

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: P969327

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

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P969327
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-15)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5D-740-U-AFL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 4000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 47528.2 lumens
Efficiency: N/A
Efficacy: 130.3 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G4

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

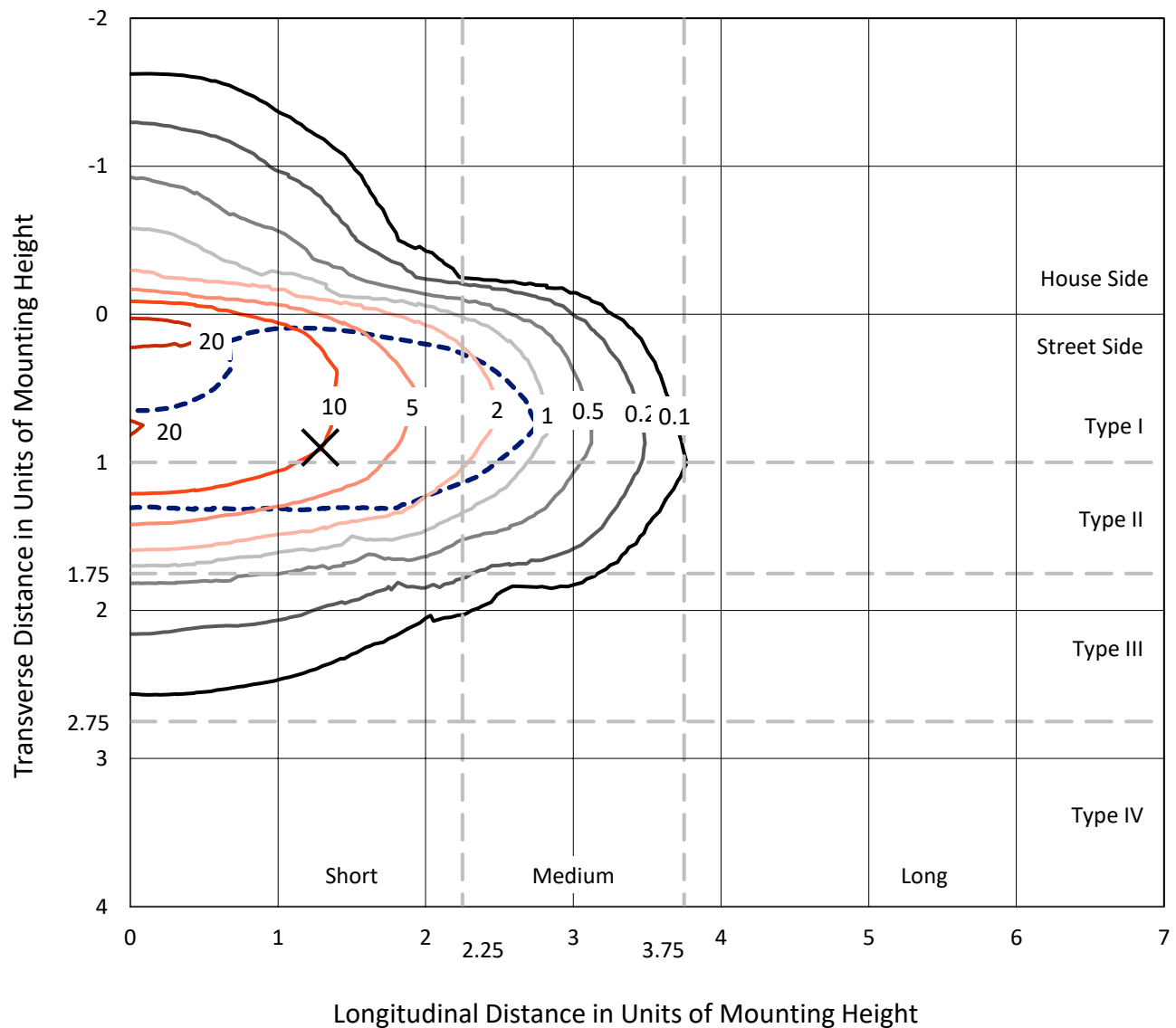


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

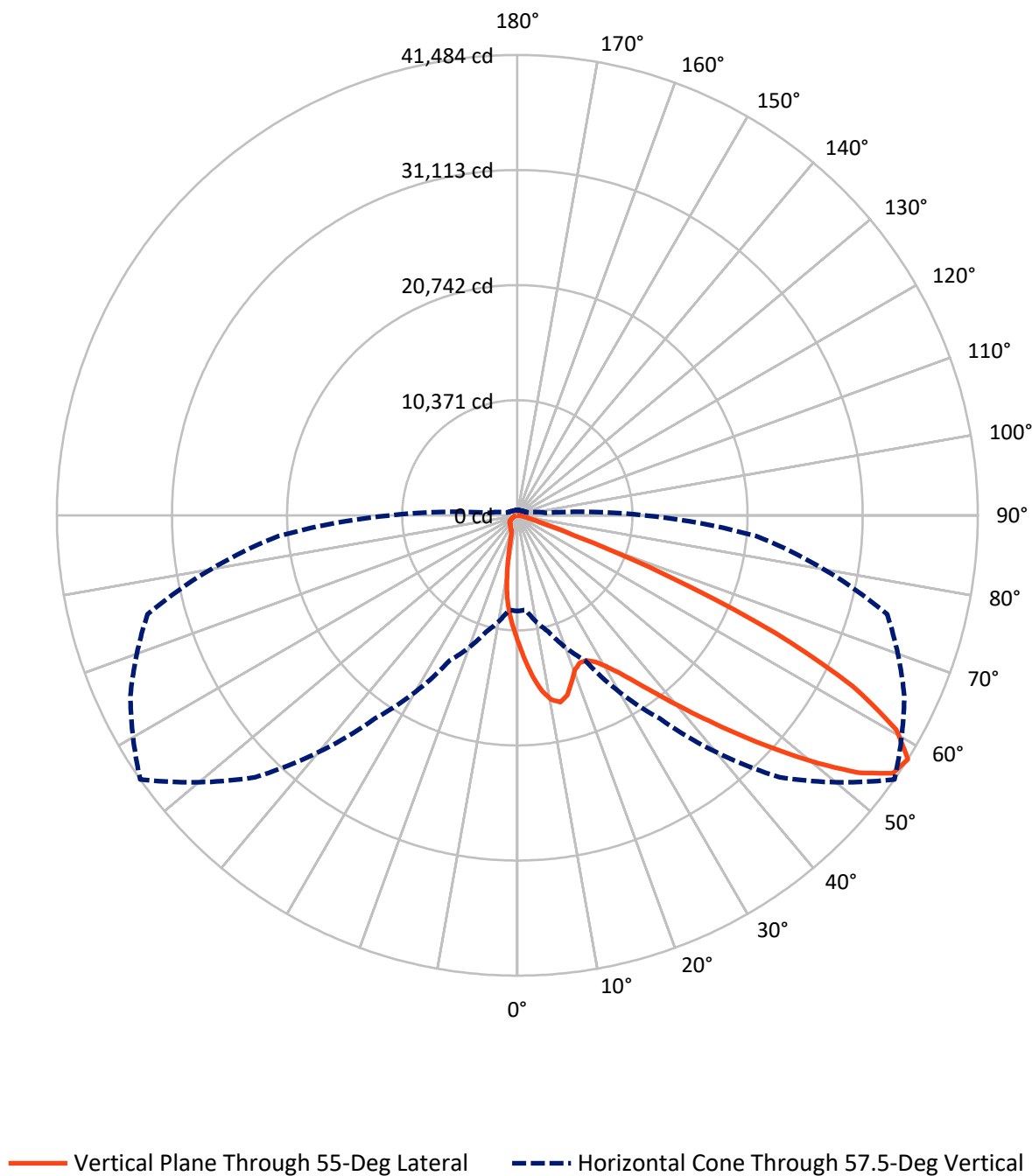


Based on 25 foot mounting height. Maximum calculated value = 26.2 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3711.8	0.0	3711.8
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	43816.5	0.0	43816.5
	% Fixture	92.2	0.0	92.2
Total	Lumens	47528.2	0.0	47528.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1065.6	2.2
10°-20°	2574.1	5.4
20°-30°	4118.5	8.7
30°-40°	6970.8	14.7
40°-50°	11444.6	24.1
50°-60°	12578.4	26.5
60°-70°	7215.0	15.2
70°-80°	1474.2	3.1
80°-90°	87.0	0.2
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°	47528.2	100.0
0°-180°	47528.2	100.0

Coefficient of Utilization



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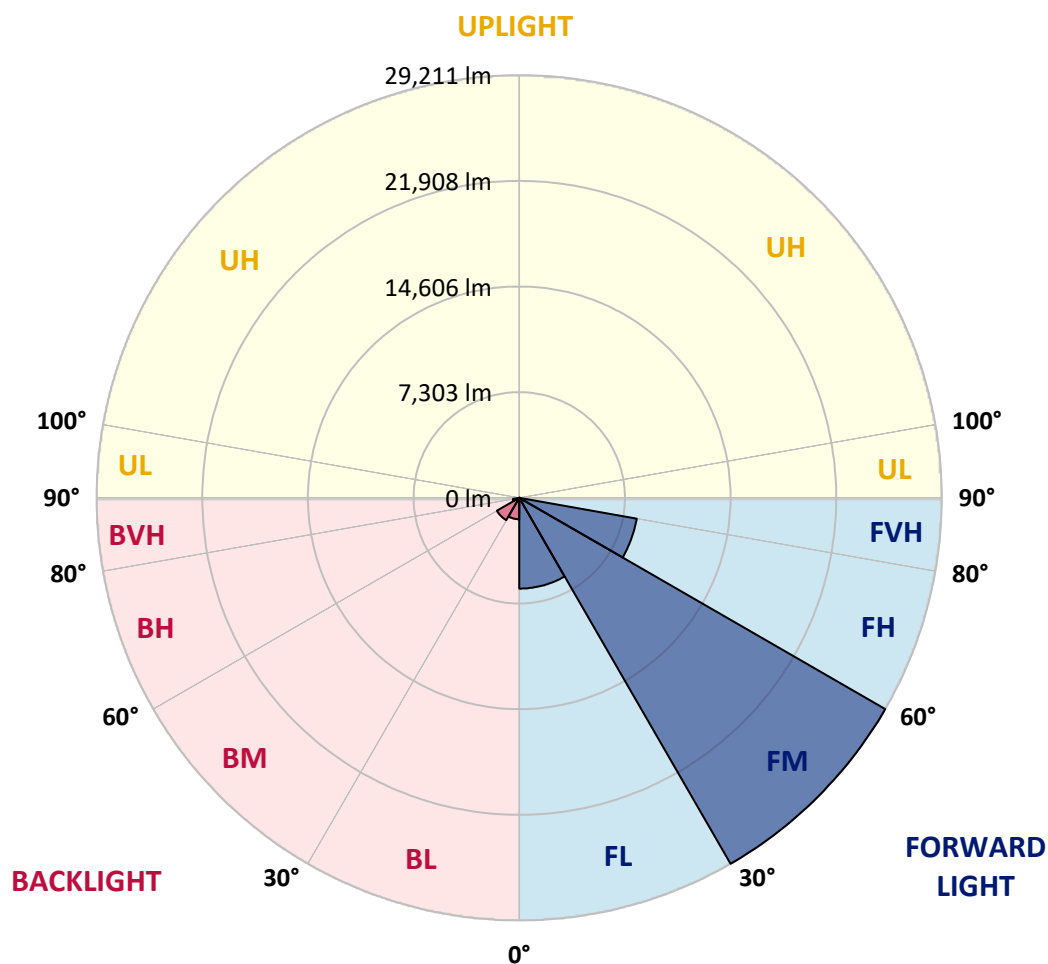
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	6276.4	13.2			
FM	(30°-60°)	29211.2	61.5			
FH	(60°-80°)	8247.8	17.4			G4/12000
FVH	(80°-90°)	81.1	0.2			G1/100
BL	(0°-30°)	1481.8	3.1	B3/2500		
BM	(30°-60°)	1782.6	3.8	B2/2500		
BH	(60°-80°)	441.4	0.9	B1/500		G1/500
BVH	(80°-90°)	5.9	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 II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	11453.1	11453.1	11453.1	11453.1	11453.1	11453.1	11453.1	11453.1	11453.1	11453.1	11453.1
2.5°	14210.9	14032.1	14005.8	13970.5	13630.7	13375.6	13006.4	12602.0	12147.7	11684.7	11479.5
5°	16417.7	16277.0	16250.7	16086.6	15699.7	15265.9	14609.5	13780.1	12933.1	11936.7	11508.8
7.5°	16845.6	16819.2	16939.4	16933.5	16880.7	16537.9	15984.0	14996.4	13724.4	12247.3	11585.1
10°	14937.7	15005.1	15362.7	15676.2	16523.2	17015.6	16895.4	16080.7	14539.1	12602.0	11670.0
12.5°	13199.8	13120.7	13375.6	13730.3	14715.0	16180.3	17273.5	16986.3	15471.1	13003.5	11796.0
15°	12109.6	12077.4	12221.0	12385.1	13135.4	14612.4	16833.9	17721.8	16367.9	13478.2	11986.6
17.5°	11760.8	11734.5	11778.5	11819.5	12305.9	13448.9	15787.7	18173.2	17226.6	14020.5	12197.5
20°	12045.1	12009.9	12004.1	11971.9	12174.1	12953.6	14841.0	18205.4	17997.4	14512.8	12379.2
22.5°	12874.5	12833.5	12689.9	12561.0	12578.5	13021.1	14419.0	17883.1	18577.6	14972.9	12493.5
25°	14378.0	14310.5	14011.6	13577.9	13302.3	13489.9	14483.5	17458.1	19131.5	15333.4	12437.9
27.5°	16259.5	16171.5	15787.7	15142.8	14512.8	14284.2	14949.4	17165.1	19591.6	15608.8	12317.7
30°	18102.8	17988.5	17610.5	17109.4	16189.2	15468.2	15790.5	17294.0	20139.7	15896.0	12159.5
32.5°	20092.8	19984.3	19483.2	18861.9	18100.0	17129.9	16942.3	17924.1	20810.8	16297.6	12048.1
35°	22610.3	22440.3	21728.2	20881.2	20072.3	19090.5	18501.5	19011.4	21704.7	16910.0	12109.6
37.5°	25476.5	25247.9	24480.1	23310.7	22255.6	21156.6	20400.5	20506.0	23014.7	17730.7	12300.1
40°	28178.6	27970.5	27261.3	26159.3	24834.6	23501.2	22695.2	22460.8	24822.9	18730.0	12634.2
42.5°	29799.2	29611.6	29312.7	28846.8	27730.1	26370.4	25353.4	24846.4	26962.3	19925.8	13041.6
45°	29890.1	29726.0	30127.5	30669.6	30449.9	29544.3	28304.6	27375.6	29110.5	21048.2	13463.6
47.5°	28436.5	28325.1	29544.3	31437.5	32381.2	32762.2	31619.2	29693.7	30883.6	21854.1	13636.5
50°	24474.1	24433.1	26941.8	30417.6	33116.8	35581.4	35115.5	31850.7	32258.1	22270.3	13472.4
52.5°	21221.1	21071.6	22534.1	27152.9	32047.0	37064.4	38532.7	33966.7	33219.3	22349.4	13088.4
55°	16095.4	15963.5	17798.1	21690.0	28597.7	36536.9	41032.6	36150.0	33908.0	22147.2	12399.7
57.5°	8633.8	8551.8	10869.9	14436.6	22355.2	33371.7	41483.9	38459.4	34488.4	21610.9	11435.5
60°	3361.5	3346.8	4214.3	7004.3	13586.7	27149.9	39206.8	39845.6	34851.7	20951.5	10629.6
62.5°	2033.9	2077.9	2218.5	3144.6	6002.1	16866.1	33957.8	38268.9	35095.0	20347.8	9964.3
65°	1682.2	1685.1	1702.7	2159.9	2875.0	7057.1	25564.4	33081.6	34494.2	19272.3	9020.6
67.5°	1441.9	1468.3	1535.7	1714.4	2028.1	3094.8	14717.9	25625.9	30839.6	16769.4	7549.4
70°	1137.1	1172.3	1257.3	1409.7	1565.0	1937.1	5439.4	17050.8	23559.8	12640.1	5708.9
72.5°	958.4	955.4	999.4	1145.9	1242.6	1362.7	2092.5	9554.0	13692.2	6034.3	2825.2
75°	741.5	770.8	826.5	958.4	1016.9	987.7	1134.2	3490.4	4906.0	1828.7	961.2
77.5°	580.3	603.7	653.5	782.5	841.1	700.5	653.5	1248.4	1576.8	656.5	433.8
80°	260.9	281.4	445.5	577.4	685.8	483.6	354.6	638.9	700.5	298.9	219.8
82.5°	46.8	79.1	260.9	304.8	351.7	313.5	184.6	331.2	342.9	120.1	76.2
85°	3.0	5.8	90.8	111.3	140.6	102.6	55.7	131.9	114.3	41.0	29.3
87.5°	0.0	0.0	0.0	3.0	3.0	14.7	17.6	23.5	17.6	14.7	11.7
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	11453.1	11453.1	11453.1	11453.1	11453.1	11453.1	11453.1	11453.1	11453.1	11453.1
2.5°	11268.5	10852.3	10447.9	10116.8	9923.3	9595.0	9378.2	9343.1	9252.2	9331.3
5°	11051.7	10307.2	9554.0	8880.0	8326.1	7611.0	7077.6	6851.9	6655.6	6723.0
7.5°	10949.0	9773.9	8601.6	7449.8	6265.8	5122.8	4272.9	3918.4	3648.7	3686.8
10°	10811.3	9220.0	7382.4	5624.0	4038.5	2910.2	2324.1	2107.2	1987.0	1989.9
12.5°	10705.8	8557.6	5966.8	3812.8	2458.9	1858.0	1676.4	1623.6	1588.4	1591.4
15°	10653.0	7778.0	4568.9	2540.9	1758.4	1573.8	1529.8	1506.3	1483.0	1480.0
17.5°	10565.1	6910.6	3344.0	1855.1	1538.6	1474.2	1436.0	1409.7	1380.4	1374.5
20°	10433.3	5925.8	2444.2	1567.9	1441.9	1392.1	1339.4	1304.1	1268.9	1263.1
22.5°	10190.0	4885.5	1878.6	1450.7	1371.6	1315.9	1251.4	1210.4	1175.2	1169.3
25°	9738.6	3909.6	1582.6	1377.4	1310.1	1242.6	1172.3	1116.6	1084.3	1078.5
27.5°	9167.2	3071.4	1436.0	1310.1	1230.9	1169.3	1090.2	1037.5	1008.2	1002.2
30°	8493.2	2365.1	1351.1	1233.8	1137.1	1084.3	1014.0	970.1	952.4	952.4
32.5°	7766.3	1890.3	1315.9	1157.6	1055.0	996.4	940.7	923.2	917.3	914.4
35°	7083.5	1641.2	1298.3	1096.0	981.7	926.1	902.6	905.6	917.3	917.3
37.5°	6476.9	1562.1	1289.6	1052.2	917.3	867.5	882.1	908.6	896.8	896.8
40°	5928.8	1570.8	1283.6	1019.9	864.6	835.3	864.6	844.1	814.8	811.8
42.5°	5509.7	1644.1	1271.9	993.5	832.3	811.8	800.1	767.8	765.0	770.8
45°	5205.0	1708.6	1268.9	981.7	797.1	759.0	744.4	712.2	770.8	785.5
47.5°	4844.5	1708.6	1268.9	940.7	738.5	723.9	700.5	665.2	723.9	738.5
50°	4378.5	1600.1	1219.1	893.9	691.7	682.9	641.9	597.9	586.1	594.9
52.5°	3789.4	1403.8	1093.2	829.4	644.7	627.2	577.4	545.1	536.3	536.3
55°	3118.3	1175.2	923.2	735.6	594.9	562.7	527.6	512.9	504.1	498.3
57.5°	2535.0	964.2	741.5	653.5	548.1	507.0	495.3	477.8	463.1	454.3
60°	2080.8	759.0	612.5	580.3	501.1	463.1	460.1	436.6	398.6	392.7
62.5°	1606.0	556.8	515.8	504.1	454.3	422.0	416.2	369.3	310.7	298.9
65°	1134.2	433.8	416.2	442.5	404.5	375.2	360.5	290.2	228.6	219.8
67.5°	797.1	363.4	328.2	386.8	351.7	313.5	304.8	246.2	190.4	184.6
70°	568.6	296.0	269.6	331.2	281.4	275.5	257.9	205.1	155.3	149.4
72.5°	401.5	225.7	208.1	287.2	193.4	237.4	211.0	158.3	117.3	111.3
75°	296.0	161.2	146.6	167.1	140.6	178.8	149.4	105.5	73.3	70.3
77.5°	216.9	102.6	87.9	82.1	82.1	111.3	82.1	44.0	32.3	29.3
80°	152.4	46.8	41.0	35.2	32.3	26.3	11.7	5.8	3.0	3.0
82.5°	90.8	20.5	20.5	14.7	8.8	0.0	0.0	0.0	0.0	0.0
85°	20.5	8.8	8.8	3.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.0	3.0	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

(END OF REPORT)