

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: P967367

Luminaire Tested: **NAV-SB4D-830-U-T4FT-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967367
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-830-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3000K, 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: 28439.7 lumens
Efficiency: N/A
Efficacy: 96.9 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



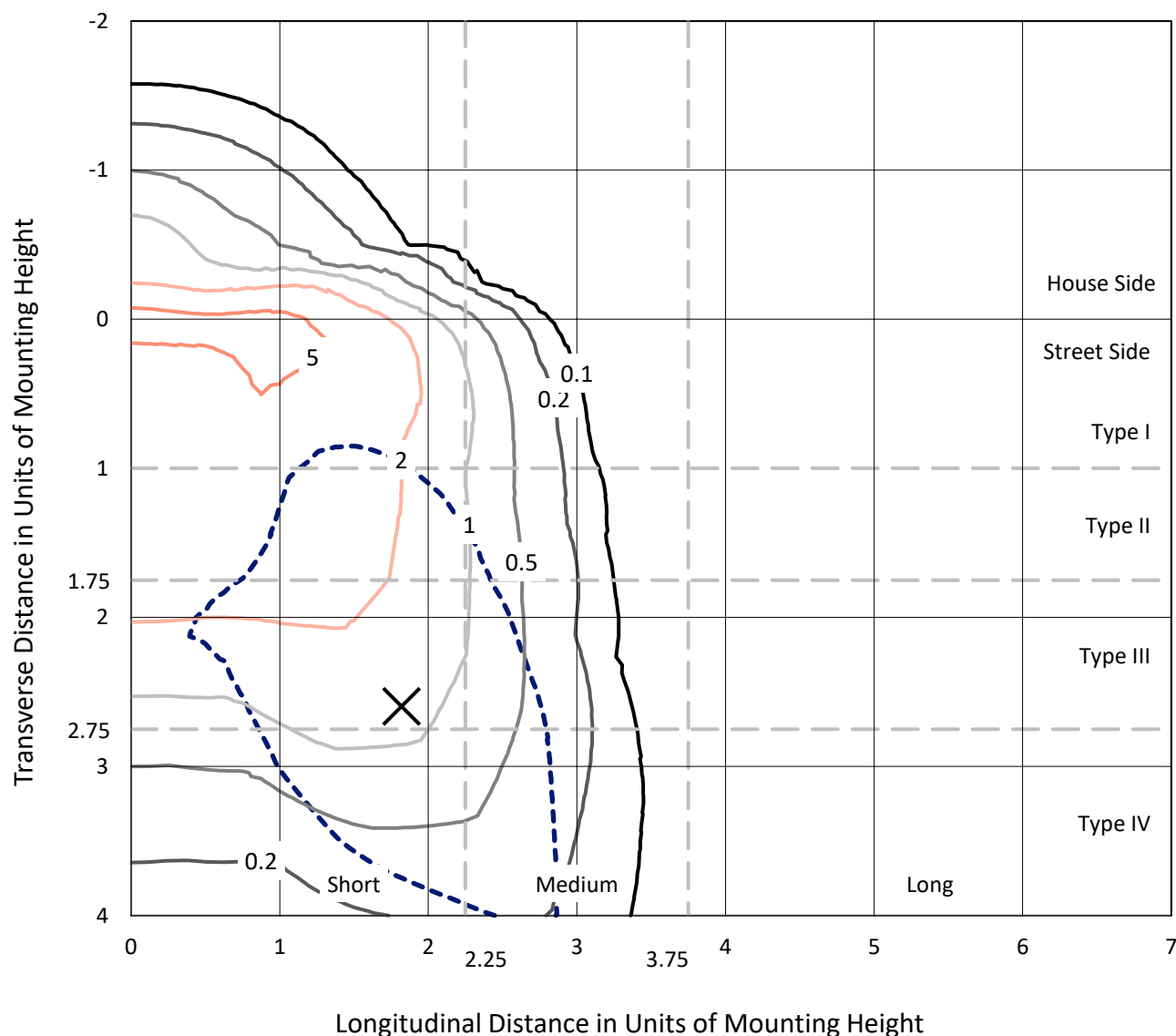
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

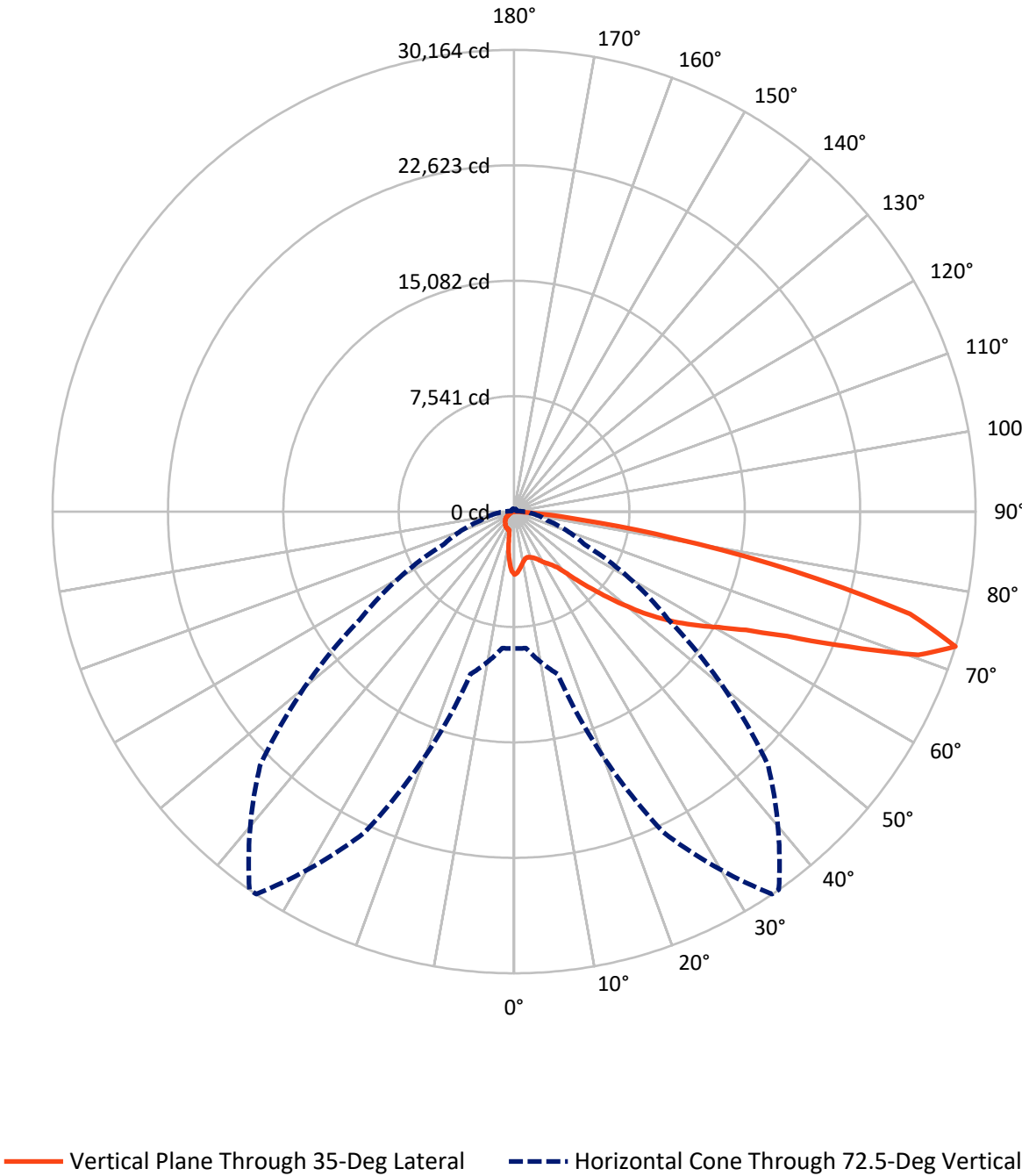


Based on 25 foot mounting height. Maximum calculated value = 6.6 fc

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	3200.8	0.0	3200.8
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	25238.9	0.0	25238.9
	% Fixture	88.7	0.0	88.7
Total	Lumens	28439.7	0.0	28439.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	338.7	1.2
10°-20°	792.4	2.8
20°-30°	1287.2	4.5
30°-40°	2147.6	7.6
40°-50°	4063.4	14.3
50°-60°	6456.7	22.7
60°-70°	7987.4	28.1
70°-80°	4965.0	17.5
80°-90°	401.3	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°	28439.7	100.0
0°-180°	28439.7	100.0

Coefficient of Utilization



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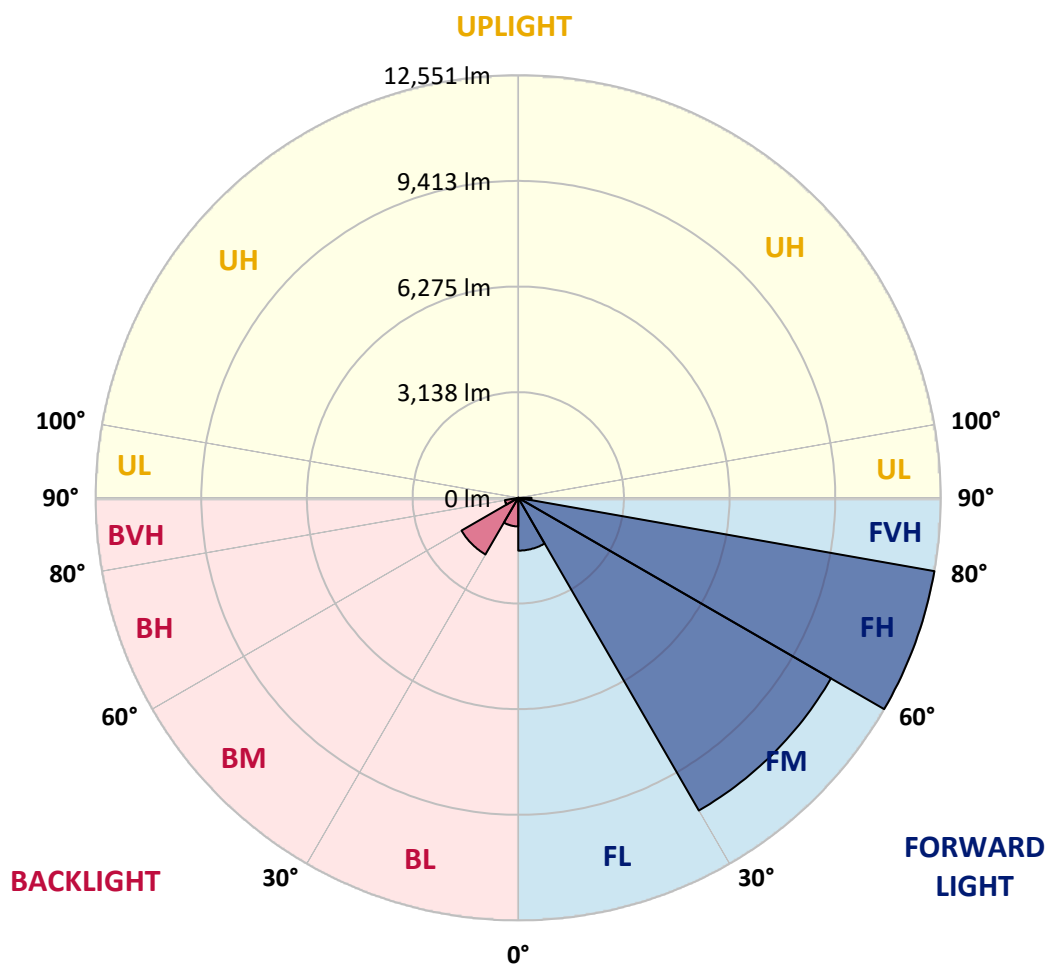
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1567.7	5.5			
FM	(30°-60°)	10724.6	37.7			
FH	(60°-80°)	12550.8	44.1			G5
FVH	(80°-90°)	395.8	1.4			G3/500
BL	(0°-30°)	850.5	3.0	B2/1000		
BM	(30°-60°)	1943.1	6.8	B2/2500		
BH	(60°-80°)	401.6	1.4	B1/500		G1/500
BVH	(80°-90°)	5.5	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G5

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	4121.8	4121.8	4121.8	4121.8	4121.8	4121.8	4121.8	4121.8	4121.8	4121.8	4121.8
2.5°	3938.5	3971.8	3978.0	3988.5	3988.5	4001.0	4021.8	4051.0	4099.0	4124.0	4140.6
5°	3630.0	3655.0	3686.3	3711.3	3759.3	3765.5	3846.8	3926.0	4036.4	4119.8	4178.1
7.5°	3319.6	3348.8	3390.4	3450.9	3513.4	3532.2	3655.0	3788.4	3963.5	4119.8	4217.7
10°	3100.7	3102.9	3140.4	3200.8	3300.8	3323.8	3473.8	3663.5	3882.2	4094.8	4255.2
12.5°	2977.8	2992.4	3009.1	3054.9	3150.7	3165.4	3325.8	3548.8	3800.9	4080.2	4299.0
15°	2977.8	2988.3	2998.6	3021.6	3098.7	3111.2	3252.9	3475.9	3759.3	4086.5	4369.9
17.5°	3009.1	3025.8	3017.4	3044.6	3125.7	3134.1	3259.2	3455.1	3757.1	4126.0	4478.2
20°	3084.1	3096.6	3079.9	3096.6	3177.9	3194.5	3323.8	3494.6	3792.6	4194.8	4613.6
22.5°	3202.9	3209.2	3169.5	3182.0	3265.4	3286.3	3436.3	3607.2	3878.1	4305.2	4795.0
25°	3352.9	3365.4	3305.0	3319.6	3398.8	3423.8	3596.7	3775.9	4013.5	4457.3	5026.3
27.5°	3525.9	3532.2	3480.1	3477.9	3580.0	3615.5	3790.6	3984.3	4194.8	4649.1	5318.0
30°	3723.8	3742.6	3692.6	3684.3	3813.4	3842.6	4015.5	4240.6	4461.5	4936.6	5732.7
32.5°	3880.1	3894.7	3865.6	3886.4	4017.7	4040.6	4288.6	4603.3	4880.3	5345.1	6297.4
35°	4105.2	4113.5	4046.8	4084.3	4234.4	4292.7	4661.6	5111.7	5407.6	5857.7	7035.1
37.5°	4920.0	4920.0	4636.6	4451.1	4594.9	4646.9	5172.2	5751.5	6057.7	6545.3	7964.5
40°	6047.3	6028.5	5613.9	5234.7	5215.9	5318.0	5899.4	6557.8	6897.5	7370.6	9010.6
42.5°	7249.7	7220.5	6655.8	6280.7	6218.2	6253.6	6739.2	7551.9	7897.8	8377.1	10135.8
45°	8316.6	8308.3	7791.5	7287.2	7174.7	7287.2	7787.3	8714.7	8962.6	9466.9	11259.0
47.5°	9210.6	9210.6	8833.4	8504.2	8445.9	8512.5	9206.4	10004.6	9981.7	10627.6	12353.1
50°	10240.1	10231.8	9873.3	9731.6	9792.0	9885.8	10840.2	11363.3	11036.1	11767.5	13330.4
52.5°	10961.0	11011.1	10888.2	10865.2	11173.6	11336.2	12499.0	12692.8	11980.1	12849.0	14061.9
55°	11532.1	11590.4	11732.0	11892.6	12486.4	12699.0	14105.6	13953.4	12769.9	13786.8	14482.7
57.5°	12340.6	12257.3	12476.0	12792.7	13753.4	14009.7	15662.2	15143.4	13405.5	14547.4	14528.7
60°	13322.0	13334.5	13372.0	13772.2	15018.3	15347.5	17195.9	16268.6	13813.8	15014.2	14020.2
62.5°	14501.5	14520.3	14597.3	15212.1	16716.6	17027.2	18829.7	17189.7	14001.4	14882.9	12707.3
65°	14420.2	14499.4	15360.0	17462.7	19298.6	19604.9	20736.4	17835.7	13718.0	13682.5	10346.3
67.5°	13136.6	13265.8	14705.8	20150.9	23191.1	23533.0	23041.2	17962.8	12494.7	10640.1	6749.6
70°	11452.8	11498.7	13230.4	22568.1	27698.6	28044.5	25104.2	16564.5	9481.6	5934.9	3023.6
72.5°	8943.8	8954.3	10986.1	23128.7	30145.0	30163.8	23485.0	12296.8	5099.2	2279.7	1050.2
75°	6389.1	6326.6	7358.1	18756.8	26521.2	26733.7	17606.4	5768.1	1948.4	1077.4	523.1
77.5°	3425.9	3494.6	4163.5	11123.6	18321.3	18683.8	9606.6	1663.0	991.9	733.5	345.9
80°	1058.6	1116.9	1706.6	5092.9	10377.6	10596.3	3561.3	739.7	691.9	523.1	227.1
82.5°	333.4	345.9	796.0	2140.1	4307.4	4407.4	1031.5	418.8	473.0	345.9	133.4
85°	95.8	98.0	354.2	798.1	1064.9	1085.7	289.7	162.6	270.9	214.6	68.8
87.5°	10.5	33.3	133.4	133.4	93.8	91.7	31.3	35.5	77.1	27.1	12.5
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°	4121.8	4121.8	4121.8	4121.8	4121.8	4121.8	4121.8	4121.8	4121.8	4121.8	4121.8
2.5°	4130.2	4132.3	4105.2	4059.3	4009.3	3967.7	3915.6	3873.9	3844.7	3836.4	3850.9
5°	4159.3	4144.8	4067.7	3928.1	3761.3	3617.5	3457.1	3330.0	3246.7	3211.2	3223.7
7.5°	4203.1	4161.5	3992.7	3717.6	3398.8	3115.4	2827.8	2604.8	2463.1	2392.2	2402.7
10°	4240.6	4157.3	3867.6	3413.4	2925.8	2496.5	2108.8	1840.1	1690.0	1619.2	1621.2
12.5°	4276.1	4155.2	3705.1	3052.9	2392.2	1867.1	1506.6	1373.3	1331.6	1317.0	1312.8
15°	4342.7	4161.5	3500.9	2640.2	1860.9	1410.8	1279.5	1277.4	1285.8	1281.6	1279.5
17.5°	4434.5	4167.8	3269.5	2202.6	1435.8	1244.0	1237.8	1256.5	1269.1	1262.8	1260.8
20°	4553.3	4192.7	3023.6	1769.2	1233.7	1202.4	1217.0	1233.7	1244.0	1233.7	1231.5
22.5°	4719.9	4236.4	2754.9	1421.2	1169.0	1177.4	1189.9	1208.7	1219.0	1204.5	1202.4
25°	4924.1	4305.2	2490.2	1235.7	1137.8	1148.2	1167.0	1187.8	1200.3	1185.7	1183.7
27.5°	5188.8	4415.7	2246.4	1194.0	1106.5	1112.7	1139.9	1171.2	1187.8	1169.0	1169.0
30°	5572.2	4597.0	2036.0	1212.8	1087.7	1073.2	1110.7	1154.5	1173.2	1156.5	1154.5
32.5°	6080.7	4853.3	1906.7	1242.0	1079.4	1027.4	1062.7	1119.0	1150.3	1139.9	1139.9
35°	6747.5	5243.0	1856.7	1275.3	1073.2	979.4	1004.4	1064.9	1119.0	1129.4	1129.4
37.5°	7556.1	5784.8	1871.3	1289.9	1054.4	939.8	952.3	1004.4	1075.2	1108.6	1116.9
40°	8475.0	6416.2	1954.7	1275.3	1033.6	906.5	908.6	948.1	1010.6	1060.7	1077.4
42.5°	9423.1	7153.9	2108.8	1221.2	1014.9	877.3	871.0	898.1	939.8	975.3	989.8
45°	10325.4	7912.4	2260.9	1146.2	991.9	848.1	833.5	844.0	852.3	866.8	875.2
47.5°	11113.2	8445.9	2217.2	1077.4	960.6	814.8	789.8	785.7	760.7	758.5	756.4
50°	11657.0	8562.5	1969.2	1008.6	914.8	777.3	737.7	712.7	668.9	648.1	650.2
52.5°	11830.0	8102.0	1608.7	939.8	839.8	727.2	671.0	631.4	577.2	558.5	556.4
55°	11600.8	7199.7	1285.8	856.5	735.6	660.6	598.1	546.0	502.2	479.3	479.3
57.5°	11040.3	6051.5	1016.9	758.5	625.1	585.6	523.1	471.0	433.5	410.5	406.3
60°	10110.8	4805.4	804.3	641.9	533.5	504.3	439.7	406.3	373.0	345.9	339.7
62.5°	8700.1	3430.1	631.4	508.5	446.0	412.6	375.0	350.0	310.5	273.0	266.7
65°	6789.2	2098.5	487.6	373.0	358.4	341.7	318.9	295.9	247.9	210.4	204.2
67.5°	4282.3	994.0	348.0	281.4	283.4	275.1	264.7	245.9	210.4	177.1	172.9
70°	1885.9	481.3	229.2	214.6	210.4	210.4	218.8	212.6	179.2	147.9	141.7
72.5°	641.9	258.4	170.9	162.6	152.1	150.1	183.4	177.1	143.8	114.6	108.3
75°	335.5	172.9	125.0	116.6	91.7	110.5	145.9	137.6	102.1	75.0	68.8
77.5°	218.8	122.9	85.5	75.0	52.1	73.0	108.3	95.8	60.5	37.5	33.3
80°	137.6	81.3	50.0	35.5	25.0	39.6	58.3	41.7	23.0	8.3	6.3
82.5°	73.0	41.7	18.8	12.5	10.5	12.5	14.6	10.5	4.2	0.0	0.0
85°	29.2	14.6	6.3	4.2	2.0	0.0	4.2	2.0	0.0	0.0	0.0
87.5°	10.5	2.0	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)