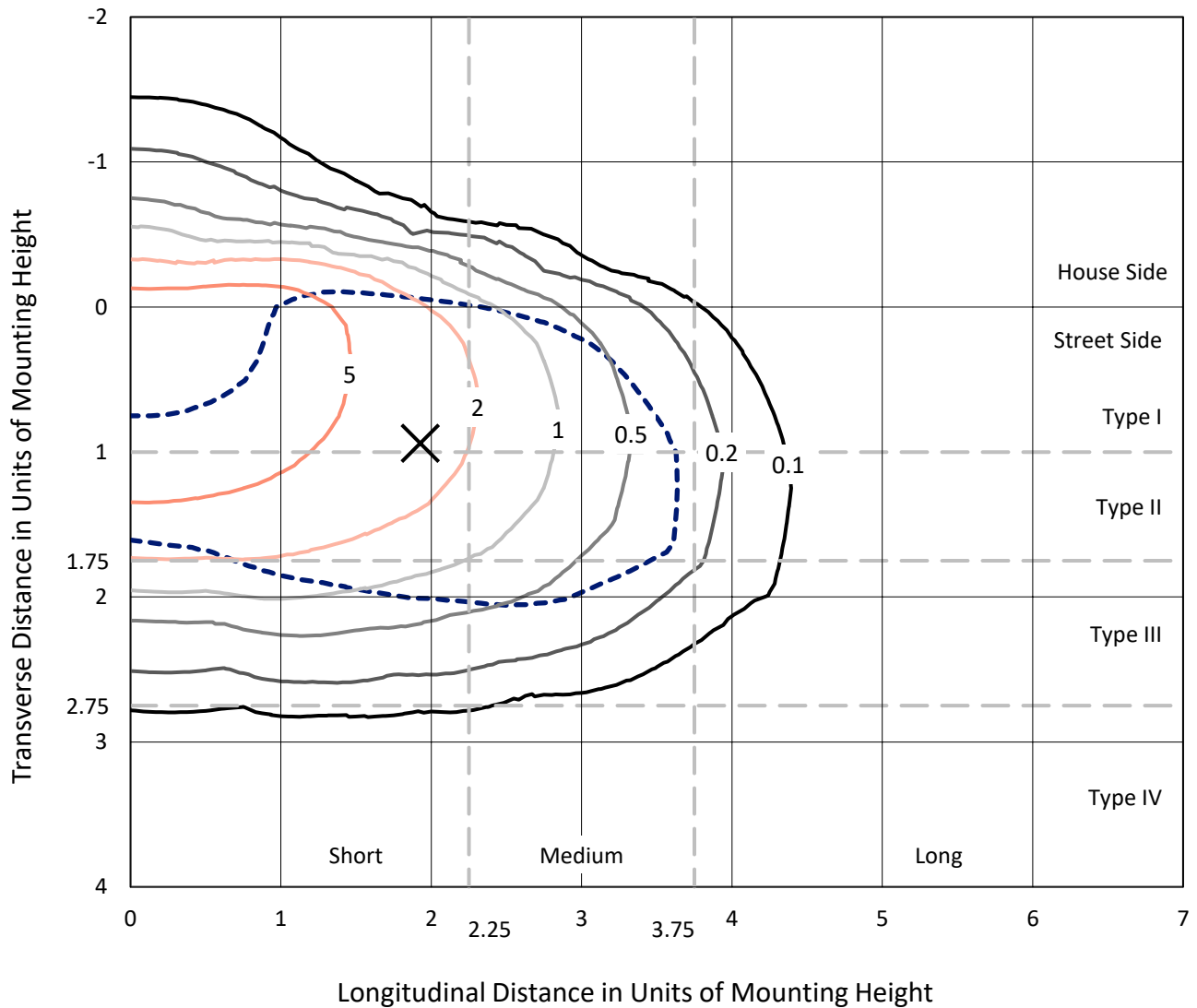
Lumens per Lamp: N/A  
Luminaire Lumens: 32904 lumens  
Efficiency: N/A  
Efficacy: 90.2 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B3 - U0 - G4  
  
Input Watts (W): 364.9  
Input Voltage (V): 120.0  
Input Current (Ain): 3.094  
Voltage Rise (V): NR  
Power Factor: 0.998  
Total Harmonic Distortion (THDi): 3.28  
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

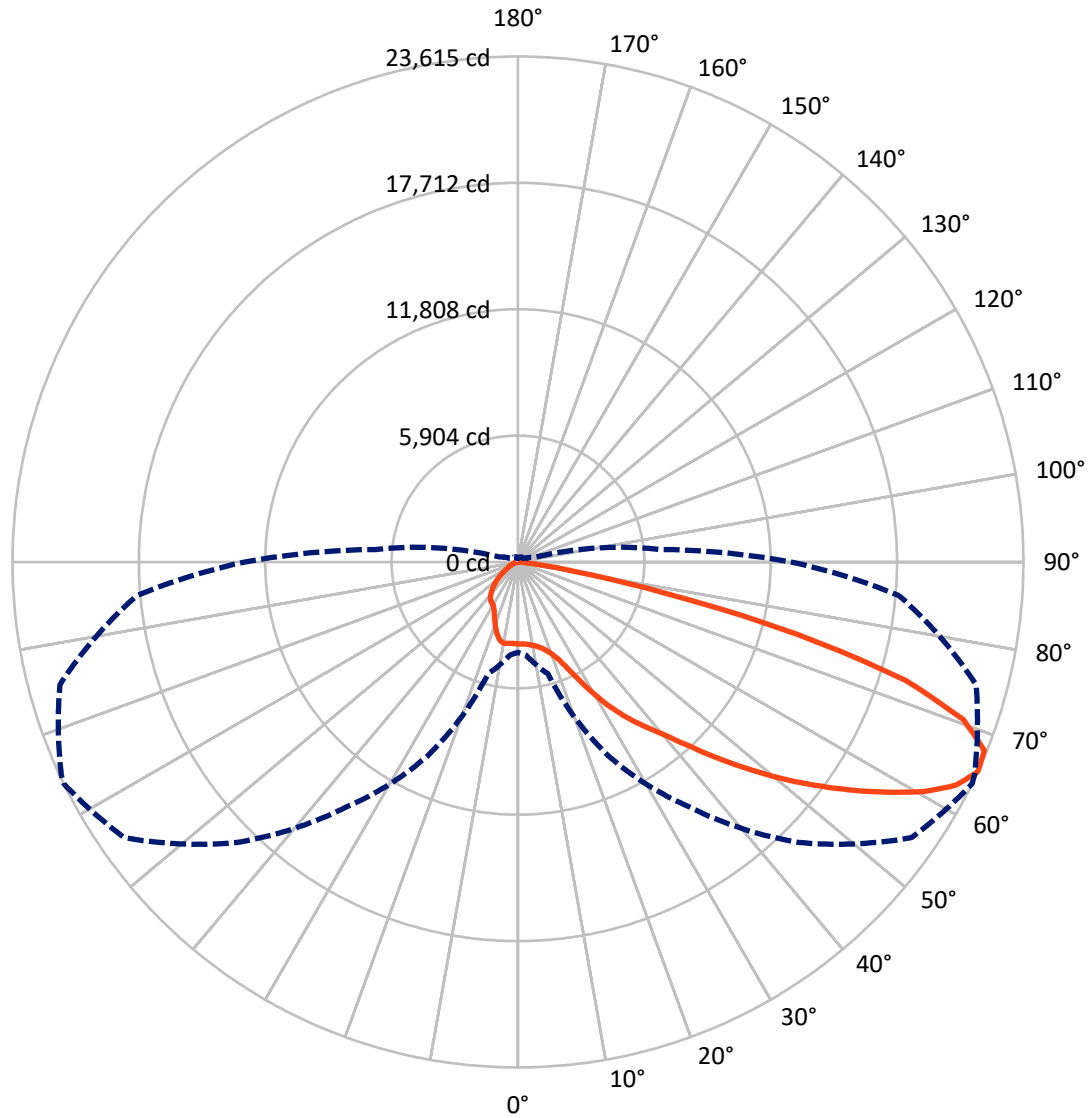
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.6 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	4400.3	0.0	4400.3
	% Fixture	13.4	0.0	13.4
<b>Street Side</b>	Lumens	28503.7	0.0	28503.7
	% Fixture	86.6	0.0	86.6
<b>Total</b>	Lumens	32904.0	0.0	32904.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	353.1	1.1
10°-20°	957.7	2.9
20°-30°	1814.7	5.5
30°-40°	3672.1	11.2
40°-50°	6255.5	19.0
50°-60°	8506.9	25.9
60°-70°	7988.4	24.3
70°-80°	3200.5	9.7
80°-90°	155.1	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°	32904.0	100.0
0°-180°	32904.0	100.0

**Coefficient of Utilization**



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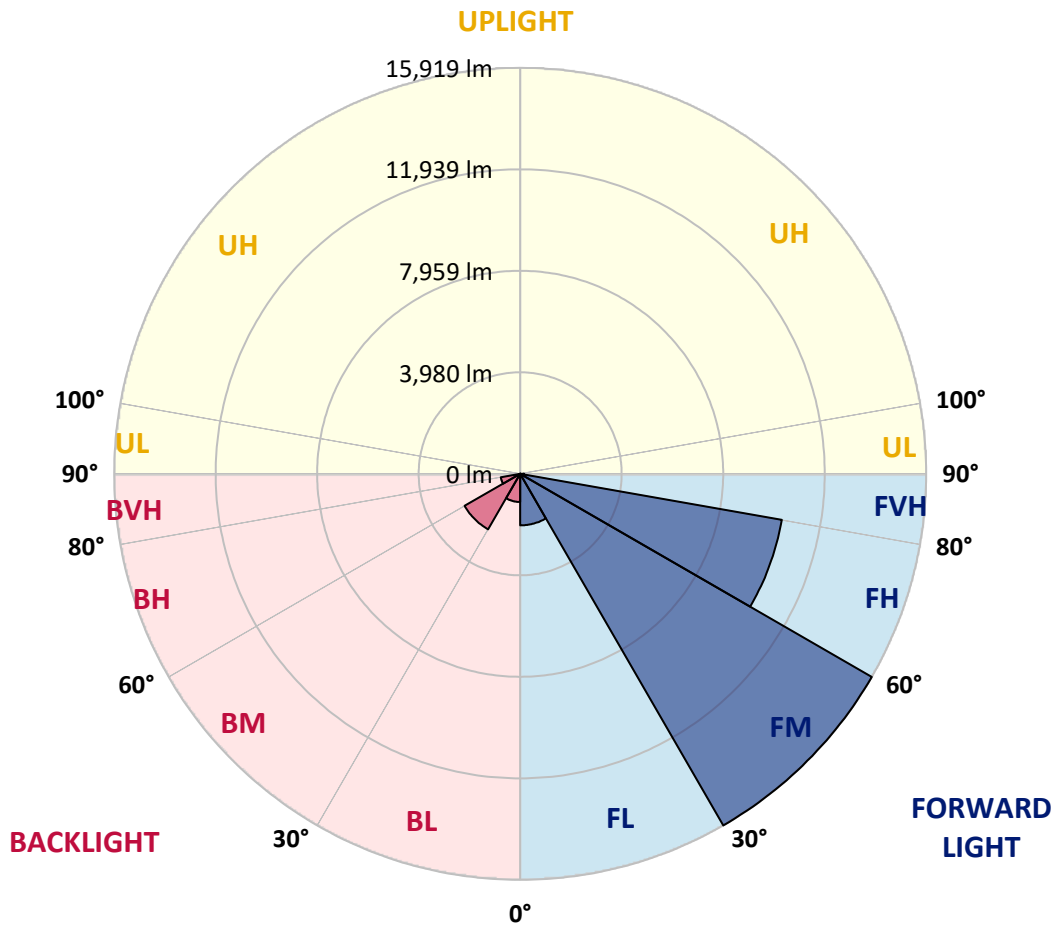
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2020.7	6.1			
FM (30°-60°)	15918.9	48.4			
FH (60°-80°)	10416.6	31.7			G4/12000
FVH (80°-90°)	147.5	0.4			G2/225
BL (0°-30°)	1104.8	3.4	B3/2500		
BM (30°-60°)	2515.6	7.6	B3/5000		
BH (60°-80°)	772.3	2.3	B2/1000		G2/1000
BVH (80°-90°)	7.6	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°	3827.1	3827.1	3827.1	3827.1	3827.1	3827.1	3827.1	3827.1	3827.1	3827.1	3827.1
2.5°	3813.8	3840.3	3833.7	3827.1	3824.9	3829.3	3831.5	3829.3	3829.3	3829.3	3831.5
5°	3741.1	3763.1	3763.1	3778.5	3800.6	3827.1	3846.9	3851.3	3855.8	3862.4	3860.2
7.5°	3602.1	3619.7	3633.0	3683.7	3738.8	3809.4	3869.0	3899.9	3904.3	3928.5	3937.4
10°	3507.2	3529.3	3551.4	3604.3	3683.7	3789.6	3891.0	3966.0	3977.1	4034.4	4060.9
12.5°	3502.8	3524.9	3553.6	3610.9	3703.6	3816.0	3939.6	4047.7	4067.5	4151.3	4206.5
15°	3549.1	3575.6	3602.1	3672.7	3771.9	3908.7	4041.0	4175.6	4195.4	4314.6	4374.1
17.5°	3644.0	3679.3	3699.1	3769.7	3875.6	4027.8	4202.1	4356.5	4374.1	4513.1	4588.1
20°	3831.5	3873.4	3880.0	3937.4	4041.0	4204.3	4411.6	4603.5	4625.6	4784.4	4868.2
22.5°	4219.7	4279.3	4226.3	4255.0	4347.6	4510.9	4735.9	4978.5	5009.4	5190.3	5265.3
25°	4903.5	4987.3	4850.6	4802.0	4841.7	5011.6	5293.9	5600.5	5635.8	5781.4	5818.9
27.5°	6246.8	6138.8	5931.4	5728.5	5609.4	5706.4	6024.1	6403.5	6447.6	6588.7	6544.6
30°	7722.5	7627.7	7347.5	6897.6	6615.2	6599.8	6893.1	7316.7	7367.4	7502.0	7367.4
32.5°	9200.4	9110.0	8805.6	8251.9	7762.2	7519.6	7722.5	8192.4	8218.8	8304.9	8106.3
35°	10654.1	10561.4	10257.0	9690.1	9087.9	8536.5	8496.8	9026.2	9035.0	9125.4	8829.8
37.5°	12116.5	12039.3	11715.0	11159.2	10565.8	9804.8	9436.4	9815.8	9826.9	9915.1	9608.5
40°	13159.9	13192.9	12970.2	12540.0	12030.5	11198.9	10490.8	10656.3	10590.1	10737.9	10554.8
42.5°	14055.4	14121.6	13927.5	13711.3	13415.7	12683.4	11796.7	11768.0	11662.1	11741.5	11551.8
45°	14829.6	14884.8	14710.5	14659.8	14653.2	14139.2	13223.8	13051.8	12904.0	12888.5	12661.3
47.5°	15114.2	15220.1	15295.1	15464.9	15795.8	15579.6	14699.5	14432.6	14267.2	14145.8	13786.3
50°	15222.3	15334.8	15590.7	16084.8	16867.8	16960.5	16168.6	15868.6	15665.6	15445.1	14915.7
52.5°	15076.7	15277.4	15621.5	16453.1	17589.1	18067.8	17578.1	17315.6	17084.0	16724.4	15939.2
55°	14218.6	14419.4	15123.0	16448.7	17948.7	18844.2	18910.4	18793.5	18533.2	17966.3	16766.3
57.5°	12409.9	12707.7	13821.6	15888.4	17942.0	19512.6	20216.2	20300.1	20008.9	19197.1	17417.1
60°	9904.1	10307.7	11666.5	14646.6	17388.4	19874.3	21361.0	21780.1	21471.3	20410.3	17944.2
62.5°	6910.8	7378.4	8664.4	12701.0	16122.3	19614.0	22197.0	22971.3	22737.5	21495.6	18147.2
65°	4215.3	4365.3	5402.0	9994.5	13969.4	18524.4	22455.1	23615.4	23538.2	22159.5	17847.2
67.5°	2808.0	2933.7	3231.5	6853.4	10843.8	16347.2	21837.5	23502.9	23524.9	22051.5	16748.7
70°	1691.9	1799.9	1994.1	3985.9	7027.7	12939.3	19925.1	22069.1	22197.0	20606.7	14666.4
72.5°	697.0	769.8	946.3	1806.6	3639.6	8212.2	15866.4	18947.9	19245.7	17326.6	11256.2
75°	394.8	432.3	555.9	906.6	1579.4	3827.1	9610.7	13451.0	13890.0	11942.2	6771.8
77.5°	262.5	280.1	359.5	586.7	888.9	1305.8	4107.2	7007.9	7846.1	6522.6	2931.5
80°	176.5	191.9	247.1	392.6	577.9	560.3	1308.0	2596.2	3194.0	2241.1	714.7
82.5°	119.1	121.3	176.5	258.1	366.2	271.3	386.0	807.3	1014.7	648.5	271.3
85°	68.4	66.2	130.1	150.0	163.2	112.5	116.9	242.6	317.6	273.5	154.4
87.5°	8.8	13.2	50.7	39.7	22.1	24.3	24.3	41.9	61.8	66.2	33.1
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°	3827.1	3827.1	3827.1	3827.1	3827.1	3827.1	3827.1	3827.1	3827.1	3827.1	3827.1
2.5°	3831.5	3829.3	3822.7	3816.0	3800.6	3791.8	3796.2	3791.8	3789.6	3791.8	3800.6
5°	3860.2	3853.5	3835.9	3813.8	3783.0	3745.5	3721.2	3685.9	3652.8	3633.0	3637.4
7.5°	3937.4	3930.7	3906.5	3844.7	3745.5	3588.8	3445.5	3319.7	3224.9	3169.7	3172.0
10°	4060.9	4049.9	4012.4	3875.6	3615.3	3273.4	2988.9	2752.8	2598.4	2525.7	2519.0
12.5°	4206.5	4193.2	4127.1	3846.9	3368.3	2834.5	2441.8	2179.3	2036.0	1972.0	1965.4
15°	4378.5	4360.9	4230.7	3710.2	3008.7	2349.2	1989.6	1793.3	1700.7	1643.3	1645.5
17.5°	4592.5	4561.6	4307.9	3505.0	2618.3	1978.6	1711.7	1563.9	1482.3	1427.2	1422.7
20°	4870.4	4819.7	4369.7	3260.2	2258.7	1744.8	1524.2	1400.7	1338.9	1290.4	1281.6
22.5°	5258.6	5185.9	4444.7	2995.5	2005.1	1583.8	1385.2	1294.8	1244.1	1188.9	1180.1
25°	5739.5	5653.5	4537.3	2750.6	1830.8	1444.8	1283.8	1208.8	1149.2	1085.3	1078.6
27.5°	6412.3	6257.9	4647.6	2549.9	1680.8	1325.7	1191.1	1107.3	1038.9	986.0	975.0
30°	7162.3	6908.6	4744.7	2428.6	1544.1	1215.4	1069.8	986.0	922.0	884.5	877.9
32.5°	7872.5	7528.4	4808.7	2375.7	1420.5	1089.7	937.5	847.0	798.5	787.5	794.1
35°	8543.1	8088.7	4802.0	2324.9	1310.2	963.9	807.3	714.7	677.2	683.8	683.8
37.5°	9315.1	8686.5	4755.7	2245.5	1219.8	849.2	694.8	613.2	580.1	582.3	591.2
40°	10212.9	9376.9	4727.0	2095.5	1120.6	743.4	602.2	536.0	511.7	502.9	500.7
42.5°	11170.2	10045.2	4731.5	1925.7	997.0	648.5	538.2	483.1	461.0	454.4	452.2
45°	12131.9	10682.7	4738.1	1749.2	866.9	575.7	491.9	445.6	432.3	423.5	423.5
47.5°	13036.3	11225.4	4614.6	1559.5	738.9	520.6	454.4	423.5	412.5	401.5	401.5
50°	13878.9	11587.1	4316.8	1338.9	637.5	476.5	425.7	403.7	392.6	381.6	381.6
52.5°	14534.1	11644.5	3824.9	1111.7	566.9	443.4	408.1	388.2	375.0	364.0	361.8
55°	14825.2	11284.9	3125.6	900.0	511.7	414.7	390.4	370.6	355.1	344.1	341.9
57.5°	14750.2	10528.3	2437.4	723.5	458.8	386.0	368.4	355.1	337.5	319.8	317.6
60°	14381.9	9515.9	1837.4	602.2	410.3	355.1	344.1	333.1	308.8	282.3	277.9
62.5°	13744.4	8243.1	1310.2	498.5	357.3	319.8	315.4	306.6	271.3	222.8	218.4
65°	12769.4	6696.8	882.3	414.7	306.6	280.1	282.3	266.9	220.6	165.4	161.0
67.5°	11344.5	4896.9	564.7	339.7	255.9	233.8	236.0	227.2	187.5	141.2	134.6
70°	9529.1	3242.5	368.4	258.1	205.1	180.9	194.1	196.3	158.8	114.7	110.3
72.5°	6985.8	1914.6	258.1	191.9	150.0	125.7	158.8	163.2	127.9	86.0	81.6
75°	3981.5	908.8	194.1	139.0	92.6	88.2	123.5	123.5	88.2	57.4	52.9
77.5°	1672.0	379.4	136.8	90.4	52.9	50.7	83.8	77.2	44.1	26.5	26.5
80°	483.1	169.8	72.8	44.1	22.1	19.9	33.1	24.3	11.0	4.4	4.4
82.5°	189.7	75.0	28.7	17.6	8.8	8.8	4.4	0.0	0.0	0.0	0.0
85°	112.5	30.9	13.2	6.6	2.2	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	28.7	6.6	4.4	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)