

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: P967243

Luminaire Tested: **NAV-SB4D-740-U-T4FT-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967243
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4D-740-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 4000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 33485.7 lumens
Efficiency: N/A
Efficacy: 114.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

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



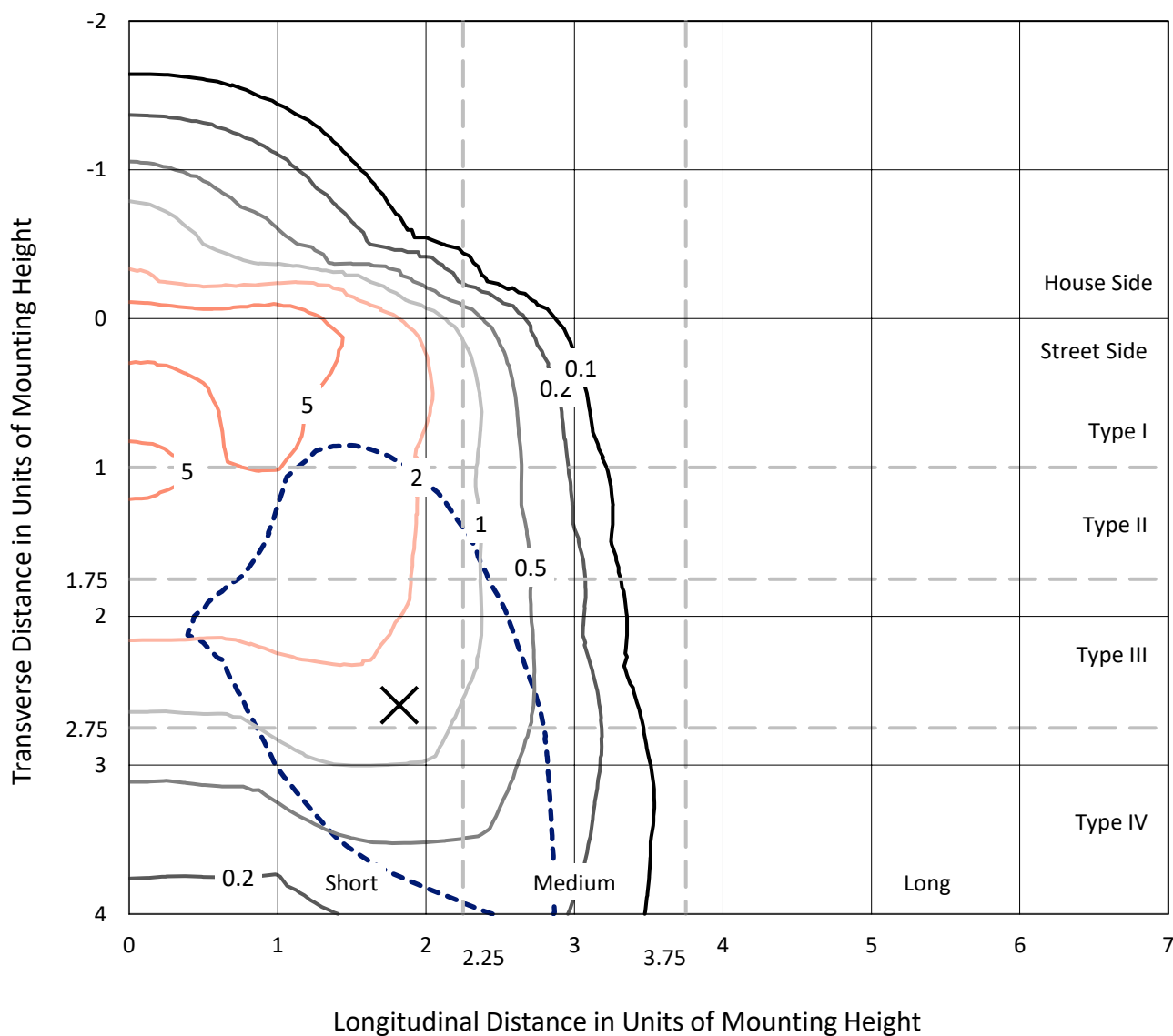
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

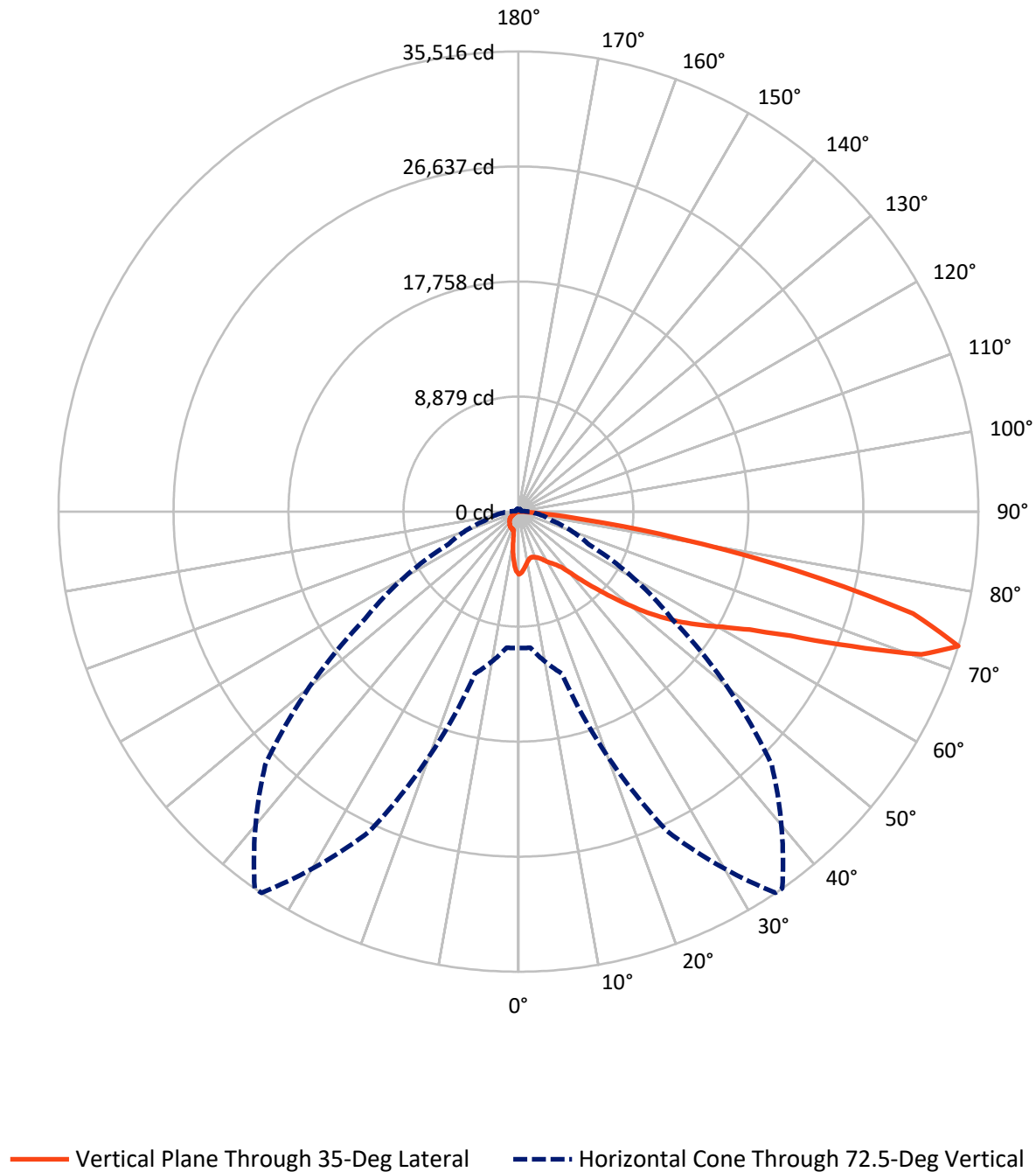


Based on 25 foot mounting height. Maximum calculated value = 7.8 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3768.7	0.0	3768.7
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	29717.1	0.0	29717.1
	% Fixture	88.7	0.0	88.7
Total	Lumens	33485.7	0.0	33485.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	398.8	1.2
10°-20°	933.0	2.8
20°-30°	1515.6	4.5
30°-40°	2528.7	7.6
40°-50°	4784.4	14.3
50°-60°	7602.3	22.7
60°-70°	9404.6	28.1
70°-80°	5846.0	17.5
80°-90°	472.5	1.4
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°	33485.7	100.0
0°-180°	33485.7	100.0

Coefficient of Utilization



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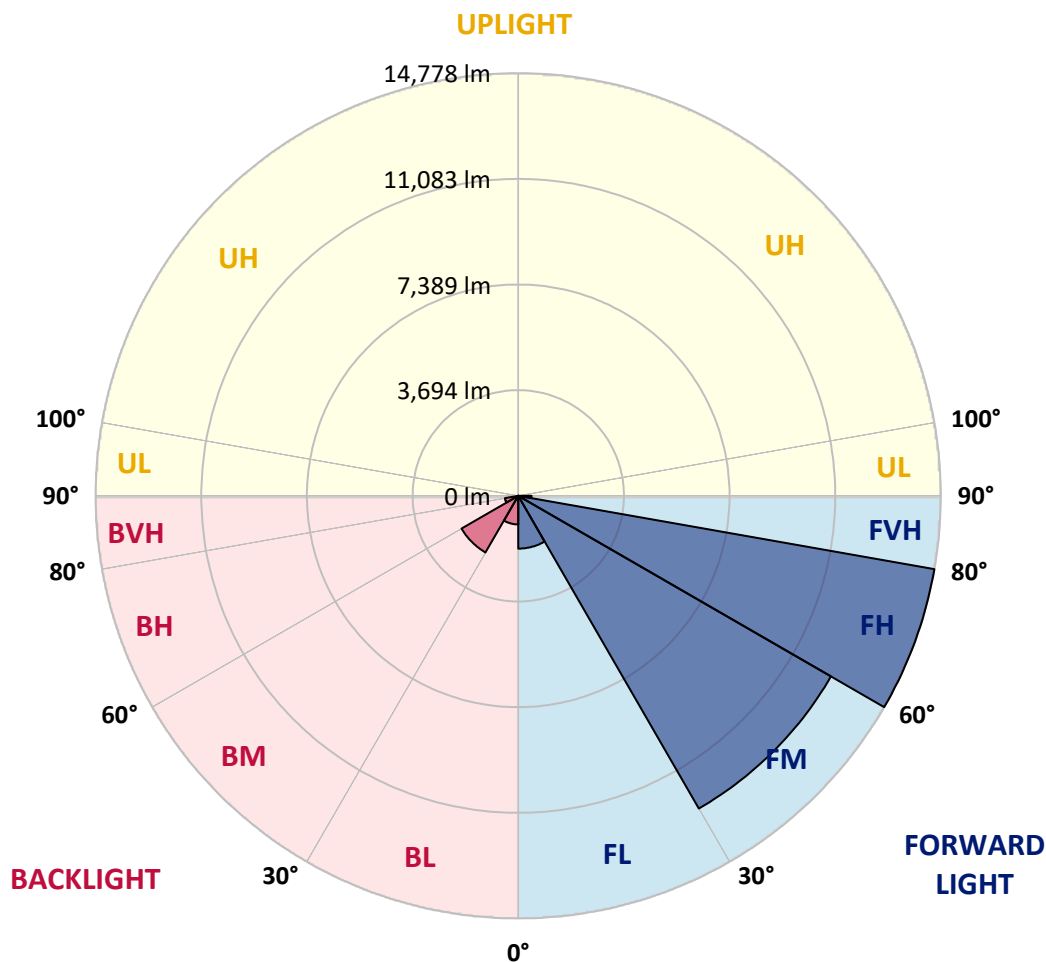
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1845.9	5.5			
FM	(30°-60°)	12627.5	37.7			
FH	(60°-80°)	14777.7	44.1			G5
FVH	(80°-90°)	466.0	1.4			G3/500
BL	(0°-30°)	1001.4	3.0	B3/2500		
BM	(30°-60°)	2287.9	6.8	B2/2500		
BH	(60°-80°)	472.9	1.4	B1/500		G1/500
BVH	(80°-90°)	6.4	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-G5

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	4853.2	4853.2	4853.2	4853.2	4853.2	4853.2	4853.2	4853.2	4853.2	4853.2	4853.2
2.5°	4637.3	4676.6	4683.9	4696.1	4696.1	4710.9	4735.4	4769.7	4826.2	4855.6	4875.3
5°	4274.1	4303.6	4340.4	4369.9	4426.3	4433.6	4529.4	4622.5	4752.6	4850.7	4919.5
7.5°	3908.5	3943.0	3992.0	4063.1	4136.8	4158.8	4303.6	4460.6	4666.7	4850.7	4966.0
10°	3650.9	3653.4	3697.6	3768.7	3886.5	3913.4	4090.2	4313.4	4571.1	4821.3	5010.2
12.5°	3506.2	3523.3	3543.0	3596.9	3709.8	3727.0	3915.9	4178.5	4475.4	4804.2	5061.8
15°	3506.2	3518.4	3530.7	3557.7	3648.5	3663.2	3830.0	4092.6	4426.3	4811.5	5145.2
17.5°	3543.0	3562.6	3552.8	3584.7	3680.4	3690.2	3837.4	4068.0	4423.8	4858.1	5272.8
20°	3631.3	3646.0	3626.4	3646.0	3741.8	3761.3	3913.4	4114.7	4465.5	4939.1	5432.3
22.5°	3771.2	3778.6	3731.9	3746.7	3844.8	3869.3	4046.0	4247.2	4566.2	5069.1	5645.7
25°	3947.8	3962.5	3891.4	3908.5	4001.8	4031.2	4234.9	4445.9	4725.7	5248.2	5918.0
27.5°	4151.5	4158.8	4097.5	4095.1	4215.3	4257.0	4463.1	4691.2	4939.1	5474.0	6261.5
30°	4384.5	4406.7	4347.7	4337.9	4490.1	4524.5	4728.1	4993.1	5253.1	5812.6	6749.8
32.5°	4568.6	4585.7	4551.4	4575.9	4730.5	4757.5	5049.5	5420.0	5746.4	6293.5	7414.7
35°	4833.6	4843.4	4764.9	4809.0	4985.7	5054.4	5488.7	6018.7	6367.1	6897.0	8283.3
37.5°	5792.9	5792.9	5459.3	5240.8	5410.2	5471.6	6089.8	6771.9	7132.6	7706.8	9377.6
40°	7120.4	7098.2	6610.0	6163.4	6141.4	6261.5	6946.1	7721.4	8121.4	8678.4	10609.4
42.5°	8536.0	8501.7	7836.7	7395.2	7321.5	7363.2	7934.9	8891.8	9299.1	9863.5	11934.3
45°	9792.2	9782.5	9174.0	8580.2	8447.7	8580.2	9169.0	10261.0	10552.9	11146.7	13256.7
47.5°	10844.9	10844.9	10400.8	10013.1	9944.4	10023.0	10840.0	11779.7	11752.8	12513.3	14544.9
50°	12057.0	12047.1	11625.1	11458.3	11529.4	11639.8	12763.6	13379.4	12994.2	13855.4	15695.6
52.5°	12905.9	12964.8	12820.0	12793.0	13156.2	13347.6	14716.6	14944.8	14105.7	15128.8	16556.8
55°	13578.2	13646.8	13813.7	14002.6	14701.9	14952.2	16608.4	16429.2	15035.6	16232.9	17052.4
57.5°	14530.2	14432.0	14689.7	15062.6	16193.7	16495.5	18441.2	17830.3	15784.0	17128.6	17106.4
60°	15685.8	15700.5	15744.7	16215.8	17683.0	18070.8	20247.0	19155.2	16264.9	17678.2	16507.7
62.5°	17074.6	17096.6	17187.4	17911.3	19682.7	20048.3	22170.6	20239.6	16485.7	17523.5	14962.0
65°	16978.8	17072.1	18085.4	20561.1	22722.7	23083.4	24415.7	21000.3	16152.0	16110.2	12182.1
67.5°	15467.5	15619.6	17315.0	23726.2	27306.0	27708.4	27129.4	21150.0	14711.7	12528.1	7947.1
70°	13484.9	13538.9	15577.8	26572.4	32613.1	33020.5	29558.4	19503.6	11163.9	6987.8	3560.1
72.5°	10530.8	10543.0	12935.3	27232.4	35493.7	35515.7	27651.9	14478.6	6003.9	2684.3	1236.6
75°	7522.7	7449.1	8663.6	22084.8	31226.8	31477.1	20730.4	6791.5	2294.2	1268.5	615.8
77.5°	4033.7	4114.7	4902.3	13097.2	21571.9	21998.9	11311.1	1958.0	1167.9	863.7	407.3
80°	1246.4	1315.1	2009.5	5996.6	12218.9	12476.5	4193.2	871.0	814.6	615.8	267.4
82.5°	392.6	407.3	937.3	2519.9	5071.6	5189.4	1214.5	493.1	557.0	407.3	157.0
85°	112.9	115.3	417.1	939.7	1253.8	1278.3	341.0	191.4	319.0	252.8	81.0
87.5°	12.3	39.3	157.0	157.0	110.4	107.9	36.8	41.7	90.8	31.9	14.8
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°	4853.2	4853.2	4853.2	4853.2	4853.2	4853.2	4853.2	4853.2	4853.2	4853.2	4853.2
2.5°	4863.0	4865.5	4833.6	4779.6	4720.7	4671.6	4610.3	4561.2	4526.9	4517.1	4534.2
5°	4897.3	4880.2	4789.4	4625.0	4428.7	4259.4	4070.5	3920.8	3822.7	3781.0	3795.7
7.5°	4948.9	4899.8	4701.1	4377.2	4001.8	3668.2	3329.5	3067.0	2900.1	2816.7	2829.0
10°	4993.1	4894.9	4553.9	4019.0	3444.8	2939.4	2483.1	2166.5	1989.8	1906.4	1908.9
12.5°	5034.8	4892.4	4362.5	3594.5	2816.7	2198.4	1774.0	1616.9	1567.8	1550.6	1545.8
15°	5113.3	4899.8	4122.0	3108.7	2191.0	1661.1	1506.5	1504.1	1513.8	1509.0	1506.5
17.5°	5221.2	4907.2	3849.7	2593.5	1690.5	1464.8	1457.4	1479.5	1494.2	1486.9	1484.4
20°	5361.1	4936.6	3560.1	2083.1	1452.5	1415.7	1432.8	1452.5	1464.8	1452.5	1450.1
22.5°	5557.3	4988.2	3243.6	1673.3	1376.5	1386.3	1401.0	1423.1	1435.3	1418.2	1415.7
25°	5797.8	5069.1	2932.0	1455.0	1339.7	1352.0	1374.0	1398.5	1413.3	1396.0	1393.6
27.5°	6109.4	5199.2	2645.0	1405.9	1302.9	1310.3	1342.1	1378.9	1398.5	1376.5	1376.5
30°	6560.9	5412.6	2397.2	1428.0	1280.7	1263.6	1307.8	1359.3	1381.4	1361.7	1359.3
32.5°	7159.6	5714.4	2245.1	1462.4	1271.0	1209.6	1251.3	1317.5	1354.3	1342.1	1342.1
35°	7944.8	6173.3	2186.1	1501.6	1263.6	1153.2	1182.6	1253.8	1317.5	1329.8	1329.8
37.5°	8896.7	6811.1	2203.3	1518.7	1241.5	1106.6	1121.2	1182.6	1266.1	1305.3	1315.1
40°	9978.8	7554.6	2301.4	1501.6	1217.0	1067.3	1069.8	1116.4	1190.0	1248.9	1268.5
42.5°	11095.1	8423.1	2483.1	1437.8	1194.9	1033.0	1025.6	1057.5	1106.6	1148.3	1165.4
45°	12157.5	9316.3	2662.1	1349.5	1167.9	998.7	981.4	993.7	1003.5	1020.7	1030.5
47.5°	13085.0	9944.4	2610.6	1268.5	1131.1	959.4	929.9	925.0	895.5	893.1	890.6
50°	13725.4	10081.8	2318.7	1187.6	1077.2	915.2	868.6	839.2	787.6	763.1	765.5
52.5°	13929.0	9539.6	1894.2	1106.6	988.8	856.3	790.1	743.4	679.7	657.5	655.1
55°	13659.2	8477.2	1513.8	1008.4	866.1	777.8	704.2	642.9	591.3	564.4	564.4
57.5°	12999.2	7125.2	1197.3	893.1	736.1	689.4	615.8	554.5	510.3	483.4	478.5
60°	11904.9	5658.0	947.1	755.7	628.1	593.8	517.7	478.5	439.2	407.3	400.0
62.5°	10243.7	4038.6	743.4	598.7	525.1	485.8	441.7	412.2	365.6	321.4	314.1
65°	7993.8	2470.8	574.1	439.2	422.0	402.4	375.4	348.4	292.0	247.8	240.5
67.5°	5042.2	1170.3	409.8	331.3	333.6	323.9	311.6	289.6	247.8	208.6	203.7
70°	2220.5	566.8	269.9	252.8	247.8	247.8	257.6	250.3	211.0	174.2	166.9
72.5°	755.7	304.2	201.2	191.4	179.1	176.6	215.9	208.6	169.3	135.0	127.6
75°	395.0	203.7	147.2	137.4	107.9	130.1	171.8	162.0	120.2	88.4	81.0
77.5°	257.6	144.7	100.6	88.4	61.3	85.9	127.6	112.9	71.1	44.2	39.3
80°	162.0	95.7	58.8	41.7	29.4	46.6	68.7	49.1	27.0	9.8	7.4
82.5°	85.9	49.1	22.0	14.8	12.3	14.8	17.2	12.3	4.9	0.0	0.0
85°	34.3	17.2	7.4	4.9	2.5	0.0	4.9	2.5	0.0	0.0	0.0
87.5°	12.3	2.5	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)