

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: P884098

Luminaire Tested: **NAV-SB4D-730-U-T3-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P884098  
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-730-U-T3-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 70 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

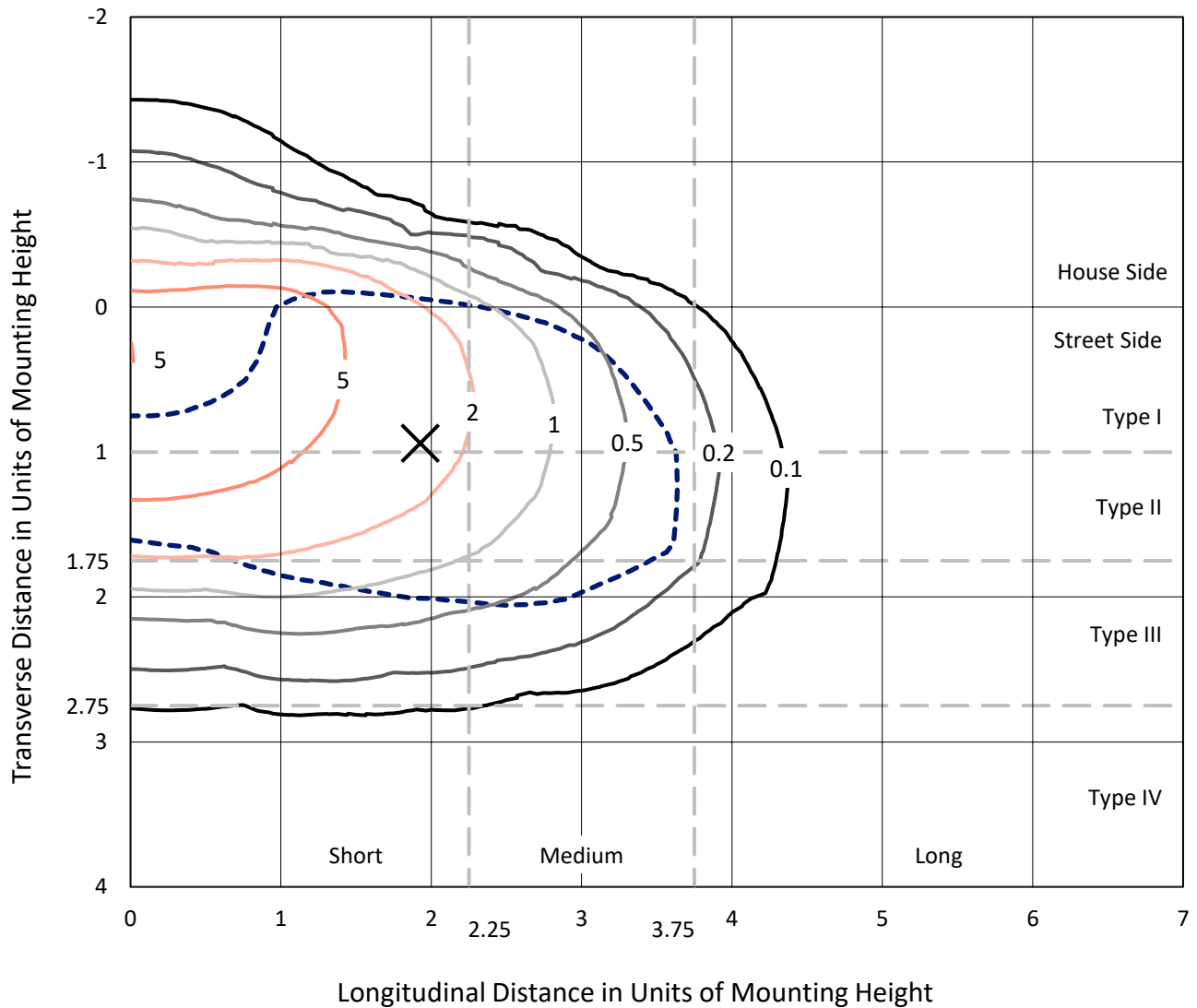
Lumens per Lamp: N/A  
Luminaire Lumens: 31838 lumens  
Efficiency: N/A  
Efficacy: 108.4 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B3 - U0 - G4  
  
Input Watts (W): 293.6  
Input Voltage (V): 120.0  
Input Current (Ain): 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

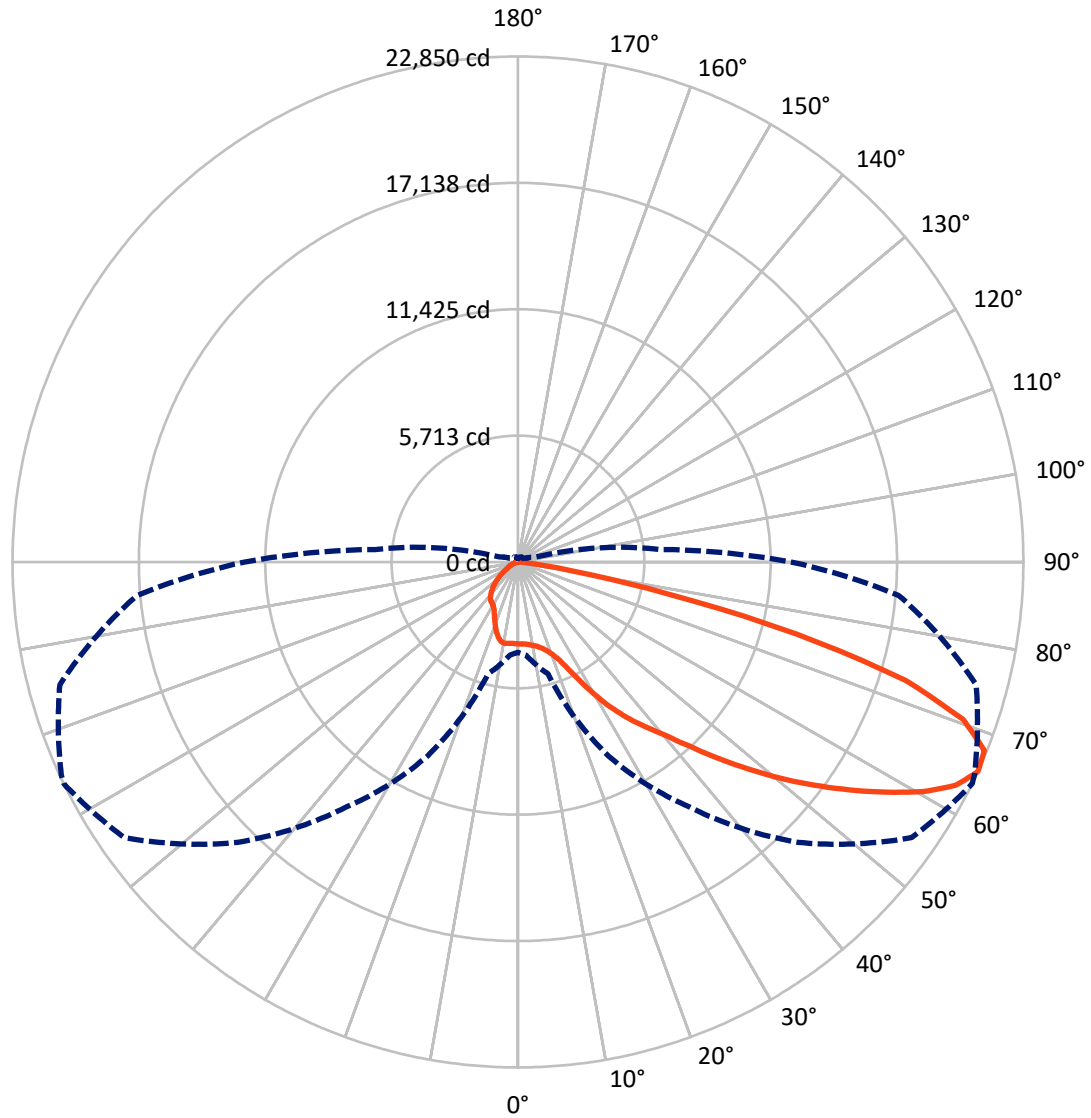
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.3 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	4257.7	0.0	4257.7
	% Fixture	13.4	0.0	13.4
<b>Street Side</b>	Lumens	27580.3	0.0	27580.3
	% Fixture	86.6	0.0	86.6
<b>Total</b>	Lumens	31838.0	0.0	31838.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	341.6	1.1
10°-20°	926.6	2.9
20°-30°	1755.9	5.5
30°-40°	3553.1	11.2
40°-50°	6052.8	19.0
50°-60°	8231.3	25.9
60°-70°	7729.6	24.3
70°-80°	3096.8	9.7
80°-90°	150.0	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°	31838.0	100.0
0°-180°	31838.0	100.0

**Coefficient of Utilization**



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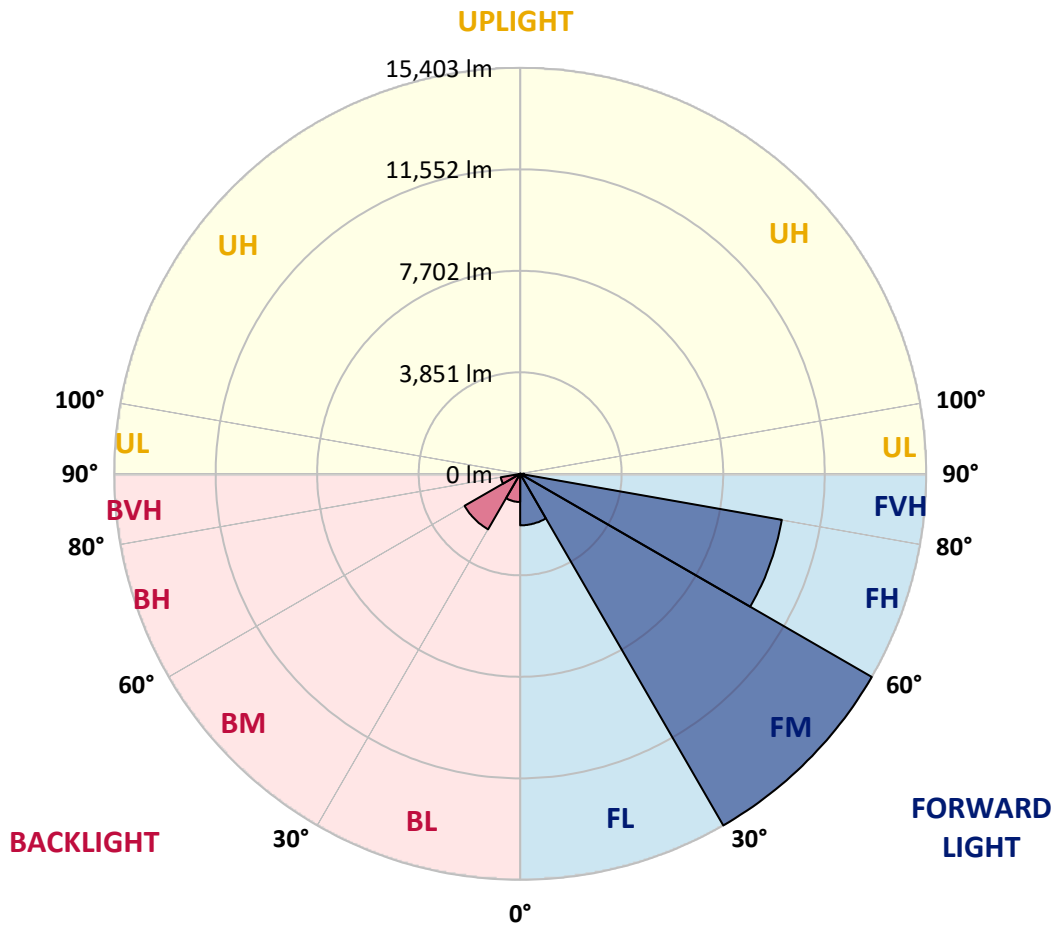
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1955.2	6.1			
FM (30°-60°)	15403.2	48.4			
FH (60°-80°)	10079.2	31.7			G4/12000
FVH (80°-90°)	142.7	0.4			G2/225
BL (0°-30°)	1069.0	3.4	B3/2500		
BM (30°-60°)	2434.1	7.6	B2/2500		
BH (60°-80°)	747.3	2.3	B2/1000		G2/1000
BVH (80°-90°)	7.3	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°	3703.1	3703.1	3703.1	3703.1	3703.1	3703.1	3703.1	3703.1	3703.1	3703.1	3703.1
2.5°	3690.3	3715.9	3709.5	3703.1	3701.0	3705.2	3707.4	3705.2	3705.2	3705.2	3707.4
5°	3619.9	3641.2	3641.2	3656.1	3677.5	3703.1	3722.3	3726.6	3730.8	3737.2	3735.1
7.5°	3485.4	3502.5	3515.3	3564.4	3617.7	3686.0	3743.6	3773.5	3777.8	3801.3	3809.8
10°	3393.6	3415.0	3436.3	3487.5	3564.4	3666.8	3765.0	3837.6	3848.2	3903.7	3929.3
12.5°	3389.3	3410.7	3438.4	3493.9	3583.6	3692.4	3811.9	3916.5	3935.7	4016.8	4070.2
15°	3434.2	3459.8	3485.4	3553.7	3649.7	3782.1	3910.1	4040.3	4059.5	4174.8	4232.4
17.5°	3525.9	3560.1	3579.3	3647.6	3750.0	3897.3	4065.9	4215.3	4232.4	4366.9	4439.4
20°	3707.4	3747.9	3754.3	3809.8	3910.1	4068.1	4268.7	4454.4	4475.7	4629.4	4710.5
22.5°	4083.0	4140.6	4089.4	4117.2	4206.8	4364.7	4582.4	4817.2	4847.1	5022.1	5094.7
25°	4744.7	4825.8	4693.4	4646.5	4684.9	4849.2	5122.4	5419.1	5453.3	5594.1	5630.4
27.5°	6044.5	5939.9	5739.3	5542.9	5427.6	5521.6	5828.9	6196.0	6238.7	6375.3	6332.6
30°	7472.3	7380.6	7109.5	6674.1	6400.9	6386.0	6669.8	7079.6	7128.7	7258.9	7128.7
32.5°	8902.4	8814.8	8520.3	7984.6	7510.8	7276.0	7472.3	7927.0	7952.6	8035.8	7843.7
35°	10308.9	10219.2	9924.7	9376.2	8793.5	8259.9	8221.5	8733.7	8742.3	8829.8	8543.8
37.5°	11724.0	11649.3	11335.5	10797.7	10223.5	9487.2	9130.7	9497.8	9508.5	9593.9	9297.2
40°	12733.5	12765.5	12550.0	12133.8	11640.7	10836.1	10150.9	10311.0	10247.0	10390.0	10212.8
42.5°	13600.1	13664.1	13476.3	13267.1	12981.1	12272.5	11414.5	11386.7	11284.3	11361.1	11177.6
45°	14349.2	14402.6	14234.0	14184.9	14178.5	13681.2	12795.4	12628.9	12485.9	12471.0	12251.1
47.5°	14624.5	14727.0	14799.6	14963.9	15284.1	15074.9	14223.3	13965.0	13804.9	13687.6	13339.7
50°	14729.1	14838.0	15085.6	15563.6	16321.3	16411.0	15644.8	15354.5	15158.1	14944.7	14432.4
52.5°	14588.3	14782.5	15115.4	15920.1	17019.3	17482.4	17008.6	16754.6	16530.5	16182.6	15422.8
55°	13758.0	13952.2	14633.1	15915.8	17367.2	18233.7	18297.7	18184.6	17932.8	17384.2	16223.2
57.5°	12007.8	12296.0	13373.8	15373.7	17360.8	18880.4	19561.3	19642.4	19360.7	18575.2	16852.8
60°	9583.2	9973.8	11288.6	14172.1	16825.0	19230.5	20669.0	21074.5	20775.7	19749.1	17362.9
62.5°	6686.9	7139.4	8383.7	12289.6	15599.9	18978.6	21477.9	22227.1	22000.8	20799.2	17559.3
65°	4078.7	4223.9	5227.0	9670.7	13516.8	17924.2	21727.6	22850.3	22775.6	21441.6	17269.0
67.5°	2717.0	2838.7	3126.8	6631.4	10492.4	15817.6	21130.0	22741.5	22762.8	21337.1	16206.1
70°	1637.0	1741.6	1929.4	3856.8	6800.0	12520.1	19279.5	21354.1	21477.9	19939.1	14191.3
72.5°	674.5	744.9	915.6	1748.0	3521.7	7946.2	15352.3	18334.0	18622.2	16765.3	10891.6
75°	382.0	418.3	537.9	877.2	1528.2	3703.1	9299.3	13015.2	13440.0	11555.3	6552.4
77.5°	254.0	271.1	347.9	567.7	860.1	1263.5	3974.2	6780.8	7591.9	6311.3	2836.5
80°	170.7	185.7	239.0	379.9	559.2	542.1	1265.7	2512.1	3090.5	2168.5	691.5
82.5°	115.3	117.4	170.7	249.7	354.3	262.5	373.5	781.2	981.8	627.5	262.5
85°	66.2	64.0	125.9	145.1	157.9	108.9	113.1	234.8	307.3	264.7	149.4
87.5°	8.5	12.8	49.1	38.4	21.3	23.5	23.5	40.6	59.8	64.0	32.0
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°	3703.1	3703.1	3703.1	3703.1	3703.1	3703.1	3703.1	3703.1	3703.1	3703.1	3703.1
2.5°	3707.4	3705.2	3698.8	3692.4	3677.5	3668.9	3673.2	3668.9	3666.8	3668.9	3677.5
5°	3735.1	3728.7	3711.6	3690.3	3660.4	3624.1	3600.6	3566.5	3534.5	3515.3	3519.5
7.5°	3809.8	3803.4	3779.9	3720.2	3624.1	3472.6	3333.8	3212.2	3120.4	3067.1	3069.2
10°	3929.3	3918.7	3882.4	3750.0	3498.2	3167.4	2892.0	2663.7	2514.3	2443.8	2437.4
12.5°	4070.2	4057.4	3993.4	3722.3	3259.1	2742.6	2362.7	2108.7	1970.0	1908.1	1901.7
15°	4236.7	4219.6	4093.7	3590.0	2911.2	2273.1	1925.2	1735.2	1645.6	1590.1	1592.2
17.5°	4443.7	4413.8	4168.4	3391.5	2533.5	1914.5	1656.3	1513.3	1434.3	1380.9	1376.7
20°	4712.6	4663.5	4228.1	3154.6	2185.6	1688.3	1474.8	1355.3	1295.5	1248.6	1240.1
22.5°	5088.3	5017.8	4300.7	2898.4	1940.1	1532.5	1340.4	1252.9	1203.8	1150.4	1141.9
25°	5553.6	5470.3	4390.3	2661.5	1771.5	1398.0	1242.2	1169.6	1112.0	1050.1	1043.7
27.5°	6204.5	6055.1	4497.1	2467.3	1626.4	1282.7	1152.5	1071.4	1005.3	954.1	943.4
30°	6930.2	6684.8	4591.0	2349.9	1494.0	1176.0	1035.2	954.1	892.2	855.9	849.5
32.5°	7617.5	7284.5	4652.9	2298.7	1374.5	1054.4	907.1	819.6	772.6	762.0	768.4
35°	8266.3	7826.6	4646.5	2249.6	1267.8	932.7	781.2	691.5	655.2	661.6	661.6
37.5°	9013.3	8405.1	4601.6	2172.8	1180.3	821.7	672.3	593.3	561.3	563.5	572.0
40°	9882.0	9073.1	4573.9	2027.6	1084.2	719.3	582.7	518.6	495.2	486.6	484.5
42.5°	10808.3	9719.8	4578.2	1863.3	964.7	627.5	520.8	467.4	446.1	439.7	437.5
45°	11738.9	10336.6	4584.6	1692.5	838.8	557.1	476.0	431.1	418.3	409.8	409.8
47.5°	12614.0	10861.7	4465.1	1509.0	715.0	503.7	439.7	409.8	399.1	388.5	388.5
50°	13429.3	11211.7	4176.9	1295.5	616.8	461.0	411.9	390.6	379.9	369.2	369.2
52.5°	14063.2	11267.2	3701.0	1075.7	548.5	429.0	394.9	375.6	362.8	352.2	350.0
55°	14344.9	10919.3	3024.4	870.8	495.2	401.3	377.8	358.6	343.6	333.0	330.8
57.5°	14272.4	10187.2	2358.5	700.1	443.9	373.5	356.4	343.6	326.6	309.5	307.3
60°	13915.9	9207.6	1777.9	582.7	397.0	343.6	333.0	322.3	298.8	273.2	268.9
62.5°	13299.1	7976.1	1267.8	482.4	345.8	309.5	305.2	296.7	262.5	215.6	211.3
65°	12355.7	6479.9	853.7	401.3	296.7	271.1	273.2	258.3	213.4	160.1	155.8
67.5°	10976.9	4738.2	546.4	328.7	247.6	226.2	228.4	219.8	181.4	136.6	130.2
70°	9220.4	3137.5	356.4	249.7	198.5	175.0	187.8	190.0	153.7	111.0	106.7
72.5°	6759.5	1852.6	249.7	185.7	145.1	121.7	153.7	157.9	123.8	83.2	79.0
75°	3852.5	879.4	187.8	134.5	89.6	85.4	119.5	119.5	85.4	55.5	51.2
77.5°	1617.8	367.1	132.3	87.5	51.2	49.1	81.1	74.7	42.7	25.6	25.6
80°	467.4	164.3	70.4	42.7	21.3	19.2	32.0	23.5	10.7	4.3	4.3
82.5°	183.6	72.6	27.7	17.1	8.5	8.5	4.3	0.0	0.0	0.0	0.0
85°	108.9	29.9	12.8	6.4	2.1	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	27.7	6.4	4.3	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)