

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: P884800

Luminaire Tested: **NAV-SB5D-740-U-T4FT-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884800
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5D-740-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 4000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 42151 lumens
Efficiency: N/A
Efficacy: 115.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

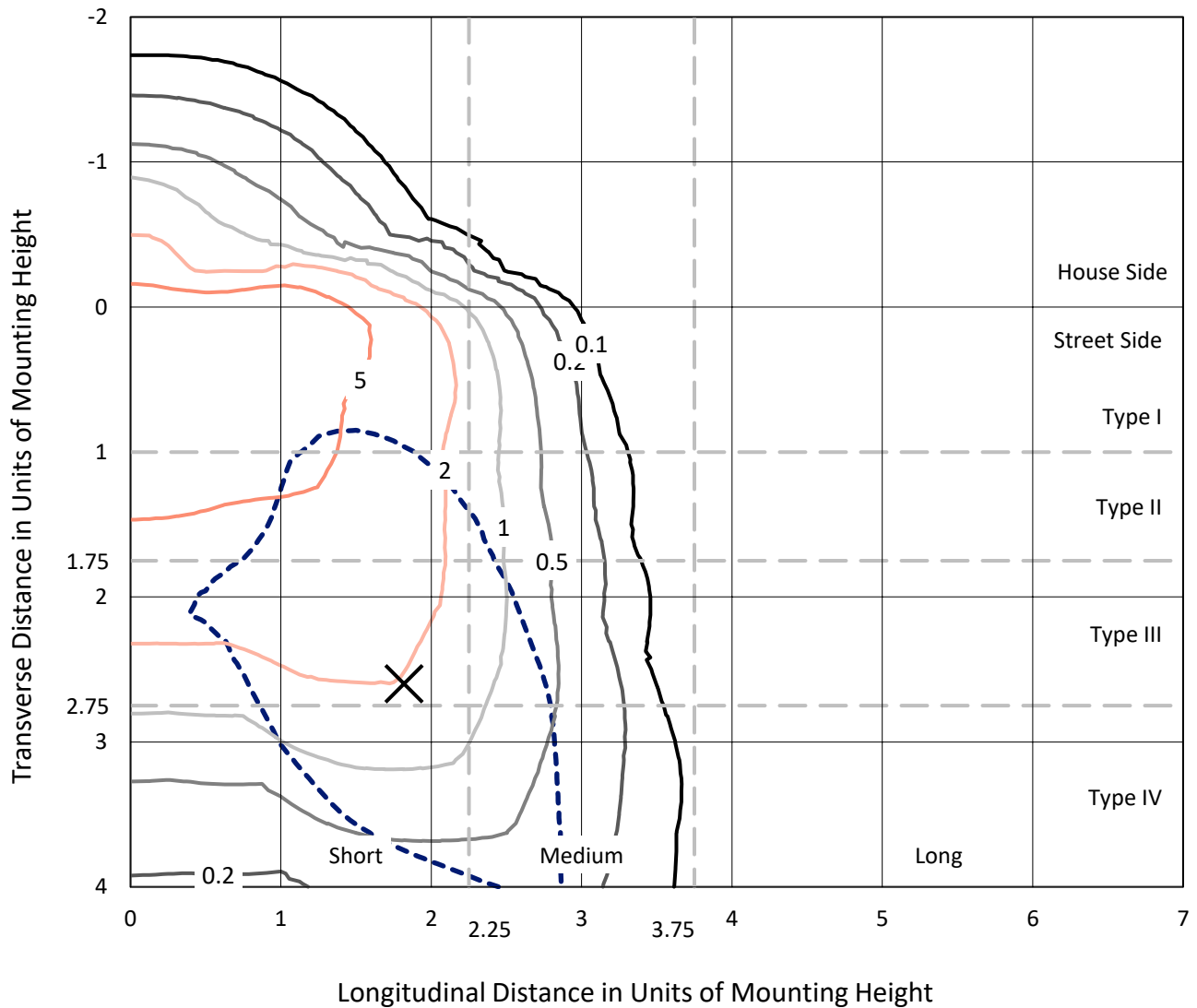
Input Watts (W): 364.9
Input Voltage (V): 120.0
Input Current (Ain): 3.094
Voltage Rise (V): NR
Power Factor: 0.998
Total Harmonic Distortion (THDi): 3.28
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

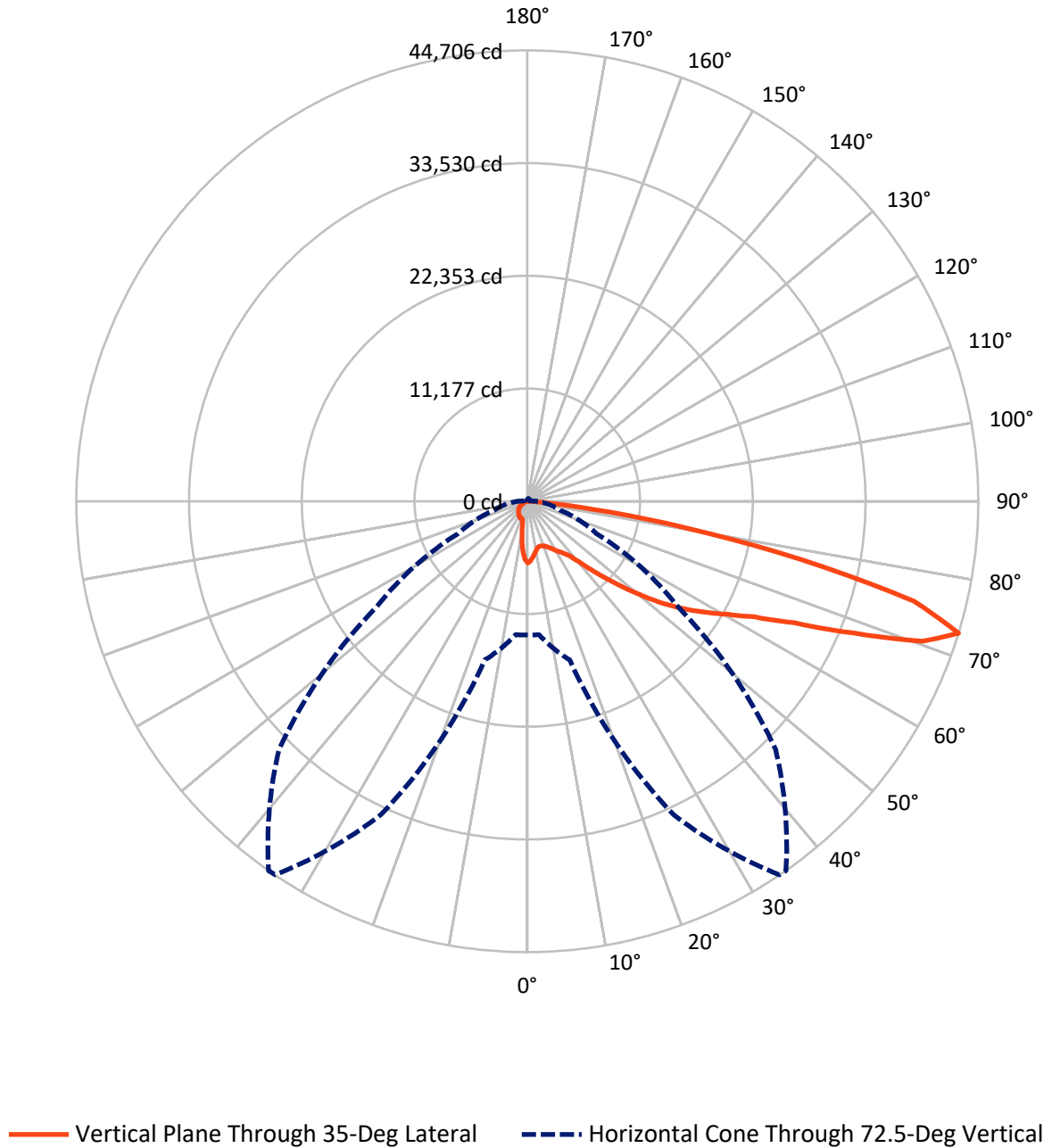
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.8 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4743.9	0.0	4743.9
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	37407.1	0.0	37407.1
	% Fixture	88.7	0.0	88.7
Total	Lumens	42151.0	0.0	42151.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	502.0	1.2
10°-20°	1174.4	2.8
20°-30°	1907.8	4.5
30°-40°	3183.1	7.6
40°-50°	6022.4	14.3
50°-60°	9569.6	22.7
60°-70°	11838.3	28.1
70°-80°	7358.8	17.5
80°-90°	594.7	1.4
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°	42151.0	100.0
0°-180°	42151.0	100.0

Coefficient of Utilization



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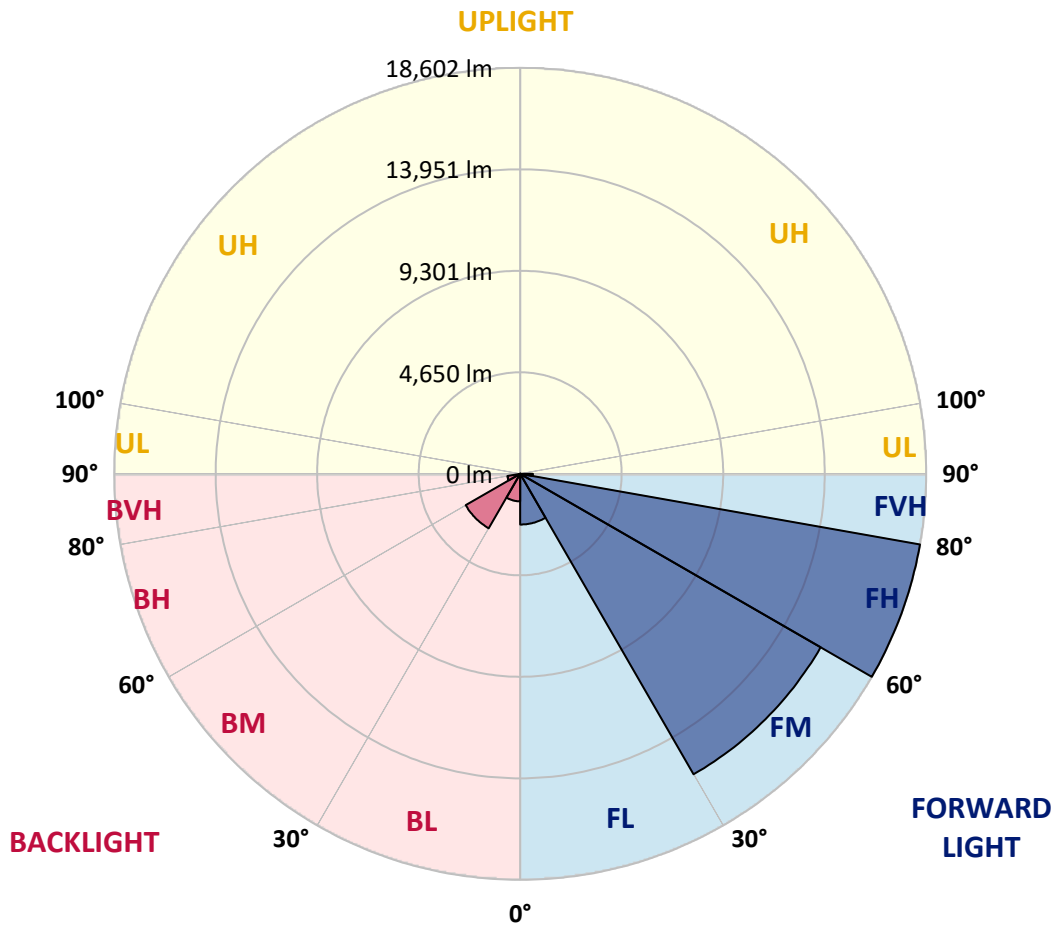
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2323.6	5.5			
FM (30°-60°)	15895.1	37.7			
FH (60°-80°)	18601.8	44.1			G5
FVH (80°-90°)	586.6	1.4			G4/750
BL (0°-30°)	1260.5	3.0	B3/2500		
BM (30°-60°)	2880.0	6.8	B3/5000		
BH (60°-80°)	595.3	1.4	B2/1000		G2/1000
BVH (80°-90°)	8.1	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-G5

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	6109.1	6109.1	6109.1	6109.1	6109.1	6109.1	6109.1	6109.1	6109.1	6109.1	6109.1
2.5°	5837.3	5886.7	5896.0	5911.4	5911.4	5930.0	5960.8	6004.1	6075.1	6112.2	6136.9
5°	5380.2	5417.3	5463.6	5500.7	5571.7	5581.0	5701.4	5818.8	5982.5	6106.0	6192.5
7.5°	4920.0	4963.3	5025.0	5114.6	5207.2	5235.0	5417.3	5614.9	5874.4	6106.0	6251.2
10°	4595.7	4598.8	4654.4	4744.0	4892.2	4926.2	5148.6	5429.6	5753.9	6068.9	6306.8
12.5°	4413.5	4435.1	4459.8	4527.8	4669.8	4691.5	4929.3	5259.8	5633.5	6047.3	6371.6
15°	4413.5	4428.9	4444.4	4478.4	4592.6	4611.2	4821.2	5151.7	5571.7	6056.6	6476.6
17.5°	4459.8	4484.5	4472.2	4512.3	4632.8	4645.1	4830.4	5120.8	5568.6	6115.3	6637.2
20°	4571.0	4589.5	4564.8	4589.5	4710.0	4734.7	4926.2	5179.4	5621.1	6217.2	6838.0
22.5°	4747.1	4756.3	4697.6	4716.2	4839.7	4870.6	5093.0	5346.2	5747.7	6380.9	7106.7
25°	4969.4	4988.0	4898.4	4920.0	5037.4	5074.4	5330.8	5596.4	5948.5	6606.3	7449.5
27.5°	5225.8	5235.0	5157.8	5154.7	5306.1	5358.6	5618.0	5905.3	6217.2	6890.5	7881.9
30°	5519.2	5547.0	5472.9	5460.5	5652.0	5695.2	5951.6	6285.1	6612.5	7316.7	8496.5
32.5°	5750.8	5772.4	5729.2	5760.1	5954.7	5988.6	6356.2	6822.5	7233.3	7922.1	9333.5
35°	6084.4	6096.7	5997.9	6053.5	6275.9	6362.4	6909.0	7576.1	8014.7	8681.8	10426.8
37.5°	7292.0	7292.0	6872.0	6597.1	6810.2	6887.4	7665.7	8524.3	8978.3	9701.0	11804.3
40°	8962.9	8935.1	8320.5	7758.4	7730.6	7881.9	8743.6	9719.6	10223.0	10924.1	13354.8
42.5°	10745.0	10701.7	9864.7	9308.8	9216.1	9268.6	9988.3	11192.8	11705.5	12415.9	15022.6
45°	12326.3	12313.9	11548.0	10800.6	10633.8	10800.6	11541.8	12916.2	13283.7	14031.1	16687.3
47.5°	13651.3	13651.3	13092.2	12604.3	12517.8	12616.6	13645.1	14828.0	14794.0	15751.5	18308.7
50°	15177.0	15164.6	14633.4	14423.4	14513.0	14651.9	16066.5	16841.7	16356.8	17440.9	19757.3
52.5°	16245.6	16319.7	16137.5	16103.5	16560.6	16801.6	18524.9	18812.2	17755.9	19043.8	20841.3
55°	17091.9	17178.3	17388.4	17626.2	18506.4	18821.4	20906.2	20680.7	18926.5	20433.7	21465.2
57.5°	18290.2	18166.7	18491.0	18960.4	20384.2	20764.1	23213.3	22444.3	19868.5	21561.0	21533.2
60°	19744.9	19763.4	19819.0	20412.0	22259.0	22747.0	25486.5	24112.1	20473.8	22252.8	20779.6
62.5°	21493.0	21520.8	21635.1	22546.2	24776.1	25236.3	27907.9	25477.2	20751.8	22058.2	18833.8
65°	21372.6	21489.9	22765.5	25881.8	28602.8	29056.8	30733.9	26434.6	20331.7	20279.2	15334.5
67.5°	19470.0	19661.5	21795.7	29866.0	34372.1	34878.7	34149.8	26623.0	18518.8	15770.0	10003.7
70°	16974.5	17042.5	19609.0	33448.7	41052.6	41565.3	37207.4	24550.6	14052.8	8796.1	4481.4
72.5°	13255.9	13271.4	16282.7	34279.5	44678.5	44706.3	34807.6	18225.4	7557.6	3378.8	1556.6
75°	9469.4	9376.7	10905.6	27799.8	39307.6	39622.6	26094.9	8549.0	2887.8	1596.8	775.2
77.5°	5077.5	5179.4	6170.9	16486.5	27154.3	27691.7	14238.1	2464.6	1470.1	1087.2	512.7
80°	1569.0	1655.4	2529.5	7548.3	15380.8	15705.1	5278.3	1096.4	1025.4	775.2	336.6
82.5°	494.2	512.7	1179.8	3171.9	6384.0	6532.2	1528.8	620.8	701.1	512.7	197.7
85°	142.1	145.2	525.0	1182.9	1578.2	1609.1	429.3	240.9	401.5	318.1	101.9
87.5°	15.4	49.4	197.7	197.7	139.0	135.9	46.3	52.5	114.3	40.2	18.5
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°	6109.1	6109.1	6109.1	6109.1	6109.1	6109.1	6109.1	6109.1	6109.1	6109.1	6109.1
2.5°	6121.4	6124.5	6084.4	6016.4	5942.3	5880.5	5803.3	5741.6	5698.3	5686.0	5707.6
5°	6164.7	6143.1	6028.8	5821.9	5574.8	5361.7	5123.9	4935.5	4811.9	4759.4	4777.9
7.5°	6229.5	6167.8	5917.6	5509.9	5037.4	4617.3	4191.1	3860.7	3650.6	3545.6	3561.1
10°	6285.1	6161.6	5732.3	5059.0	4336.3	3700.0	3125.6	2727.2	2504.8	2399.8	2402.9
12.5°	6337.6	6158.5	5491.4	4524.7	3545.6	2767.3	2233.0	2035.3	1973.6	1951.9	1945.8
15°	6436.5	6167.8	5188.7	3913.2	2758.0	2090.9	1896.4	1893.3	1905.6	1899.4	1896.4
17.5°	6572.4	6177.0	4845.9	3264.6	2128.0	1843.8	1834.6	1862.4	1880.9	1871.6	1868.6
20°	6748.4	6214.1	4481.4	2622.2	1828.4	1782.1	1803.7	1828.4	1843.8	1828.4	1825.3
22.5°	6995.5	6279.0	4083.0	2106.4	1732.7	1745.0	1763.5	1791.3	1806.8	1785.2	1782.1
25°	7298.2	6380.9	3690.8	1831.5	1686.3	1701.8	1729.6	1760.5	1779.0	1757.4	1754.3
27.5°	7690.4	6544.6	3329.4	1769.7	1640.0	1649.3	1689.4	1735.7	1760.5	1732.7	1732.7
30°	8258.7	6813.3	3017.5	1797.5	1612.2	1590.6	1646.2	1711.0	1738.8	1714.1	1711.0
32.5°	9012.3	7193.2	2826.0	1840.8	1599.9	1522.6	1575.1	1658.5	1704.9	1689.4	1689.4
35°	10000.6	7770.7	2751.9	1890.2	1590.6	1451.6	1488.7	1578.2	1658.5	1674.0	1674.0
37.5°	11199.0	8573.7	2773.5	1911.8	1562.8	1392.9	1411.5	1488.7	1593.7	1643.1	1655.4
40°	12561.0	9509.6	2897.0	1890.2	1531.9	1343.5	1346.6	1405.3	1497.9	1572.1	1596.8
42.5°	13966.3	10602.9	3125.6	1809.9	1504.1	1300.3	1291.0	1331.2	1392.9	1445.4	1467.0
45°	15303.6	11727.1	3351.0	1698.7	1470.1	1257.0	1235.4	1250.9	1263.2	1284.8	1297.2
47.5°	16471.1	12517.8	3286.2	1596.8	1423.8	1207.6	1170.5	1164.4	1127.3	1124.2	1121.1
50°	17277.2	12690.7	2918.7	1494.8	1355.9	1152.0	1093.3	1056.3	991.4	960.5	963.6
52.5°	17533.5	12008.2	2384.3	1392.9	1244.7	1077.9	994.5	935.8	855.5	827.7	824.6
55°	17193.8	10670.8	1905.6	1269.4	1090.2	979.1	886.4	809.2	744.3	710.4	710.4
57.5°	16363.0	8969.1	1507.2	1124.2	926.6	867.9	775.2	698.0	642.4	608.4	602.3
60°	14985.5	7122.1	1192.2	951.3	790.7	747.4	651.7	602.3	552.8	512.7	503.4
62.5°	12894.6	5083.7	935.8	753.6	660.9	611.5	555.9	518.9	460.2	404.6	395.3
65°	10062.4	3110.1	722.7	552.8	531.2	506.5	472.5	438.6	367.5	311.9	302.7
67.5°	6346.9	1473.2	515.8	417.0	420.0	407.7	392.2	364.4	311.9	262.5	256.3
70°	2795.1	713.4	339.7	318.1	311.9	311.9	324.3	315.0	265.6	219.3	210.0
72.5°	951.3	383.0	253.3	240.9	225.5	222.4	271.8	262.5	213.1	169.9	160.6
75°	497.3	256.3	185.3	173.0	135.9	163.7	216.2	203.8	151.3	111.2	101.9
77.5°	324.3	182.2	126.6	111.2	77.2	108.1	160.6	142.1	89.6	55.6	49.4
80°	203.8	120.5	74.1	52.5	37.1	58.7	86.5	61.8	34.0	12.4	9.3
82.5°	108.1	61.8	27.8	18.5	15.4	18.5	21.6	15.4	6.2	0.0	0.0
85°	43.2	21.6	9.3	6.2	3.1	0.0	6.2	3.1	0.0	0.0	0.0
87.5°	15.4	3.1	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)