

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: P967854

Luminaire Tested: **NAV-SB5A-827-U-T2R-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967854
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-SB5A-827-U-T2R-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 2700K, 350mA 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: 17100.1 lumens
Efficiency: N/A
Efficacy: 120.7 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G2

Input Watts (W): 141.7
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

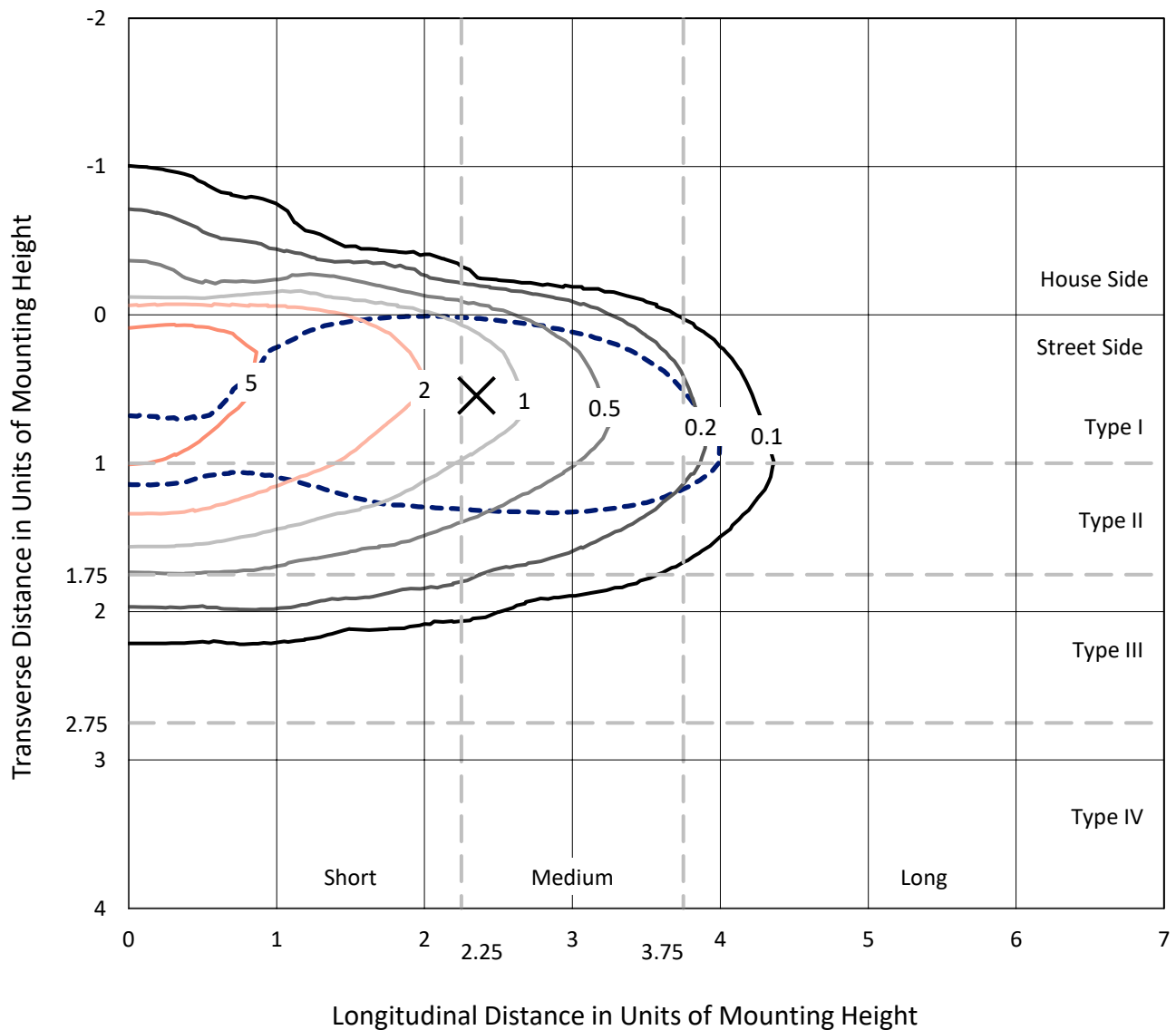


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Iso-Footcandle Lines of Horizontal Illumination

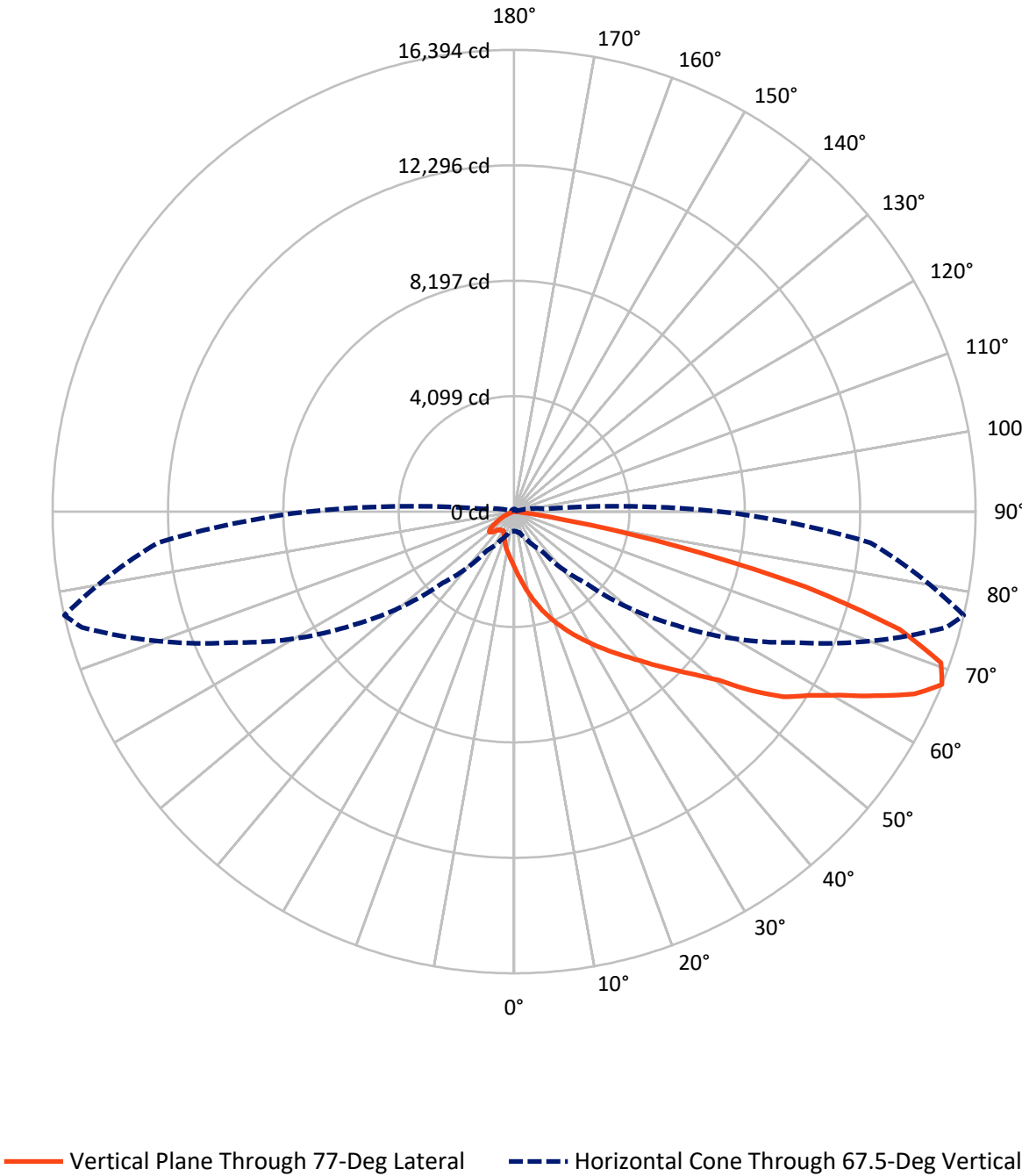
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.4 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	1258.1	0.0	1258.1
	% Fixture	7.4	0.0	7.4
Street Side	Lumens	15842.0	0.0	15842.0
	% Fixture	92.6	0.0	92.6
Total	Lumens	17100.1	0.0	17100.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	201.3	1.2
10°-20°	704.8	4.1
20°-30°	1360.1	8.0
30°-40°	2361.2	13.8
40°-50°	3428.3	20.0
50°-60°	3936.9	23.0
60°-70°	3418.0	20.0
70°-80°	1609.9	9.4
80°-90°	79.6	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°	17100.1	100.0
0°-180°	17100.1	100.0

Coefficient of Utilization



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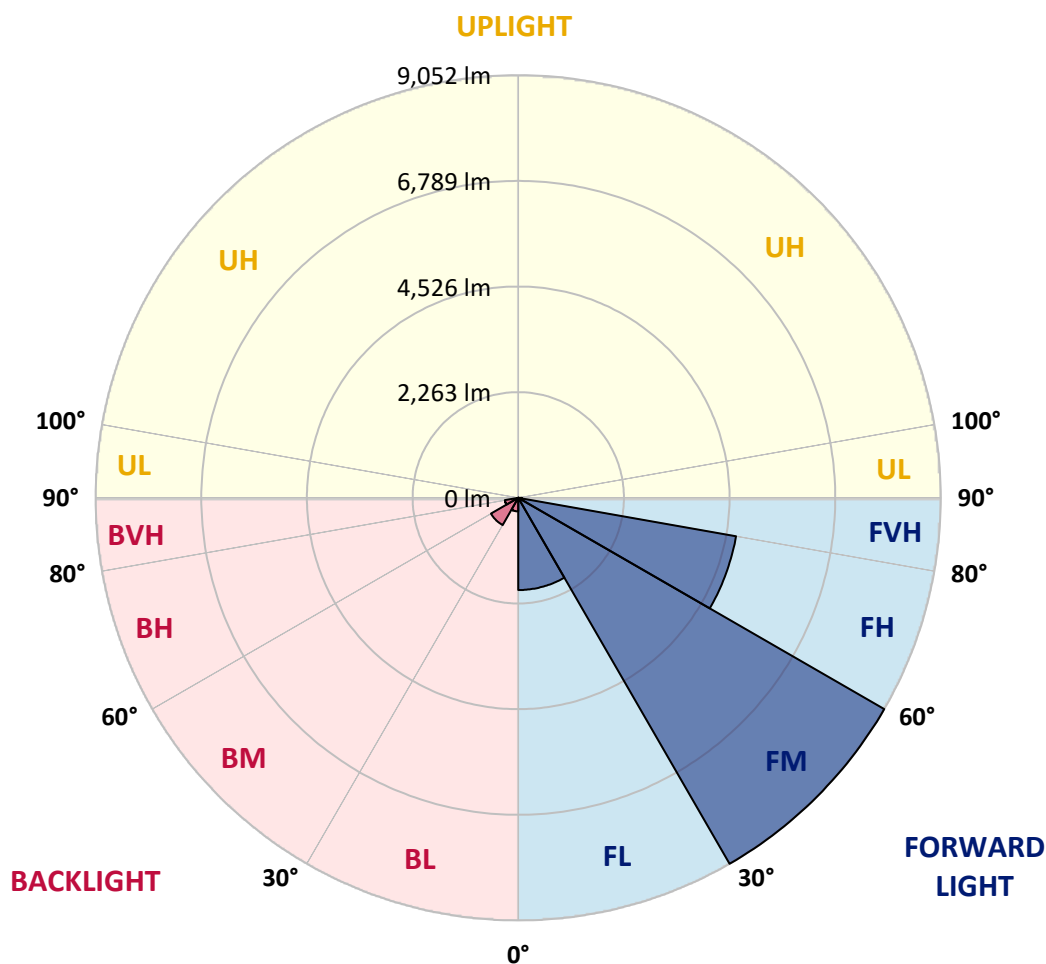
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1974.9	11.5			
FM	(30°-60°)	9052.3	52.9			
FH	(60°-80°)	4736.7	27.7			G2/5000
FVH	(80°-90°)	78.2	0.5			G1/100
BL	(0°-30°)	291.3	1.7	B1/500		
BM	(30°-60°)	674.1	3.9	B1/1000		
BH	(60°-80°)	291.3	1.7	B1/500		G1/500
BVH	(80°-90°)	1.5	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	1971.9	1971.9	1971.9	1971.9	1971.9	1971.9	1971.9	1971.9	1971.9	1971.9	1971.9
2.5°	2730.1	2747.1	2722.6	2675.9	2605.9	2560.1	2448.6	2343.6	2226.7	2189.6	2072.8
5°	3327.9	3342.7	3315.2	3264.2	3170.7	3081.6	2935.0	2715.2	2486.9	2413.7	2206.5
7.5°	3770.7	3779.2	3768.6	3721.9	3632.7	3531.7	3368.3	3108.1	2769.3	2688.7	2371.1
10°	4089.2	4116.9	4113.6	4095.6	4036.1	3954.3	3780.3	3484.0	3085.8	2981.7	2557.0
12.5°	4300.6	4331.3	4349.4	4389.8	4386.6	4334.5	4181.6	3868.3	3401.2	3279.1	2766.2
15°	4362.2	4395.1	4464.1	4557.6	4640.4	4666.9	4559.7	4245.3	3748.4	3592.3	2980.7
17.5°	4327.1	4378.1	4460.9	4608.5	4790.1	4910.1	4898.4	4609.5	4063.8	3885.4	3190.9
20°	4404.6	4453.5	4518.2	4642.5	4853.8	5071.5	5158.5	4957.8	4377.1	4190.1	3411.8
22.5°	4833.6	4825.1	4831.5	4851.6	4978.0	5193.6	5373.0	5274.3	4687.1	4496.0	3645.4
25°	5513.3	5475.0	5410.3	5300.9	5269.0	5373.0	5559.9	5554.7	5014.1	4809.2	3884.3
27.5°	6292.7	6286.2	6134.4	5871.1	5722.4	5682.1	5771.3	5827.5	5338.0	5119.3	4124.3
30°	7039.1	7056.1	6851.2	6558.1	6285.2	6126.9	6046.3	6086.7	5667.2	5453.7	4371.7
32.5°	7689.0	7707.1	7484.0	7141.1	6803.4	6612.3	6442.3	6342.5	6026.1	5793.5	4643.6
35°	8238.0	8256.1	8000.1	7621.1	7261.1	7088.0	6895.8	6622.8	6387.2	6170.5	4946.1
37.5°	8728.6	8723.3	8380.3	7998.0	7644.3	7507.4	7406.5	6968.0	6758.7	6549.6	5281.7
40°	9018.5	9040.7	8747.7	8326.1	7983.1	7883.3	7876.9	7395.9	7187.8	6985.0	5649.2
42.5°	9103.4	9142.7	8930.3	8584.2	8273.0	8164.7	8331.4	7858.9	7686.9	7489.4	6064.3
45°	8950.5	8988.7	8892.1	8652.1	8470.5	8400.5	8722.2	8338.9	8219.9	8024.5	6532.6
47.5°	8504.5	8552.3	8575.7	8524.7	8522.6	8593.7	9072.6	8844.3	8852.8	8653.2	7075.3
50°	7641.2	7721.9	7936.4	8116.9	8396.2	8746.6	9413.5	9392.2	9566.3	9394.3	7782.4
52.5°	6071.8	6186.5	6925.5	7419.3	8046.9	8717.9	9788.3	10271.4	10818.4	10566.6	8779.5
55°	4879.3	4879.3	5480.3	6404.1	7365.1	8528.9	9951.8	10842.8	11671.0	11611.5	9481.5
57.5°	3977.7	4025.6	4408.8	5225.4	6378.7	8078.7	10052.7	11201.6	12358.0	12314.5	10167.4
60°	2455.1	2558.1	3282.3	4088.2	5256.2	7277.0	9989.0	11564.8	13191.5	13226.6	10993.5
62.5°	1382.5	1420.8	1743.6	2941.3	4087.1	6199.2	9501.6	11767.6	14257.7	14406.4	11845.1
65°	954.6	973.7	1098.0	1830.6	2833.1	4935.6	8549.1	11641.2	15325.9	15626.4	12567.2
67.5°	693.4	702.9	780.4	1118.2	1680.9	3578.5	7056.1	11004.2	15891.9	16394.2	12705.3
70°	533.1	539.5	595.7	734.8	992.8	2208.7	5124.6	9737.3	15482.0	16082.0	11998.0
72.5°	433.3	439.6	483.2	543.7	658.4	1306.1	3106.0	7907.8	13672.6	14320.4	10214.1
75°	365.3	373.8	413.1	452.3	516.1	838.9	1456.8	5506.8	10282.1	10706.8	7102.8
77.5°	202.8	186.9	335.6	374.8	435.3	530.9	681.7	3240.8	5758.6	5876.4	3151.7
80°	126.4	130.6	266.5	301.6	334.5	267.6	312.2	1247.7	1996.3	1896.5	610.6
82.5°	7.5	17.0	204.9	217.7	229.4	114.7	117.9	423.7	481.0	441.8	108.3
85°	0.0	0.0	93.5	75.4	79.6	32.9	34.0	98.7	64.8	70.1	21.2
87.5°	0.0	0.0	0.0	2.2	0.0	3.2	6.4	8.5	3.2	4.2	7.5
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°	1971.9	1971.9	1971.9	1971.9	1971.9	1971.9	1971.9	1971.9	1971.9	1971.9	1971.9
2.5°	1998.4	1924.1	1773.4	1625.8	1505.7	1394.2	1314.6	1239.2	1201.0	1198.8	1196.7
5°	2058.9	1902.9	1601.3	1334.8	1120.2	948.2	836.7	757.1	716.8	702.9	700.8
7.5°	2143.9	1909.3	1450.5	1079.9	827.2	679.6	615.9	590.4	581.9	572.4	570.2
10°	2251.2	1924.1	1315.7	869.7	652.0	577.7	552.2	541.5	535.2	528.8	526.6
12.5°	2371.1	1937.9	1181.8	722.1	573.4	535.2	517.1	504.4	495.9	488.4	486.4
15°	2488.0	1946.4	1042.7	619.1	533.1	502.2	483.2	469.3	457.7	449.2	448.1
17.5°	2603.7	1958.1	912.1	557.5	500.1	469.3	450.3	433.3	423.7	414.1	413.1
20°	2732.1	1956.0	788.9	513.9	467.2	436.4	416.3	400.4	390.7	380.2	379.0
22.5°	2851.1	1945.3	680.7	476.8	433.3	403.5	381.2	365.3	355.7	347.3	346.1
25°	2988.1	1936.8	590.4	442.8	401.4	371.7	347.3	332.4	321.7	314.3	313.2
27.5°	3119.8	1924.1	524.6	412.0	370.6	341.9	318.6	301.6	292.0	286.7	286.7
30°	3249.4	1921.0	500.1	382.2	343.0	314.3	291.0	275.0	267.6	265.5	264.4
32.5°	3405.5	1929.5	510.8	371.7	317.5	288.8	266.5	254.8	247.4	247.4	247.4
35°	3572.1	1927.3	526.6	381.2	300.5	263.3	246.3	238.9	231.4	231.4	231.4
37.5°	3781.3	1930.5	539.5	397.2	294.2	242.1	232.6	223.0	218.7	218.7	218.7
40°	4093.5	2035.6	533.1	410.9	292.0	227.2	208.1	204.9	201.7	201.7	201.7
42.5°	4475.8	2263.9	541.5	412.0	291.0	216.6	191.2	197.5	190.0	189.0	188.0
45°	4894.2	2513.4	595.7	389.7	289.9	211.4	182.7	190.0	178.4	178.4	178.4
47.5°	5309.3	2760.8	650.9	357.8	286.7	210.2	175.2	171.0	167.8	168.8	168.8
50°	5881.7	2962.7	672.2	314.3	279.3	208.1	161.4	162.5	160.3	162.5	162.5
52.5°	6505.0	3005.1	646.7	265.5	258.0	201.7	151.8	156.1	155.1	157.1	157.1
55°	6893.6	2959.4	534.1	220.9	225.1	176.3	142.3	150.8	150.8	150.8	150.8
57.5°	7295.0	2765.1	379.0	179.5	186.9	144.4	133.8	145.4	144.4	143.4	143.4
60°	7583.9	2450.8	249.6	147.6	148.6	118.9	124.2	136.9	135.9	130.6	130.6
62.5°	7799.4	2103.6	160.3	125.3	113.6	107.2	113.6	124.2	120.0	108.3	106.2
65°	7775.0	1622.6	123.2	107.2	93.5	93.5	98.7	108.3	95.5	76.5	74.3
67.5°	7321.6	1098.0	102.0	90.3	78.6	77.5	81.8	90.3	81.8	64.8	62.6
70°	6511.4	717.8	81.8	70.1	62.6	57.3	65.8	77.5	69.0	52.1	49.9
72.5°	5284.9	437.5	61.6	50.9	45.6	37.2	52.1	63.8	55.2	38.2	36.1
75°	3419.2	223.0	42.4	32.9	24.4	22.3	38.2	47.8	38.2	23.4	20.2
77.5°	1308.2	93.5	23.4	14.9	12.7	10.7	21.2	28.7	15.9	5.3	4.2
80°	251.6	39.3	11.7	7.5	6.4	4.2	3.2	2.2	0.0	0.0	0.0
82.5°	43.6	12.7	4.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	14.9	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	5.3	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)