

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: P884846

Luminaire Tested: **NAV-SB5D-835-U-T2-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884846
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5D-835-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 31815 lumens
Efficiency: N/A
Efficacy: 87.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G4

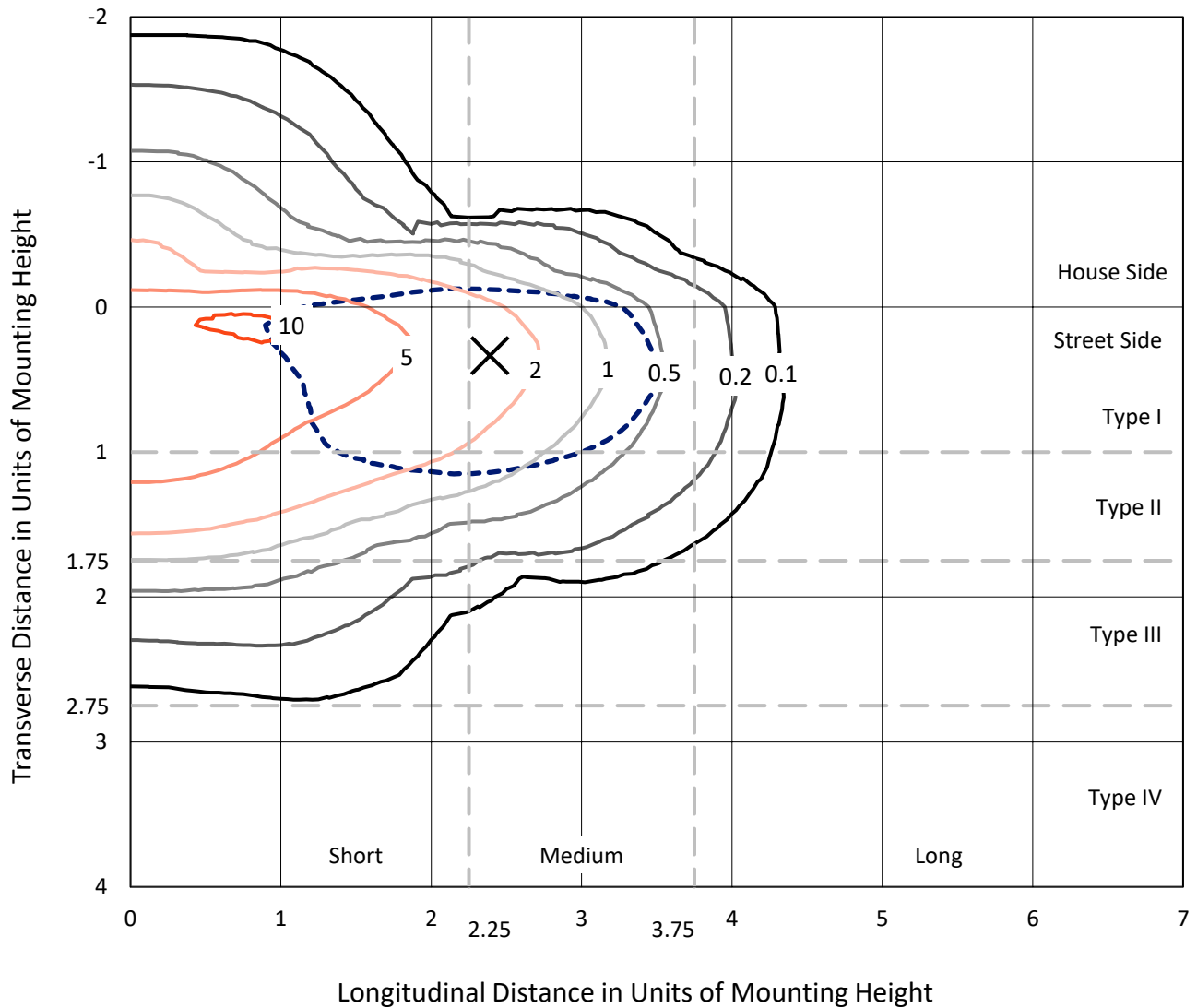
Input Watts (W): 364.9
Input Voltage (V): 120.0
Input Current (Ain): 3.094
Voltage Rise (V): NR
Power Factor: 0.998
Total Harmonic Distortion (THDi): 3.28
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

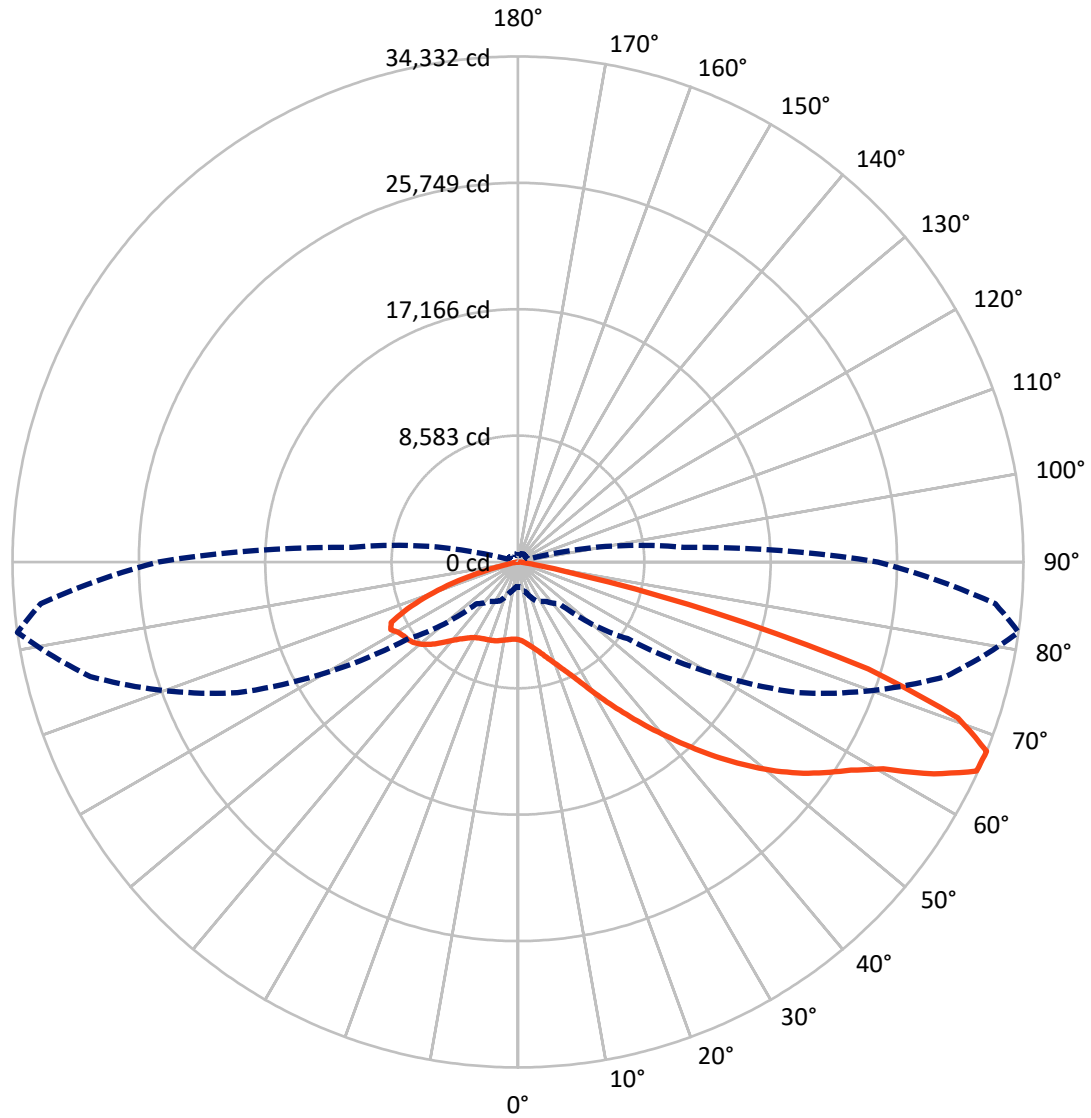
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.1 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5763.0	0.0	5763.0
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	26052.0	0.0	26052.0
	% Fixture	81.9	0.0	81.9
Total	Lumens	31815.0	0.0	31815.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	469.6	1.5
10°-20°	1220.2	3.8
20°-30°	1954.4	6.1
30°-40°	3456.0	10.9
40°-50°	6055.3	19.0
50°-60°	8076.1	25.4
60°-70°	7518.4	23.6
70°-80°	2885.6	9.1
80°-90°	179.2	0.6
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°	31815.0	100.0
0°-180°	31815.0	100.0

Coefficient of Utilization



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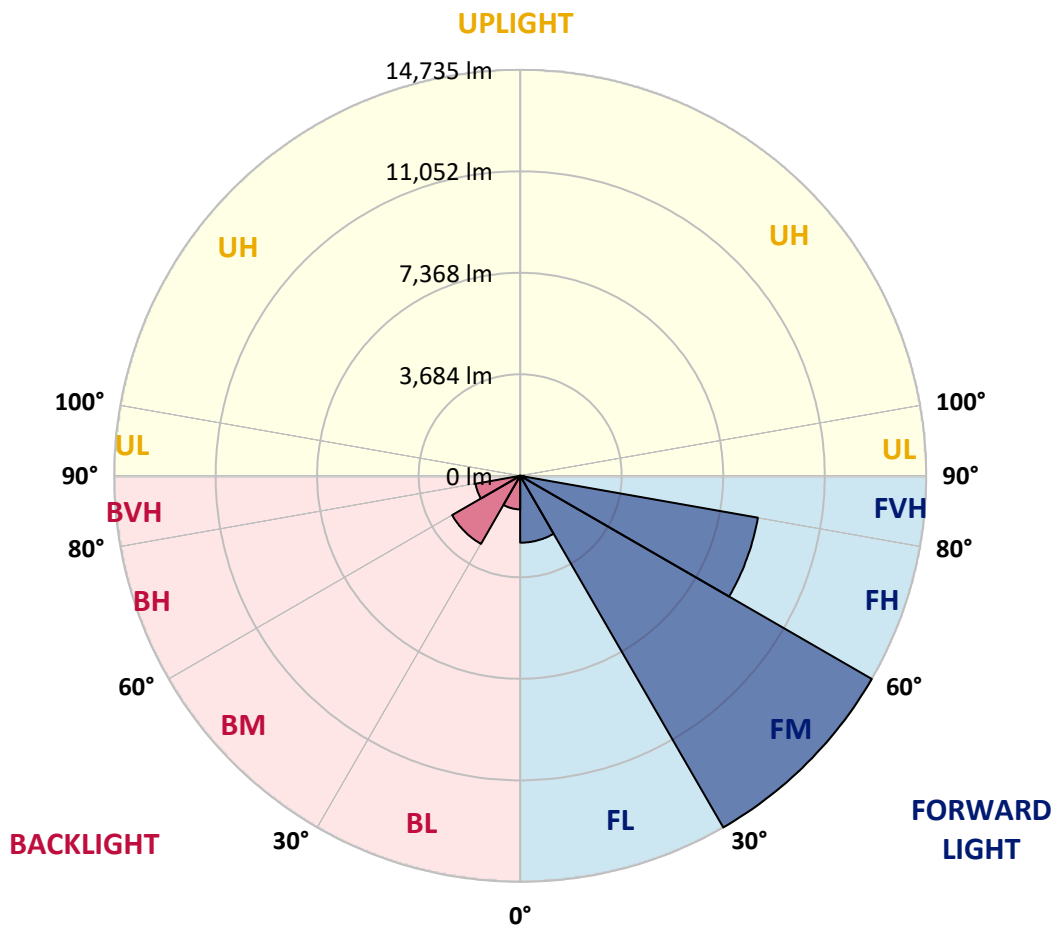
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2427.1	7.6			
FM (30°-60°)	14735.4	46.3			
FH (60°-80°)	8759.2	27.5			G4/12000
FVH (80°-90°)	130.3	0.4			G2/225
BL (0°-30°)	1217.1	3.8	B3/2500		
BM (30°-60°)	2852.1	9.0	B3/5000		
BH (60°-80°)	1644.9	5.2	B3/2500		G3/2500
BVH (80°-90°)	48.9	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	5270.7	5270.7	5270.7	5270.7	5270.7	5270.7	5270.7	5270.7	5270.7	5270.7	5270.7
2.5°	5570.7	5602.8	5584.5	5575.3	5559.3	5536.4	5518.1	5460.8	5401.2	5362.3	5348.5
5°	5683.0	5715.0	5712.8	5721.9	5733.4	5740.2	5735.7	5671.5	5586.8	5520.3	5481.4
7.5°	5586.8	5623.4	5653.2	5699.0	5779.2	5863.9	5905.2	5891.4	5804.4	5712.8	5664.7
10°	5314.2	5353.1	5424.1	5531.8	5701.3	5884.5	6038.0	6109.0	6054.1	5953.3	5886.8
12.5°	4814.8	4853.8	4993.5	5227.1	5511.2	5829.6	6122.8	6312.9	6326.6	6225.8	6148.0
15°	4253.6	4292.6	4441.5	4734.7	5167.6	5678.4	6168.6	6528.2	6649.6	6562.6	6468.7
17.5°	3905.5	3939.8	4052.1	4288.0	4739.2	5376.0	6152.5	6757.3	7034.4	6965.7	6853.5
20°	3800.1	3829.9	3882.6	4047.5	4423.1	5062.2	6047.2	6972.6	7449.0	7410.1	7284.1
22.5°	3912.3	3939.8	3955.9	4029.2	4265.1	4856.1	5914.3	7192.5	7930.1	7934.6	7781.2
25°	4171.2	4198.7	4180.3	4226.2	4329.2	4791.9	5863.9	7451.3	8534.8	8585.2	8411.1
27.5°	4597.2	4599.5	4556.0	4553.7	4569.7	4888.1	5916.6	7728.5	9297.5	9391.5	9176.1
30°	5451.6	5417.3	5250.1	5069.1	4986.6	5176.8	6063.2	8056.0	10197.7	10365.0	10094.7
32.5°	6768.7	6718.3	6411.4	5978.5	5543.3	5641.7	6326.6	8429.4	11178.1	11480.5	11150.6
35°	8198.1	8184.3	7863.6	7220.0	6459.5	6303.7	6755.0	8919.6	12247.8	12728.9	12337.2
37.5°	9526.6	9519.7	9336.5	8578.3	7652.9	7226.8	7442.2	9561.0	13393.1	14089.5	13626.8
40°	10740.6	10761.2	10578.0	9900.0	8967.7	8411.1	8376.7	10353.5	14666.7	15571.5	15021.7
42.5°	11789.7	11812.6	11627.1	11125.4	10266.5	9721.3	9524.3	11324.7	15910.5	17163.5	16512.9
45°	12502.1	12644.1	12616.6	12215.8	11599.6	11033.8	10903.3	12543.3	17328.4	18851.6	18088.9
47.5°	12703.7	12834.2	13040.4	13095.4	12719.7	12163.1	12318.8	14011.6	18762.3	20542.1	19674.0
50°	12206.6	12328.0	12756.3	13326.7	13587.8	13416.0	13695.5	15585.2	20230.6	22228.0	21229.3
52.5°	11226.2	11349.9	11890.5	12793.0	13858.1	14398.7	15076.7	17136.0	21653.0	23824.5	22702.1
55°	9808.3	9938.9	10633.0	11654.6	13342.7	14804.1	16228.9	18684.4	22956.4	25260.7	24030.7
57.5°	7879.7	7975.9	8697.4	10126.7	12046.3	14401.0	17078.7	20374.9	24184.1	26671.7	25347.8
60°	5135.5	5220.3	6058.6	7652.9	9897.7	13054.1	17248.2	22260.0	25815.1	28506.5	27123.0
62.5°	3415.3	3472.5	3969.6	5140.1	6970.3	10468.0	16256.4	23765.0	28206.4	31699.6	30167.2
65°	2343.3	2400.5	2897.6	3713.1	4503.3	6924.5	13404.6	23565.7	30373.3	34235.3	32423.4
67.5°	1672.1	1720.2	2141.7	2911.4	3259.5	4022.3	9086.8	21018.5	30061.8	34331.5	32544.8
70°	1198.0	1225.5	1573.6	2267.7	2590.7	2416.6	5053.1	16075.4	26321.3	31701.9	30066.4
72.5°	838.4	847.5	1092.6	1727.1	2086.7	1763.8	2405.1	10717.7	19907.6	24882.8	23309.1
75°	568.1	579.5	735.3	1266.7	1674.4	1346.9	1273.6	5747.1	11686.6	13773.4	12346.3
77.5°	348.2	352.8	474.2	865.8	1253.0	1026.2	820.0	2434.9	4521.6	4439.2	3784.1
80°	197.0	197.0	302.4	538.3	854.4	662.0	574.9	1035.4	1431.6	1257.5	1108.7
82.5°	109.9	112.2	219.9	334.4	565.8	391.7	316.1	478.7	618.5	547.5	476.4
85°	45.8	50.4	135.1	158.1	270.3	194.7	128.3	201.6	229.1	203.9	148.9
87.5°	4.6	6.9	41.2	29.8	32.1	38.9	18.3	38.9	32.1	32.1	22.9
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°	5270.7	5270.7	5270.7	5270.7	5270.7	5270.7	5270.7	5270.7	5270.7	5270.7	5270.7
2.5°	5305.0	5270.7	5183.6	5082.8	4950.0	4885.8	4798.8	4739.2	4688.9	4693.4	4647.6
5°	5408.1	5321.1	5126.4	4883.6	4581.2	4365.9	4136.8	3978.8	3850.5	3823.0	3761.2
7.5°	5550.1	5412.7	5071.4	4633.9	4123.1	3736.0	3390.1	3167.9	3009.8	2959.5	2909.1
10°	5733.4	5534.1	5000.4	4320.1	3584.8	3092.3	2721.2	2547.1	2439.5	2402.8	2375.4
12.5°	5946.4	5673.8	4906.5	3937.5	3030.5	2556.3	2320.4	2233.3	2199.0	2187.5	2180.7
15°	6214.4	5847.9	4764.4	3484.0	2560.9	2228.8	2128.0	2116.5	2121.1	2116.5	2114.2
17.5°	6532.8	6038.0	4533.1	3016.7	2244.8	2061.5	2024.9	2034.1	2045.5	2043.2	2038.6
20°	6881.0	6225.8	4237.6	2602.1	2029.5	1942.4	1921.8	1931.0	1940.1	1935.6	1933.3
22.5°	7277.2	6427.4	3910.1	2279.1	1885.2	1832.5	1809.6	1811.9	1811.9	1802.7	1798.1
25°	7751.4	6649.6	3566.5	2050.1	1775.2	1734.0	1706.5	1697.3	1683.6	1656.1	1651.5
27.5°	8317.2	6885.5	3236.6	1889.7	1688.2	1649.2	1617.2	1594.3	1559.9	1514.1	1509.5
30°	8954.0	7171.9	2957.2	1789.0	1619.5	1580.5	1543.9	1509.5	1459.1	1401.8	1397.3
32.5°	9703.0	7478.8	2753.3	1722.5	1557.6	1516.4	1472.9	1431.6	1376.7	1319.4	1321.7
35°	10596.3	7849.9	2634.2	1676.7	1509.5	1454.5	1406.4	1360.6	1319.4	1269.0	1264.4
37.5°	11565.2	8243.9	2597.5	1653.8	1477.4	1392.7	1337.7	1305.6	1301.1	1271.3	1269.0
40°	12625.8	8711.1	2625.0	1640.1	1443.1	1333.1	1273.6	1266.7	1278.2	1225.5	1227.8
42.5°	13748.2	9265.5	2670.8	1624.0	1395.0	1273.6	1216.3	1216.3	1207.1	1133.8	1133.8
45°	14962.2	9904.6	2716.7	1585.1	1337.7	1214.0	1170.5	1154.5	1115.5	1044.5	1042.2
47.5°	16185.4	10555.1	2751.0	1514.1	1269.0	1163.6	1124.7	1088.0	1030.8	966.6	964.3
50°	17346.7	11139.2	2714.4	1408.7	1191.1	1115.5	1074.3	1023.9	962.1	918.5	911.7
52.5°	18384.3	11645.4	2558.6	1285.0	1108.7	1065.1	1028.5	975.8	925.4	879.6	875.0
55°	19286.8	12055.4	2283.7	1168.2	1035.4	1021.6	985.0	918.5	849.8	810.9	806.3
57.5°	20152.7	12366.9	1940.1	1072.0	968.9	973.5	918.5	859.0	794.8	753.6	749.0
60°	21304.9	12783.8	1592.0	982.7	897.9	911.7	852.1	808.6	728.4	675.7	668.9
62.5°	23146.5	13432.1	1264.4	872.7	815.5	820.0	794.8	742.2	645.9	584.1	579.5
65°	24607.9	13193.9	996.4	753.6	721.5	728.4	728.4	671.1	568.1	497.1	490.2
67.5°	24443.0	11297.2	794.8	636.8	632.2	636.8	652.8	604.7	503.9	446.7	437.5
70°	22516.6	8986.0	636.8	529.1	549.7	538.3	584.1	552.0	453.5	396.3	389.4
72.5°	18372.9	6473.2	485.6	437.5	421.5	439.8	526.8	497.1	377.9	313.8	306.9
75°	10736.0	3454.2	361.9	345.9	304.6	366.5	467.3	423.8	288.6	231.4	224.5
77.5°	3495.5	1204.9	265.7	254.3	226.8	295.5	398.6	357.3	235.9	183.2	176.4
80°	936.9	364.2	181.0	167.2	146.6	219.9	316.1	284.0	169.5	119.1	116.8
82.5°	375.7	153.5	105.4	93.9	80.2	151.2	249.7	229.1	126.0	75.6	75.6
85°	121.4	50.4	38.9	29.8	36.6	93.9	148.9	155.8	89.3	38.9	29.8
87.5°	16.0	6.9	6.9	9.2	6.9	16.0	45.8	43.5	25.2	4.6	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)