

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: P967172

Luminaire Tested: **NAV-SB4D-730-U-T2R-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967172
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-4)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4D-730-U-T2R-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 35393.2 lumens
Efficiency: N/A
Efficacy: 120.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G4

Input Watts (W): 293.6
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

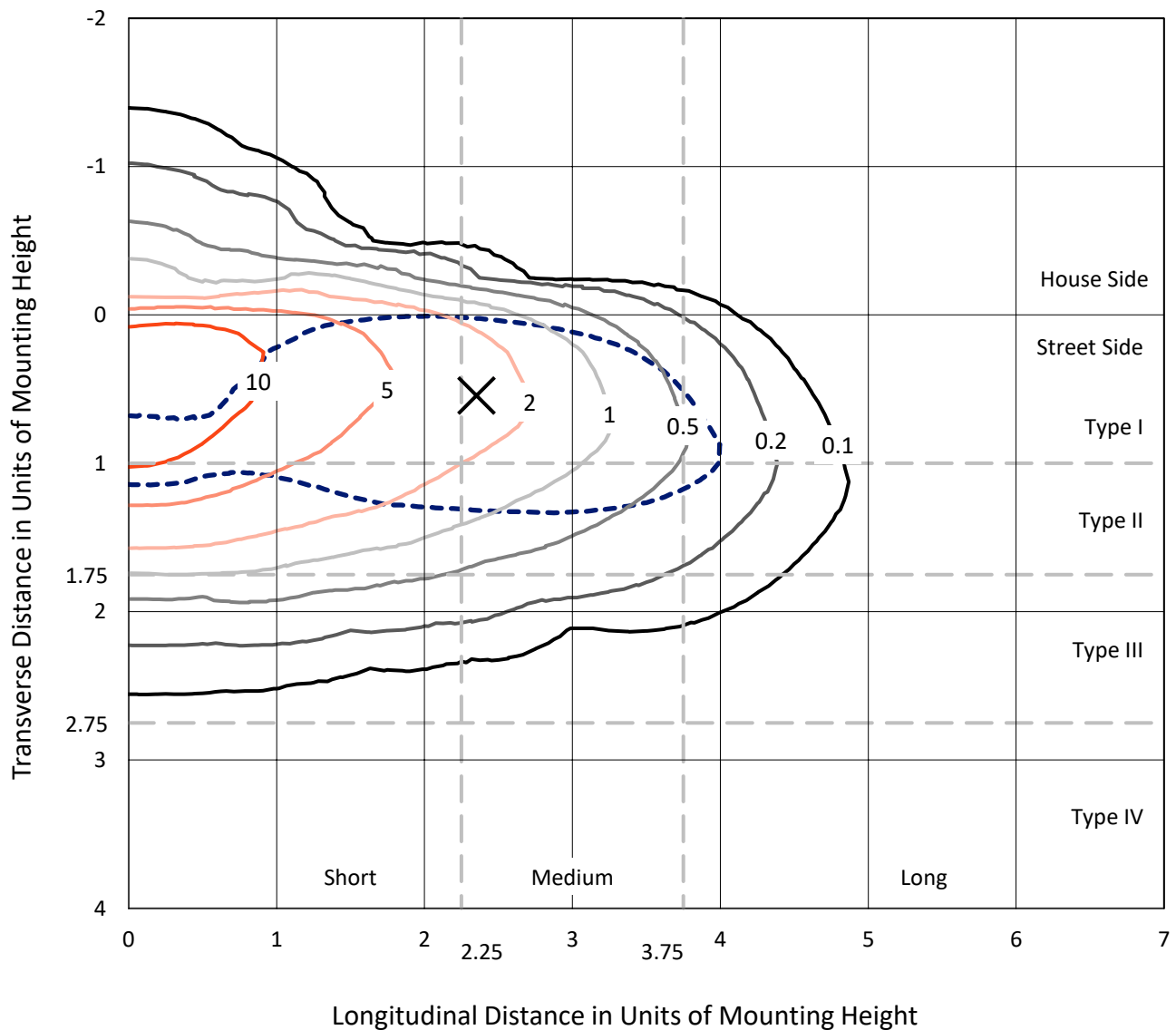


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Iso-Footcandle Lines of Horizontal Illumination

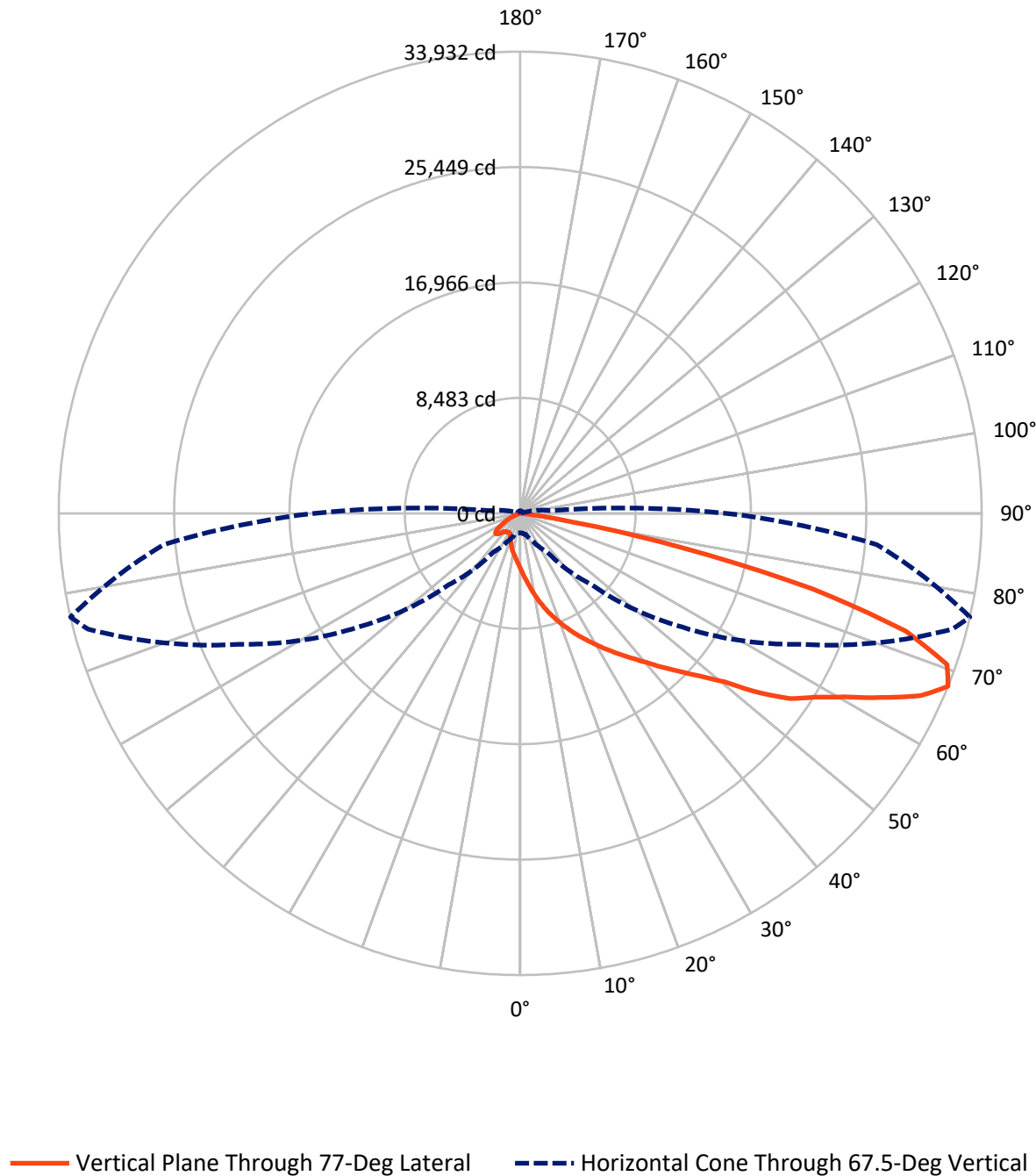
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 15.3 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2603.9	0.0	2603.9
	% Fixture	7.4	0.0	7.4
Street Side	Lumens	32789.3	0.0	32789.3
	% Fixture	92.6	0.0	92.6
Total	Lumens	35393.2	0.0	35393.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	416.6	1.2
10°-20°	1458.8	4.1
20°-30°	2815.0	8.0
30°-40°	4887.1	13.8
40°-50°	7095.8	20.0
50°-60°	8148.6	23.0
60°-70°	7074.5	20.0
70°-80°	3332.2	9.4
80°-90°	164.8	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°	35393.2	100.0
0°-180°	35393.2	100.0

Coefficient of Utilization



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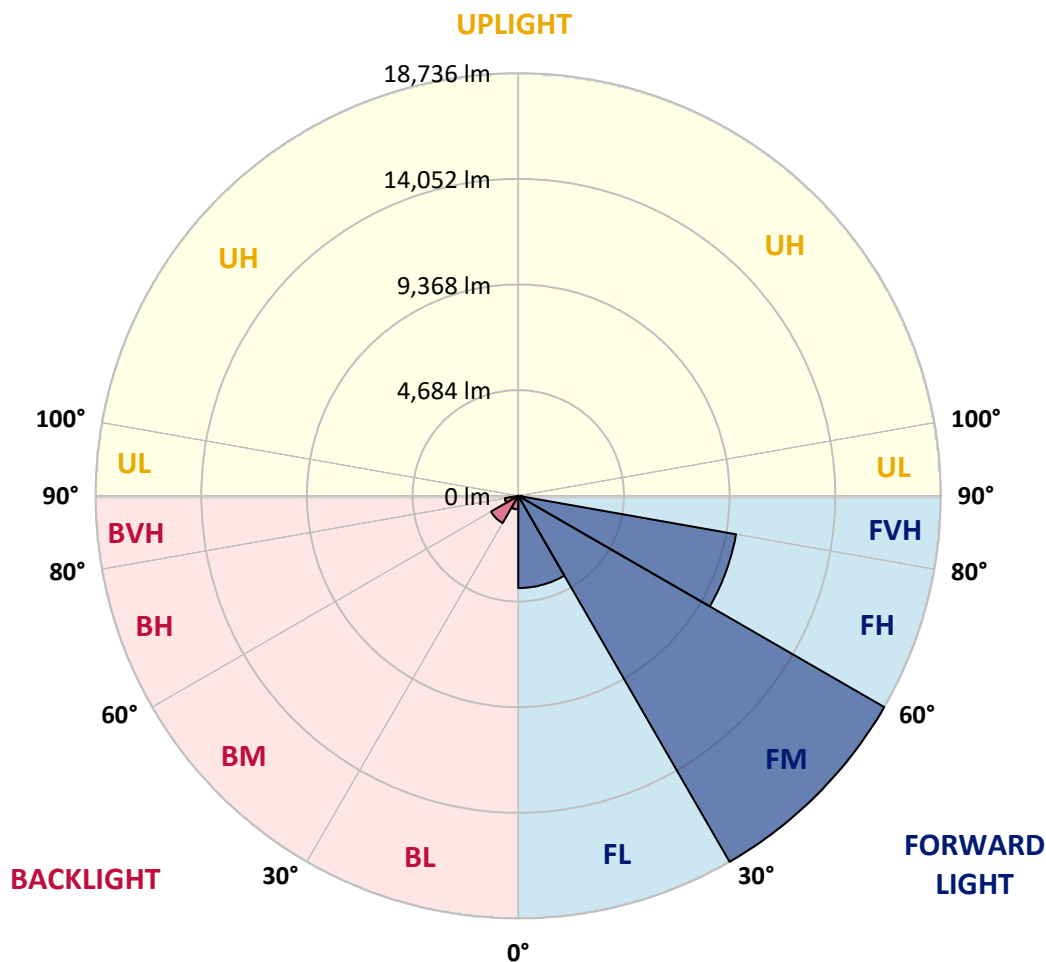
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4087.5	11.5			
FM	(30°-60°)	18736.2	52.9			
FH	(60°-80°)	9803.8	27.7			G4/12000
FVH	(80°-90°)	161.8	0.5			G2/225
BL	(0°-30°)	602.8	1.7	B2/1000		
BM	(30°-60°)	1395.2	3.9	B2/2500		
BH	(60°-80°)	602.8	1.7	B2/1000		G2/1000
BVH	(80°-90°)	3.0	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G4

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	4081.3	4081.3	4081.3	4081.3	4081.3	4081.3	4081.3	4081.3	4081.3	4081.3	4081.3
2.5°	5650.6	5685.8	5635.2	5538.5	5393.4	5298.9	5068.2	4850.6	4608.8	4531.9	4290.1
5°	6888.0	6918.7	6861.7	6756.1	6562.7	6378.1	6074.8	5619.9	5147.3	4995.6	4567.1
7.5°	7804.5	7822.1	7800.0	7703.4	7518.8	7310.0	6971.5	6433.0	5731.9	5564.9	4907.7
10°	8463.8	8520.9	8514.4	8477.1	8354.0	8184.7	7824.2	7211.1	6386.9	6171.5	5292.4
12.5°	8901.2	8965.0	9002.3	9085.8	9079.2	8971.5	8655.0	8006.7	7039.6	6786.9	5725.3
15°	9028.7	9096.8	9239.7	9433.1	9604.5	9659.4	9437.5	8786.9	7758.3	7435.2	6169.3
17.5°	8956.1	9061.6	9233.1	9538.5	9914.4	10162.8	10138.6	9540.8	8411.0	8041.8	6604.5
20°	9116.6	9217.7	9351.8	9608.9	10046.2	10496.8	10677.0	10261.7	9059.5	8672.6	7061.6
22.5°	10004.5	9986.9	10000.1	10041.8	10303.4	10749.6	11121.0	10916.6	9701.2	9305.6	7545.1
25°	11411.1	11332.0	11197.9	10971.5	10905.6	11121.0	11507.8	11496.8	10378.1	9954.0	8039.7
27.5°	13024.3	13011.1	12696.9	12151.8	11844.1	11760.5	11945.1	12061.7	11048.5	10595.7	8536.4
30°	14569.4	14604.5	14180.4	13573.8	13008.9	12681.4	12514.4	12598.0	11729.8	11288.0	9048.5
32.5°	15914.5	15951.8	15490.3	14780.4	14081.4	13685.9	13334.2	13127.6	12472.6	11991.4	9611.1
35°	17050.8	17088.1	16558.5	15773.8	15028.8	14670.5	14272.7	13707.8	13219.9	12771.6	10237.5
37.5°	18066.1	18055.2	17345.3	16554.1	15822.1	15538.6	15329.8	14422.2	13989.2	13556.1	10932.0
40°	18666.2	18712.3	18105.7	17233.1	16523.2	16316.7	16303.4	15307.9	14877.1	14457.3	11692.5
42.5°	18842.0	18923.2	18483.7	17767.2	17123.2	16899.1	17244.2	16266.1	15910.0	15501.3	12551.7
45°	18525.4	18604.6	18404.6	17907.9	17532.0	17387.0	18052.9	17259.6	17013.4	16609.0	13521.0
47.5°	17602.4	17701.2	17749.6	17644.1	17639.7	17787.0	18778.2	18305.7	18323.3	17910.0	14644.1
50°	15815.5	15982.6	16426.5	16800.2	17378.2	18103.4	19483.7	19439.7	19800.2	19444.1	16107.9
52.5°	12567.2	12804.5	14334.2	15356.2	16655.1	18044.1	20259.5	21259.5	22391.4	21870.5	18171.6
55°	10099.0	10099.0	11343.0	13255.1	15244.1	17653.0	20598.0	22442.0	24156.3	24033.2	19624.3
57.5°	8233.0	8331.9	9125.4	10815.5	13202.3	16721.0	20806.8	23184.9	25578.3	25488.2	21044.2
60°	5081.3	5294.5	6793.5	8461.6	10879.2	15061.7	20675.0	23936.5	27303.5	27376.1	22754.1
62.5°	2861.6	2940.7	3608.8	6088.0	8459.4	12830.9	19666.2	24356.3	29510.2	29817.9	24516.8
65°	1975.9	2015.4	2272.5	3789.0	5863.8	10215.5	17694.7	24094.8	31721.2	32343.2	26011.2
67.5°	1435.2	1455.0	1615.4	2314.3	3479.2	7406.6	14604.5	22776.1	32892.7	33932.2	26297.0
70°	1103.3	1116.5	1233.0	1520.9	2054.9	4571.5	10606.7	20154.1	32044.3	33286.1	24833.2
72.5°	896.7	909.9	1000.0	1125.2	1362.6	2703.3	6428.6	16367.2	28299.2	29639.9	21140.9
75°	756.0	773.7	855.0	936.2	1068.2	1736.2	3015.4	11397.9	21281.6	22160.7	14701.3
77.5°	419.7	386.8	694.5	775.8	901.1	1098.9	1411.0	6707.8	11918.8	12162.8	6523.1
80°	261.6	270.3	551.7	624.2	692.3	553.8	646.2	2582.5	4131.9	3925.3	1263.7
82.5°	15.4	35.2	424.1	450.6	474.8	237.4	244.0	876.9	995.6	914.3	224.2
85°	0.0	0.0	193.4	156.0	164.8	68.2	70.3	204.4	134.1	145.0	44.0
87.5°	0.0	0.0	0.0	4.4	0.0	6.6	13.2	17.6	6.6	8.8	15.4
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°	4081.3	4081.3	4081.3	4081.3	4081.3	4081.3	4081.3	4081.3	4081.3	4081.3	4081.3
2.5°	4136.3	3982.4	3670.3	3364.9	3116.5	2885.8	2720.9	2564.9	2485.7	2481.3	2476.9
5°	4261.5	3938.5	3314.3	2762.7	2318.8	1962.7	1731.8	1567.0	1483.5	1455.0	1450.6
7.5°	4437.4	3951.7	3002.2	2235.2	1712.1	1406.6	1274.7	1222.0	1204.4	1184.6	1180.2
10°	4659.3	3982.4	2723.1	1800.0	1349.5	1195.7	1142.9	1120.9	1107.7	1094.5	1090.1
12.5°	4907.7	4011.0	2446.2	1494.6	1186.8	1107.7	1070.3	1044.0	1026.4	1011.0	1006.7
15°	5149.5	4028.7	2158.2	1281.4	1103.3	1039.6	1000.0	971.4	947.3	929.7	927.5
17.5°	5389.0	4052.7	1887.9	1153.8	1035.1	971.4	931.8	896.7	876.9	857.1	855.0
20°	5655.0	4048.4	1633.0	1063.7	967.1	903.3	861.5	828.6	808.8	786.8	784.6
22.5°	5901.1	4026.4	1408.8	986.9	896.7	835.2	789.0	756.0	736.3	718.7	716.5
25°	6184.6	4008.9	1222.0	916.5	830.8	769.3	718.7	687.9	665.9	650.6	648.3
27.5°	6457.2	3982.4	1085.7	852.8	767.0	707.7	659.4	624.2	604.4	593.4	593.4
30°	6725.3	3975.9	1035.1	791.2	709.9	650.6	602.2	569.3	553.8	549.5	547.2
32.5°	7048.4	3993.4	1057.2	769.3	657.1	597.8	551.7	527.5	512.1	512.1	512.1
35°	7393.5	3989.1	1090.1	789.0	622.0	545.1	509.9	494.5	479.1	479.1	479.1
37.5°	7826.5	3995.7	1116.5	821.9	608.7	501.1	481.3	461.6	452.7	452.7	452.7
40°	8472.6	4213.3	1103.3	850.5	604.4	470.4	430.8	424.1	417.6	417.6	417.6
42.5°	9263.8	4685.8	1120.9	852.8	602.2	448.3	395.6	408.8	393.4	391.2	389.0
45°	10129.8	5202.3	1233.0	806.6	600.0	437.4	378.0	393.4	369.2	369.2	369.2
47.5°	10989.1	5714.4	1347.3	740.7	593.4	435.2	362.6	353.8	347.3	349.4	349.4
50°	12173.7	6132.0	1391.2	650.6	578.0	430.8	334.0	336.3	331.9	336.3	336.3
52.5°	13463.9	6219.8	1338.4	549.5	534.0	417.6	314.3	323.1	320.9	325.2	325.2
55°	14268.3	6125.3	1105.5	457.2	466.0	364.8	294.5	312.1	312.1	312.1	312.1
57.5°	15099.1	5723.1	784.6	371.5	386.8	298.9	277.0	301.1	298.9	296.7	296.7
60°	15696.8	5072.6	516.5	305.4	307.7	246.2	257.2	283.5	281.4	270.3	270.3
62.5°	16143.0	4353.9	331.9	259.3	235.1	222.0	235.1	257.2	248.4	224.2	219.8
65°	16092.5	3358.3	254.9	222.0	193.4	193.4	204.4	224.2	197.8	158.3	153.9
67.5°	15154.0	2272.5	210.9	186.9	162.7	160.4	169.2	186.9	169.2	134.1	129.7
70°	13477.1	1485.7	169.2	145.0	129.7	118.7	136.2	160.4	142.9	107.7	103.3
72.5°	10938.6	905.5	127.5	105.5	94.5	76.9	107.7	131.9	114.3	79.1	74.7
75°	7077.0	461.6	87.9	68.2	50.5	46.1	79.1	98.9	79.1	48.4	41.7
77.5°	2707.7	193.4	48.4	30.7	26.3	21.9	44.0	59.3	33.0	11.0	8.8
80°	520.9	81.3	24.2	15.4	13.2	8.8	6.6	4.4	0.0	0.0	0.0
82.5°	90.1	26.3	8.8	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	30.7	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	11.0	0.0	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)