

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: P884798

Luminaire Tested: **NAV-SB5D-740-U-T3-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884798
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-740-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 4000K, 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: 43661 lumens
Efficiency: N/A
Efficacy: 119.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G5

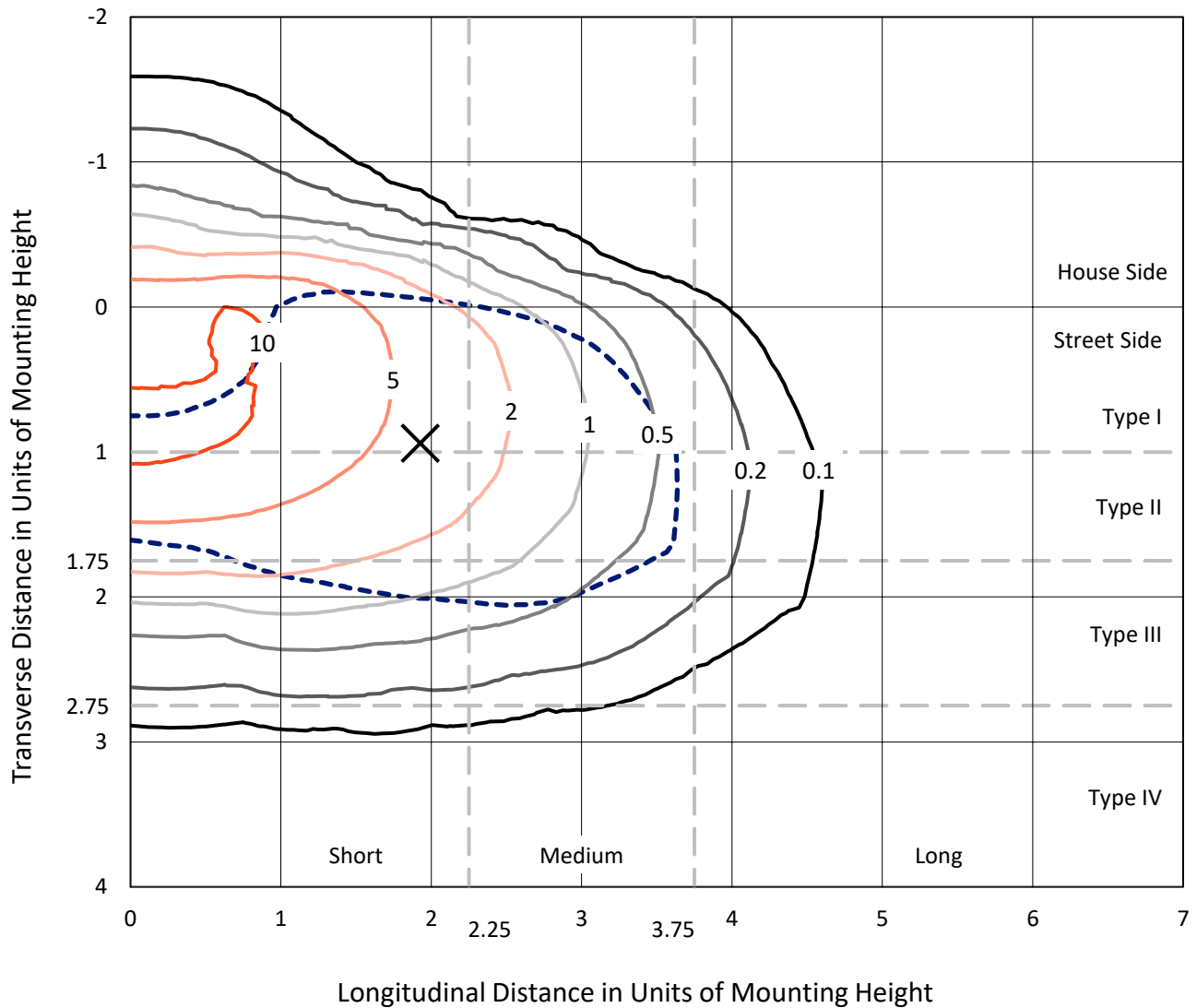
Input Watts (W): 364.9
Input Voltage (V): 120.0
Input Current (Ain): 3.094
Voltage Rise (V): NR
Power Factor: 0.998
Total Harmonic Distortion (THDi): 3.28
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

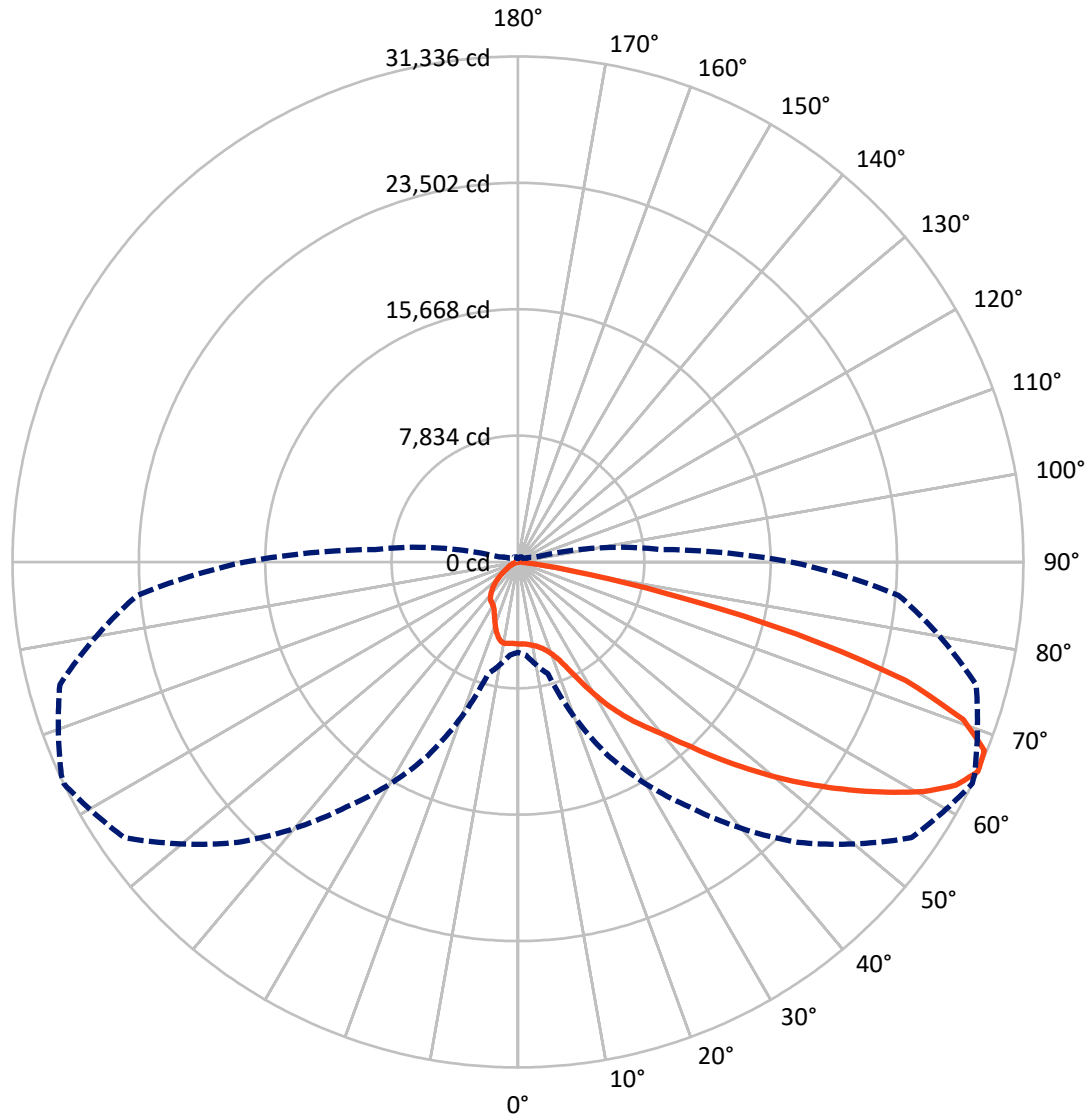
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.8 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
House Side	Lumens	5838.8	0.0	5838.8
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	37822.2	0.0	37822.2
	% Fixture	86.6	0.0	86.6
Total	Lumens	43661.0	0.0	43661.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	468.5	1.1
10°-20°	1270.8	2.9
20°-30°	2408.0	5.5
30°-40°	4872.6	11.2
40°-50°	8300.5	19.0
50°-60°	11288.0	25.9
60°-70°	10600.0	24.3
70°-80°	4246.8	9.7
80°-90°	205.7	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°	43661.0	100.0
0°-180°	43661.0	100.0

Coefficient of Utilization



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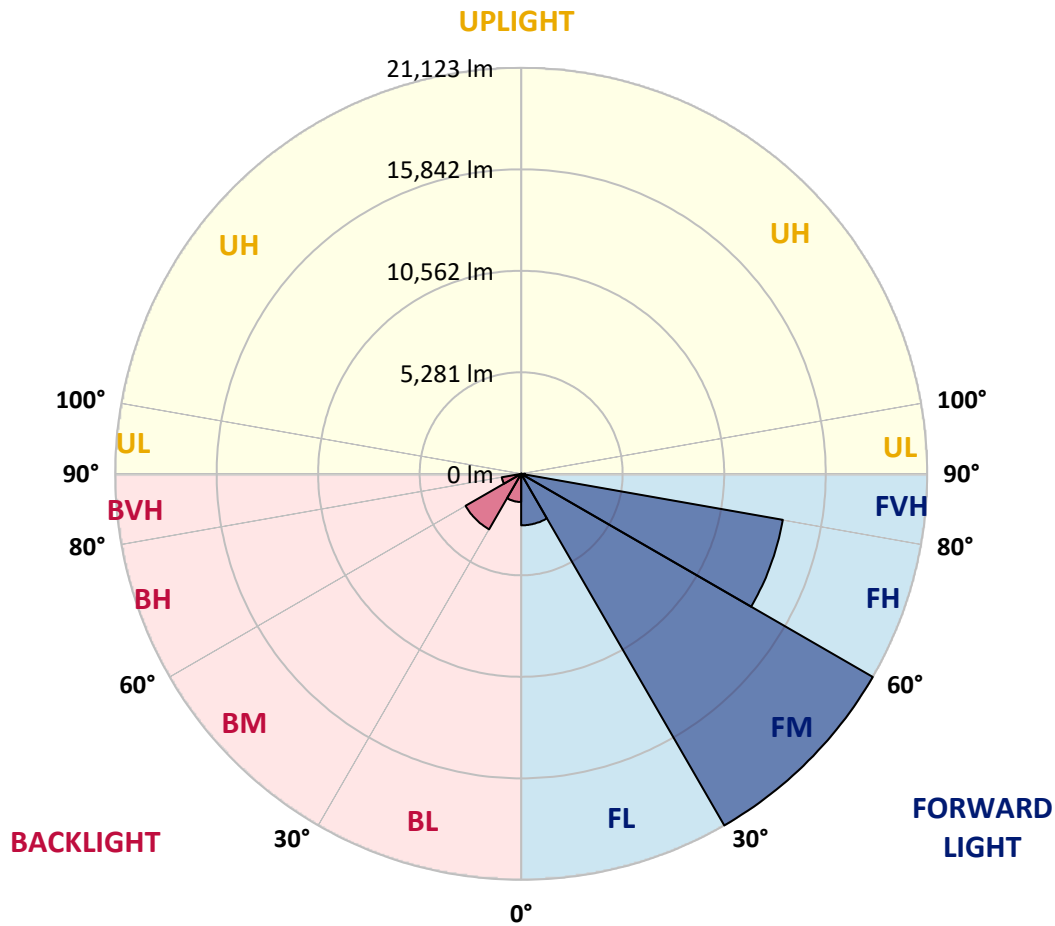
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2681.3	6.1			
FM (30°-60°)	21123.1	48.4			
FH (60°-80°)	13822.1	31.7			G5
FVH (80°-90°)	195.7	0.4			G2/225
BL (0°-30°)	1466.0	3.4	B3/2500		
BM (30°-60°)	3338.0	7.6	B3/5000		
BH (60°-80°)	1024.8	2.3	B3/2500		G3/2500
BVH (80°-90°)	10.1	0.0			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	5078.2	5078.2	5078.2	5078.2	5078.2	5078.2	5078.2	5078.2	5078.2	5078.2	5078.2
2.5°	5060.7	5095.8	5087.0	5078.2	5075.3	5081.2	5084.1	5081.2	5081.2	5081.2	5084.1
5°	4964.1	4993.3	4993.3	5013.8	5043.1	5078.2	5104.6	5110.4	5116.3	5125.1	5122.1
7.5°	4779.7	4803.1	4820.7	4888.0	4961.2	5054.8	5133.8	5174.8	5180.7	5212.9	5224.6
10°	4653.8	4683.1	4712.4	4782.6	4888.0	5028.5	5163.1	5262.6	5277.3	5353.4	5388.5
12.5°	4648.0	4677.2	4715.3	4791.4	4914.3	5063.6	5227.5	5370.9	5397.3	5508.5	5581.7
15°	4709.4	4744.6	4779.7	4873.3	5005.1	5186.5	5362.1	5540.7	5567.0	5725.1	5804.1
17.5°	4835.3	4882.1	4908.5	5002.1	5142.6	5344.6	5575.8	5780.7	5804.1	5988.5	6088.0
20°	5084.1	5139.7	5148.5	5224.6	5362.1	5578.7	5853.9	6108.5	6137.8	6348.5	6459.7
22.5°	5599.2	5678.2	5608.0	5646.1	5769.0	5985.6	6284.1	6606.1	6647.1	6887.1	6986.6
25°	6506.6	6617.8	6436.3	6371.9	6424.6	6650.0	7024.6	7431.5	7478.3	7671.5	7721.2
27.5°	8289.1	8145.7	7870.5	7601.2	7443.2	7572.0	7993.5	8496.9	8555.4	8742.7	8684.2
30°	10247.2	10121.3	9749.6	9152.5	8777.9	8757.4	9146.7	9708.6	9776.0	9954.5	9776.0
32.5°	12208.2	12088.2	11684.3	10949.7	10299.9	9977.9	10247.2	10870.6	10905.8	11019.9	10756.5
35°	14137.1	14014.2	13610.2	12858.0	12059.0	11327.2	11274.5	11977.0	11988.7	12108.7	11716.5
37.5°	16077.6	15975.2	15544.9	14807.4	14020.0	13010.2	12521.4	13024.8	13039.5	13156.6	12749.7
40°	17462.1	17506.0	17210.4	16639.6	15963.5	14860.0	13920.5	14140.0	14052.2	14248.3	14005.4
42.5°	18650.4	18738.2	18480.7	18193.8	17801.6	16829.9	15653.2	15615.2	15474.7	15580.1	15328.3
45°	19677.8	19750.9	19519.7	19452.4	19443.6	18761.6	17547.0	17318.7	17122.6	17102.1	16800.6
47.5°	20055.3	20195.8	20295.3	20520.7	20959.8	20672.9	19505.1	19150.9	18931.4	18770.4	18293.3
50°	20198.8	20348.0	20687.6	21343.2	22382.3	22505.2	21454.4	21056.4	20787.1	20494.4	19791.9
52.5°	20005.6	20271.9	20728.5	21832.0	23339.4	23974.5	23324.7	22976.4	22669.1	22192.0	21150.0
55°	18867.0	19133.4	20067.0	21826.1	23816.4	25004.8	25092.6	24937.5	24592.1	23839.9	22247.6
57.5°	16466.9	16862.1	18340.2	21082.7	23807.7	25891.6	26825.3	26936.6	26550.2	25473.1	23111.1
60°	13141.9	13677.6	15480.5	19434.8	23073.0	26371.7	28344.4	28900.5	28490.8	27082.9	23810.6
62.5°	9170.1	9790.6	11497.0	16853.3	21392.9	26026.3	29453.7	30481.1	30170.8	28523.0	24079.9
65°	5593.4	5792.4	7168.1	13261.9	18536.3	24580.4	29796.2	31335.7	31233.3	29404.0	23681.8
67.5°	3726.0	3892.8	4288.0	9094.0	14388.8	21691.5	28976.6	31186.5	31215.7	29260.5	22224.2
70°	2245.0	2388.4	2645.9	5289.0	9325.2	17169.4	26439.0	29284.0	29453.7	27343.4	19461.2
72.5°	924.9	1021.5	1255.7	2397.2	4829.4	10897.0	21053.4	25142.3	25537.5	22991.1	14936.1
75°	523.9	573.7	737.6	1203.0	2095.7	5078.2	12752.6	17848.4	18430.9	15846.4	8985.7
77.5°	348.3	371.7	477.1	778.6	1179.6	1732.7	5449.9	9298.9	10411.1	8654.9	3889.9
80°	234.2	254.6	327.8	521.0	766.9	743.4	1735.7	3445.0	4238.2	2973.8	948.3
82.5°	158.1	161.0	234.2	342.5	485.9	360.0	512.2	1071.3	1346.4	860.5	360.0
85°	90.7	87.8	172.7	199.0	216.6	149.3	155.1	322.0	421.5	362.9	204.9
87.5°	11.7	17.6	67.3	52.7	29.3	32.2	32.2	55.6	82.0	87.8	43.9
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°	5078.2	5078.2	5078.2	5078.2	5078.2	5078.2	5078.2	5078.2	5078.2	5078.2	5078.2
2.5°	5084.1	5081.2	5072.4	5063.6	5043.1	5031.4	5037.3	5031.4	5028.5	5031.4	5043.1
5°	5122.1	5113.4	5089.9	5060.7	5019.7	4969.9	4937.7	4890.9	4847.0	4820.7	4826.5
7.5°	5224.6	5215.8	5183.6	5101.6	4969.9	4762.1	4571.9	4405.0	4279.2	4206.0	4208.9
10°	5388.5	5373.8	5324.1	5142.6	4797.2	4343.6	3966.0	3652.8	3447.9	3351.3	3342.6
12.5°	5581.7	5564.1	5476.3	5104.6	4469.4	3761.1	3240.1	2891.8	2701.6	2616.7	2607.9
15°	5810.0	5786.5	5613.9	4923.1	3992.3	3117.2	2640.1	2379.6	2256.7	2180.6	2183.5
17.5°	6093.9	6052.9	5716.3	4650.9	3474.3	2625.5	2271.3	2075.2	1966.9	1893.7	1887.9
20°	6462.7	6395.3	5798.3	4326.0	2997.2	2315.2	2022.5	1858.6	1776.6	1712.3	1700.5
22.5°	6977.8	6881.2	5897.8	3974.8	2660.6	2101.5	1838.1	1718.1	1650.8	1577.6	1565.9
25°	7615.9	7501.7	6020.7	3649.9	2429.4	1917.1	1703.5	1604.0	1524.9	1440.1	1431.3
27.5°	8508.6	8303.7	6167.0	3383.5	2230.3	1759.1	1580.5	1469.3	1378.6	1308.3	1293.7
30°	9503.7	9167.2	6295.8	3222.6	2048.9	1612.7	1419.6	1308.3	1223.5	1173.7	1164.9
32.5°	10446.2	9989.6	6380.7	3152.3	1884.9	1445.9	1243.9	1123.9	1059.5	1044.9	1053.7
35°	11336.0	10733.1	6371.9	3085.0	1738.6	1279.1	1071.3	948.3	898.6	907.3	907.3
37.5°	12360.4	11526.3	6310.5	2979.6	1618.6	1126.9	922.0	813.7	769.8	772.7	784.4
40°	13551.7	12442.4	6272.4	2780.6	1486.9	986.4	799.1	711.2	679.0	667.3	664.4
42.5°	14822.0	13329.3	6278.3	2555.2	1323.0	860.5	714.2	641.0	611.7	602.9	600.0
45°	16098.1	14175.1	6287.1	2321.1	1150.3	763.9	652.7	591.2	573.7	562.0	562.0
47.5°	17298.2	14895.2	6123.1	2069.3	980.5	690.8	602.9	562.0	547.3	532.7	532.7
50°	18416.3	15375.2	5728.0	1776.6	845.9	632.2	564.9	535.6	521.0	506.4	506.4
52.5°	19285.6	15451.3	5075.3	1475.2	752.2	588.3	541.5	515.1	497.6	482.9	480.0
55°	19671.9	14974.2	4147.5	1194.2	679.0	550.3	518.1	491.7	471.2	456.6	453.7
57.5°	19572.4	13970.2	3234.3	960.0	608.8	512.2	488.8	471.2	447.8	424.4	421.5
60°	19083.6	12626.8	2438.1	799.1	544.4	471.2	456.6	442.0	409.8	374.6	368.8
62.5°	18237.7	10937.9	1738.6	661.5	474.2	424.4	418.6	406.8	360.0	295.6	289.8
65°	16944.0	8886.2	1170.8	550.3	406.8	371.7	374.6	354.2	292.7	219.5	213.7
67.5°	15053.2	6497.8	749.3	450.7	339.5	310.3	313.2	301.5	248.8	187.3	178.5
70°	12644.3	4302.6	488.8	342.5	272.2	240.0	257.6	260.5	210.7	152.2	146.3
72.5°	9269.6	2540.6	342.5	254.6	199.0	166.8	210.7	216.6	169.8	114.2	108.3
75°	5283.1	1205.9	257.6	184.4	122.9	117.1	163.9	163.9	117.1	76.1	70.2
77.5°	2218.6	503.4	181.5	120.0	70.2	67.3	111.2	102.4	58.5	35.1	35.1
80°	641.0	225.4	96.6	58.5	29.3	26.3	43.9	32.2	14.6	5.9	5.9
82.5°	251.7	99.5	38.1	23.4	11.7	11.7	5.9	0.0	0.0	0.0	0.0
85°	149.3	41.0	17.6	8.8	2.9	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	38.1	8.8	5.9	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)