

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: P967245

Luminaire Tested: **NAV-SB4D-740-U-T4W-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967245
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-2)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4D-740-U-T4W-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 4000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 34066.9 lumens
Efficiency: N/A
Efficacy: 116.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - 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



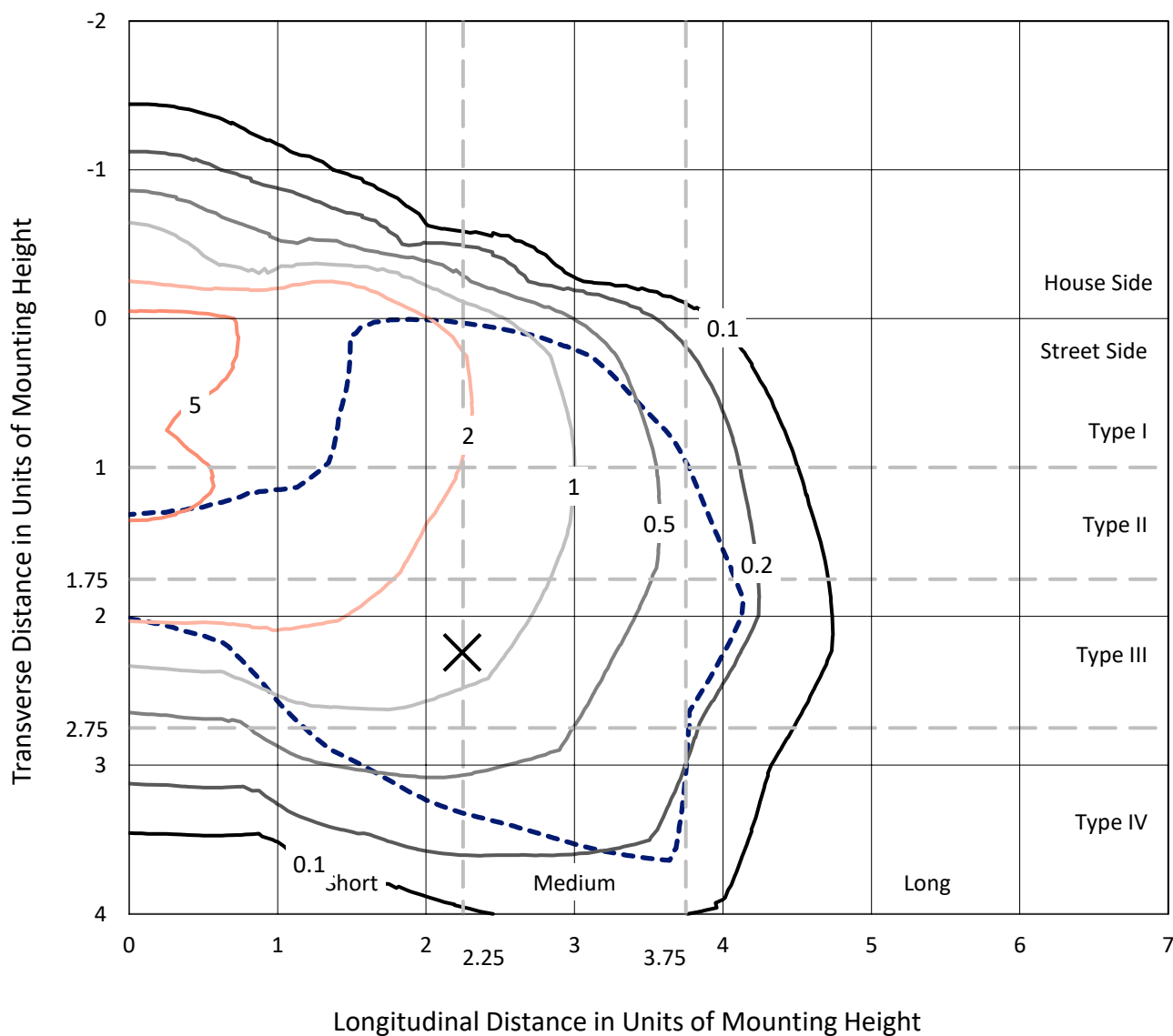
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

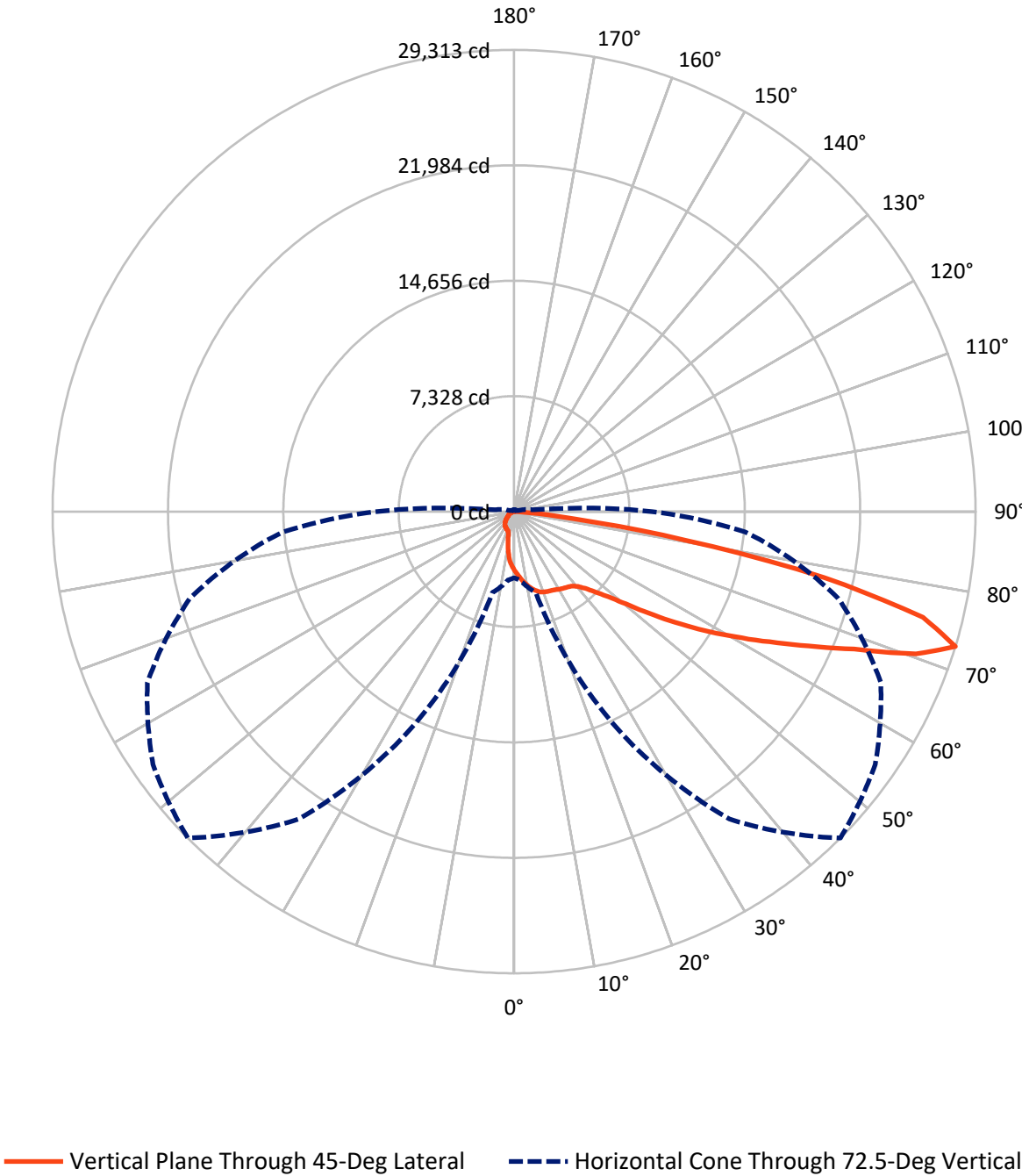


Based on 25 foot mounting height. Maximum calculated value = 8.2 fc

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	3579.5	0.0	3579.5
	% Fixture	10.5	0.0	10.5
Street Side	Lumens	30487.4	0.0	30487.4
	% Fixture	89.5	0.0	89.5
Total	Lumens	34066.9	0.0	34066.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	351.6	1.0
10°-20°	1027.7	3.0
20°-30°	1687.6	5.0
30°-40°	2393.5	7.0
40°-50°	3956.1	11.6
50°-60°	7106.7	20.9
60°-70°	9868.1	29.0
70°-80°	7158.0	21.0
80°-90°	517.5	1.5
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°	34066.9	100.0
0°-180°	34066.9	100.0

Coefficient of Utilization



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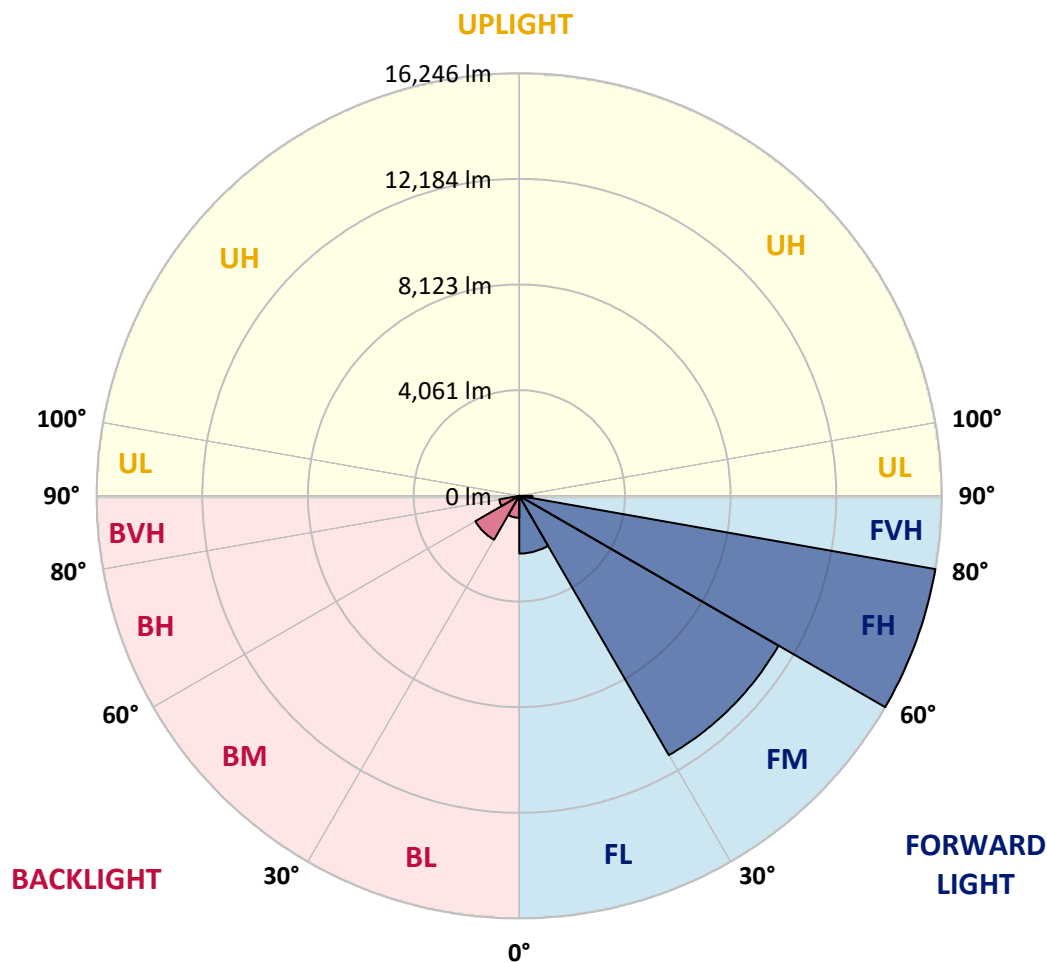
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2219.1	6.5			
FM	(30°-60°)	11509.6	33.8			
FH	(60°-80°)	16245.5	47.7			G5
FVH	(80°-90°)	513.1	1.5			G4/750
BL	(0°-30°)	847.8	2.5	B2/1000		
BM	(30°-60°)	1946.7	5.7	B2/2500		
BH	(60°-80°)	780.6	2.3	B2/1000		G2/1000
BVH	(80°-90°)	4.3	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-G5

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	3732.1	3732.1	3732.1	3732.1	3732.1	3732.1	3732.1	3732.1	3732.1	3732.1	3732.1
2.5°	4076.2	4083.2	4078.6	4050.7	4004.2	3978.5	3964.6	3918.2	3887.9	3834.4	3778.6
5°	4450.7	4478.5	4462.2	4406.5	4318.1	4255.3	4236.7	4141.3	4055.3	3955.4	3839.0
7.5°	4848.2	4862.2	4832.0	4759.9	4641.3	4534.3	4518.1	4385.5	4248.3	4094.9	3936.7
10°	5192.3	5208.6	5162.2	5057.6	4922.7	4790.1	4766.9	4620.4	4457.6	4269.2	4067.0
12.5°	5480.7	5497.0	5436.5	5310.9	5162.2	5025.0	5001.7	4848.2	4669.2	4459.9	4208.8
15°	5699.3	5729.5	5648.2	5513.3	5352.9	5215.6	5204.0	5052.8	4878.5	4645.9	4378.5
17.5°	5827.2	5857.5	5780.7	5617.9	5480.7	5364.4	5350.5	5224.9	5062.2	4838.9	4543.6
20°	5848.1	5876.0	5794.6	5652.8	5538.9	5445.8	5438.9	5348.1	5229.5	5015.6	4722.7
22.5°	5785.3	5820.3	5745.8	5631.9	5552.8	5503.9	5494.7	5443.6	5376.1	5194.7	4890.1
25°	5720.2	5748.1	5692.3	5592.3	5550.5	5545.9	5552.8	5543.5	5529.6	5376.1	5085.4
27.5°	5715.6	5745.8	5683.0	5587.7	5564.4	5613.3	5620.3	5664.5	5676.0	5541.2	5273.7
30°	5755.1	5776.1	5715.6	5615.6	5604.0	5715.6	5717.9	5797.0	5815.5	5680.7	5459.8
32.5°	5841.2	5864.4	5804.0	5657.5	5641.2	5797.0	5804.0	5908.6	5938.8	5829.5	5655.1
35°	6043.4	6071.4	6001.6	5773.7	5715.6	5873.7	5894.7	6017.9	6078.4	5987.6	5857.5
37.5°	6548.0	6466.6	6371.3	6008.5	5885.3	5994.6	6029.5	6173.7	6280.6	6176.0	6099.3
40°	7801.4	7545.5	7248.0	6408.5	6183.0	6252.7	6280.6	6424.8	6571.3	6469.0	6431.8
42.5°	9682.6	9380.3	8901.2	7329.4	6631.7	6666.6	6687.5	6813.1	7020.0	6938.6	6948.0
45°	11359.0	11249.8	10761.5	8901.2	7471.2	7299.1	7324.6	7389.8	7694.4	7664.1	7724.6
47.5°	12647.3	12584.5	12207.9	10705.7	8889.6	8073.4	8145.5	8175.7	8615.2	8722.2	8885.0
50°	13637.8	13614.6	13277.4	12310.1	10742.8	9215.2	9240.7	9175.6	9833.6	10098.8	10408.1
52.5°	14572.6	14651.7	14402.9	13800.6	12721.7	10710.3	10705.7	10398.7	11287.0	11686.9	12214.8
55°	15416.7	15444.6	15470.2	15321.4	14712.1	12412.4	12368.3	11866.0	12972.8	13386.7	13958.8
57.5°	16209.7	16221.2	16449.2	16753.7	16784.0	14240.1	14158.7	13556.4	14814.4	15109.7	15460.9
60°	16742.1	16795.6	17277.0	18123.3	18493.0	16125.9	16081.7	15467.9	16688.6	16825.9	16760.7
62.5°	15974.8	16300.4	17514.2	19193.0	20106.8	18216.4	18195.5	17618.7	18660.5	18548.9	17990.8
65°	12931.0	13482.0	15616.7	19916.2	21690.3	20550.9	20581.2	19967.3	20685.8	20323.1	18990.7
67.5°	9045.4	9626.7	12152.0	19974.3	23459.9	23292.5	23466.9	22504.2	22836.7	22022.8	19227.9
70°	6255.1	6555.0	8199.0	18723.3	24838.8	27068.8	27064.1	25620.1	24976.0	22797.2	18018.7
72.5°	4206.5	4362.3	5325.0	14854.0	23825.0	29312.6	29177.9	28001.3	25696.9	21320.6	14721.5
75°	1774.2	1888.2	2464.8	8347.8	18848.8	26817.7	26452.6	24745.9	22832.1	16788.7	9184.9
77.5°	562.7	611.5	972.0	2988.0	10382.4	20158.0	19772.0	15453.9	15302.7	8422.2	3357.7
80°	267.4	311.6	546.4	1199.9	4085.5	10963.8	10910.3	7010.8	6583.0	2274.2	674.3
82.5°	116.2	137.1	302.3	641.8	1827.7	3911.2	3990.2	2385.8	1974.2	862.6	206.9
85°	37.2	48.8	139.5	295.3	772.0	972.0	960.3	567.3	795.3	469.8	72.1
87.5°	0.0	0.0	46.5	67.4	79.0	55.8	62.8	48.8	220.9	130.2	25.6
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°	3732.1	3732.1	3732.1	3732.1	3732.1	3732.1	3732.1	3732.1	3732.1	3732.1	3732.1
2.5°	3750.7	3713.5	3648.4	3587.9	3534.4	3481.0	3448.4	3401.9	3397.3	3397.3	3408.8
5°	3776.3	3715.8	3599.6	3476.3	3334.4	3199.6	3064.7	2934.6	2892.7	2862.4	2876.4
7.5°	3850.7	3755.4	3571.6	3336.8	3067.1	2771.8	2564.8	2341.6	2255.5	2209.1	2216.0
10°	3957.6	3827.5	3548.4	3136.8	2699.6	2297.4	2002.0	1760.2	1667.3	1627.7	1627.7
12.5°	4076.2	3915.8	3506.5	2888.0	2297.4	1816.1	1527.8	1416.1	1402.2	1402.2	1402.2
15°	4218.1	4022.7	3434.5	2595.0	1876.5	1437.0	1334.8	1339.4	1353.3	1362.6	1362.6
17.5°	4364.6	4136.7	3320.5	2267.2	1504.5	1292.8	1295.2	1302.2	1313.7	1323.1	1323.1
20°	4522.7	4250.7	3169.4	1918.4	1290.6	1251.0	1258.0	1265.0	1274.3	1278.9	1281.2
22.5°	4692.4	4357.6	2990.3	1576.6	1218.4	1216.2	1218.4	1225.4	1237.1	1237.1	1241.7
25°	4873.8	4476.2	2785.7	1327.8	1181.2	1181.2	1185.9	1190.5	1199.9	1199.9	1202.2
27.5°	5059.8	4585.4	2569.5	1197.5	1148.7	1146.4	1146.4	1153.3	1158.0	1160.3	1162.7
30°	5264.5	4713.4	2353.2	1169.6	1123.1	1111.5	1104.5	1109.2	1113.9	1116.1	1120.8
32.5°	5473.7	4836.7	2160.2	1181.2	1097.6	1076.7	1053.4	1048.7	1048.7	1058.0	1065.0
35°	5706.3	4971.5	2011.4	1220.8	1083.6	1025.4	988.2	967.3	969.6	983.6	990.6
37.5°	5985.3	5134.2	1902.1	1255.6	1074.3	967.3	906.8	881.3	865.0	881.3	876.7
40°	6350.4	5373.8	1823.1	1283.6	1062.6	899.8	818.5	776.6	746.4	755.7	751.1
42.5°	6887.5	5750.5	1792.8	1285.9	1037.1	820.8	727.9	672.0	627.8	630.2	620.8
45°	7641.0	6345.8	1948.6	1255.6	981.2	734.8	632.5	558.1	530.1	523.2	513.9
47.5°	8673.3	7213.0	2309.0	1192.9	899.8	651.1	539.5	476.7	455.7	444.1	437.2
50°	10056.9	8326.9	2709.0	1123.1	818.5	572.1	462.7	423.2	409.3	397.6	395.3
52.5°	11661.3	9457.0	3036.9	1053.4	737.1	502.2	413.9	390.6	379.0	369.7	367.4
55°	13133.3	10236.0	3018.2	979.0	658.0	446.5	379.0	365.1	351.2	341.8	337.1
57.5°	14049.5	10345.2	2488.1	897.6	567.3	402.3	346.4	337.1	320.9	309.2	307.0
60°	14470.3	9722.0	1743.9	790.6	476.7	360.4	311.6	307.0	286.0	269.8	265.1
62.5°	14547.1	8564.1	1162.7	658.0	397.6	320.9	276.8	269.8	241.8	213.9	200.0
65°	14235.5	6908.5	804.5	513.9	339.5	279.0	237.2	223.2	193.0	165.1	155.8
67.5°	13249.6	4850.6	560.4	369.7	288.3	220.9	188.4	183.7	160.4	137.1	130.2
70°	11442.8	2764.7	374.3	276.8	227.9	151.2	148.8	153.4	130.2	111.6	102.3
72.5°	8773.4	1265.0	232.6	202.3	155.8	102.3	118.6	121.0	99.9	83.7	74.4
75°	5164.5	541.8	146.5	130.2	79.0	67.4	86.0	88.4	67.4	53.5	46.5
77.5°	1757.9	204.6	93.0	76.8	39.6	37.2	55.8	55.8	37.2	20.9	16.3
80°	400.0	76.8	46.5	30.2	18.6	16.3	18.6	16.3	9.3	2.4	0.0
82.5°	114.0	30.2	18.6	11.6	7.0	7.0	2.4	0.0	0.0	0.0	0.0
85°	32.6	13.9	4.6	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	13.9	2.4	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)