

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: P966861

Luminaire Tested: **NAV-SB4C-835-U-T2-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966861
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4C-835-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3500K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20837.2 lumens
Efficiency: N/A
Efficacy: 103.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

Input Watts (W): 200.7
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



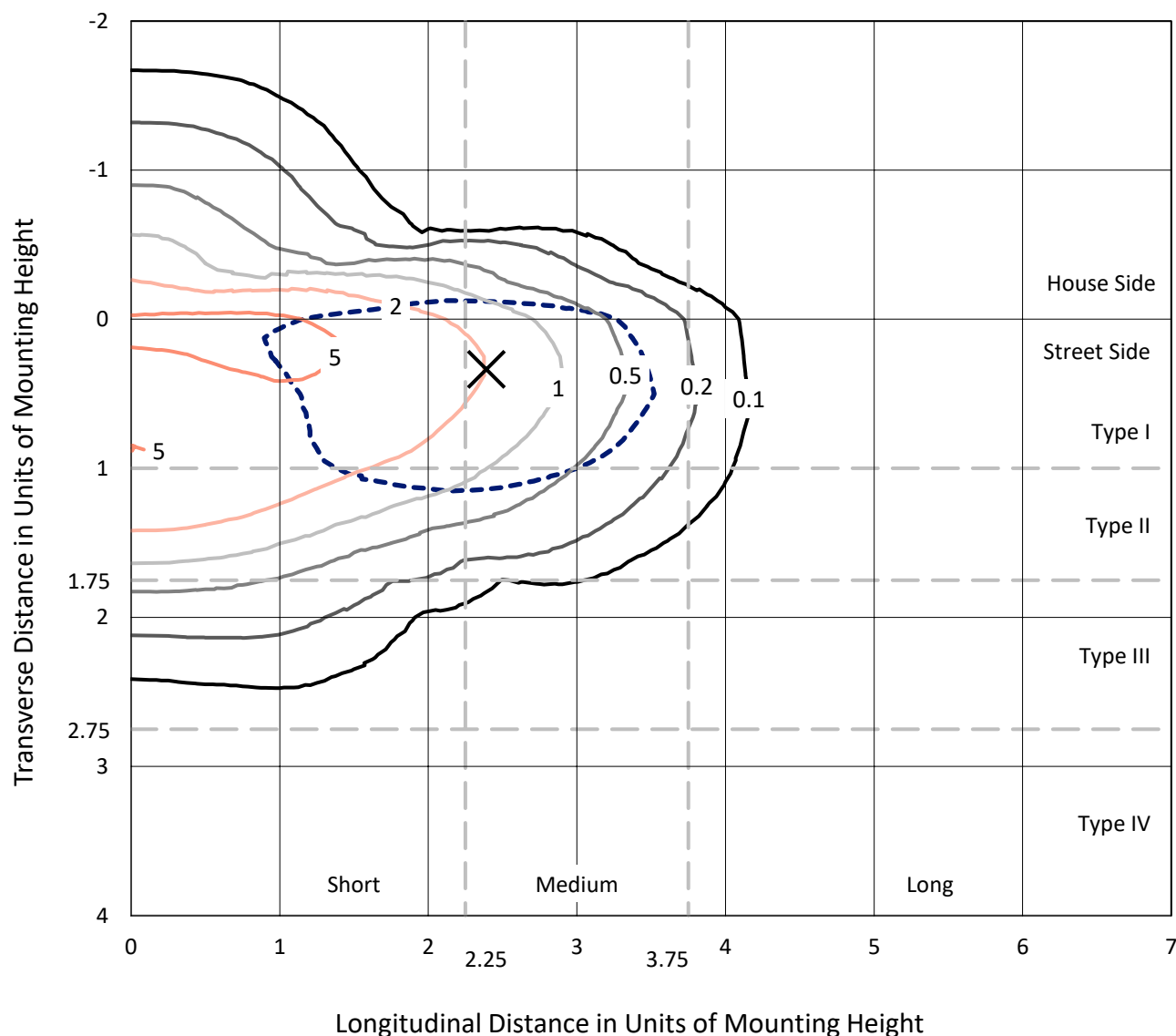
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

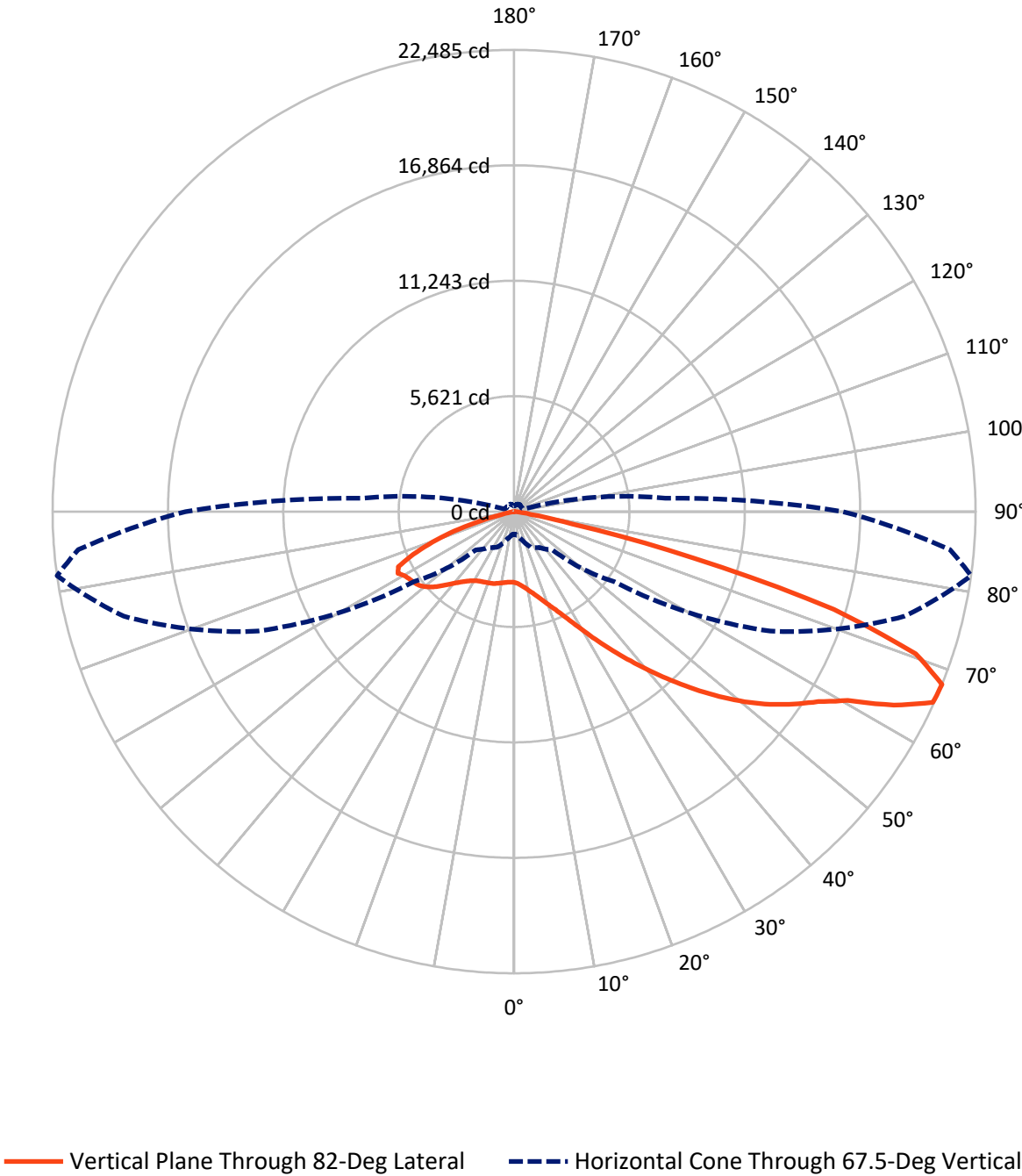
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.3 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	3774.5	0.0	3774.5
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	17062.7	0.0	17062.7
	% Fixture	81.9	0.0	81.9
Total	Lumens	20837.2	0.0	20837.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	307.6	1.5
10°-20°	799.2	3.8
20°-30°	1280.1	6.1
30°-40°	2263.5	10.9
40°-50°	3965.9	19.0
50°-60°	5289.5	25.4
60°-70°	4924.2	23.6
70°-80°	1889.9	9.1
80°-90°	117.4	0.6
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°	20837.2	100.0
0°-180°	20837.2	100.0

Coefficient of Utilization



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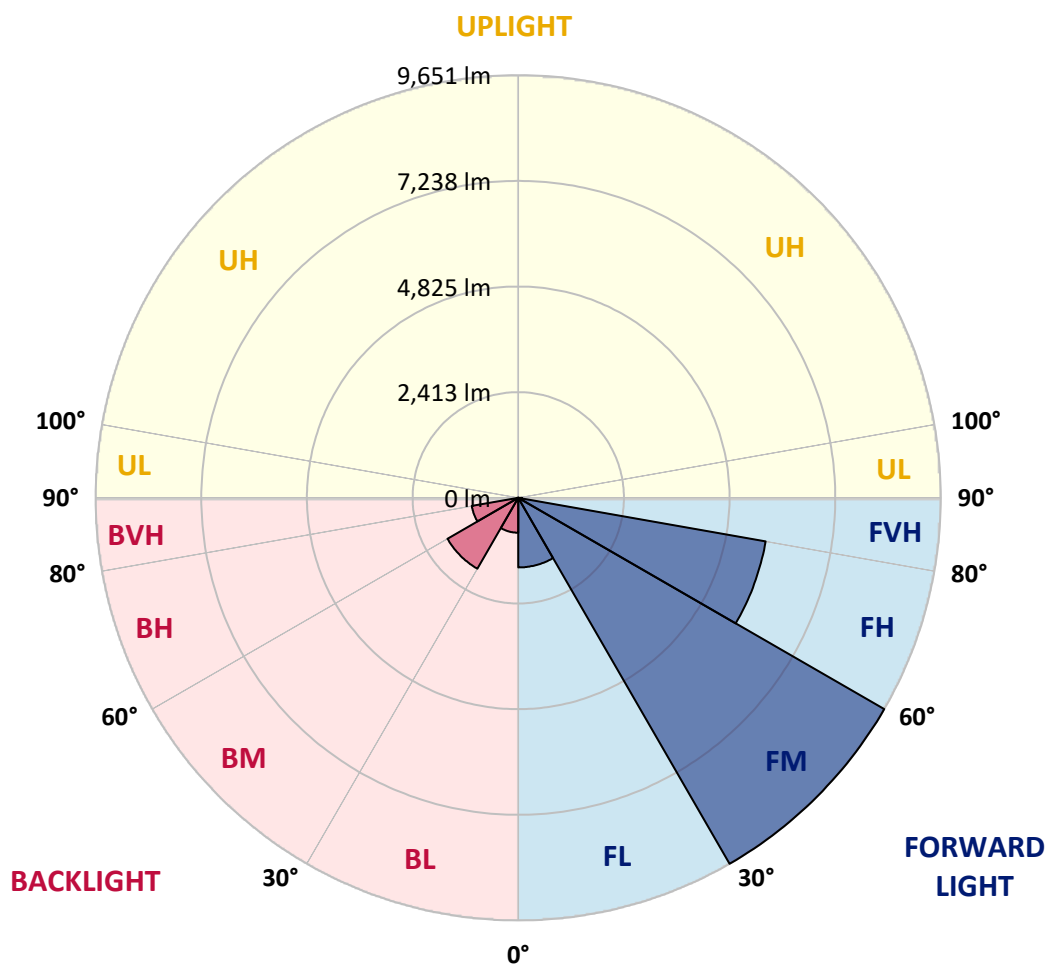
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1589.7	7.6			
FM	(30°-60°)	9651.0	46.3			
FH	(60°-80°)	5736.8	27.5			G3/7500
FVH	(80°-90°)	85.3	0.4			G1/100
BL	(0°-30°)	797.2	3.8	B2/1000		
BM	(30°-60°)	1868.0	9.0	B2/2500		
BH	(60°-80°)	1077.3	5.2	B3/2500		G3/2500
BVH	(80°-90°)	32.0	0.2			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	3452.0	3452.0	3452.0	3452.0	3452.0	3452.0	3452.0	3452.0	3452.0	3452.0	3452.0
2.5°	3648.6	3669.6	3657.5	3651.6	3641.0	3626.0	3614.0	3576.5	3537.6	3512.1	3503.0
5°	3722.1	3743.1	3741.6	3747.6	3755.1	3759.6	3756.5	3714.6	3659.0	3615.6	3590.1
7.5°	3659.0	3683.0	3702.6	3732.5	3785.1	3840.6	3867.6	3858.6	3801.6	3741.6	3710.1
10°	3480.5	3506.0	3552.5	3623.1	3734.1	3854.1	3954.6	4001.1	3965.1	3899.1	3855.5
12.5°	3153.5	3178.9	3270.5	3423.5	3609.5	3818.1	4010.1	4134.6	4143.7	4077.7	4026.6
15°	2786.0	2811.5	2909.0	3100.9	3384.6	3719.1	4040.1	4275.7	4355.1	4298.1	4236.6
17.5°	2557.9	2580.4	2653.9	2808.4	3104.0	3521.1	4029.6	4425.6	4607.2	4562.2	4488.7
20°	2488.9	2508.4	2542.9	2650.9	2897.0	3315.5	3960.6	4566.7	4878.7	4853.3	4770.8
22.5°	2562.4	2580.4	2590.9	2638.9	2793.4	3180.5	3873.6	4710.7	5193.8	5196.8	5096.3
25°	2731.9	2749.9	2737.9	2767.9	2835.5	3138.4	3840.6	4880.2	5589.8	5622.8	5508.9
27.5°	3010.9	3012.5	2984.0	2982.4	2993.0	3201.5	3875.1	5061.8	6089.4	6150.9	6009.9
30°	3570.6	3548.0	3438.6	3320.0	3266.0	3390.5	3971.1	5276.3	6679.0	6788.6	6611.5
32.5°	4433.1	4400.1	4199.1	3915.6	3630.6	3695.0	4143.7	5520.9	7321.1	7519.1	7303.1
35°	5369.4	5360.3	5150.3	4728.7	4230.7	4128.6	4424.2	5841.9	8021.8	8336.7	8080.2
37.5°	6239.5	6235.0	6114.9	5618.3	5012.2	4733.2	4874.3	6261.9	8771.8	9227.9	8924.9
40°	7034.6	7048.1	6928.1	6483.9	5873.4	5508.9	5486.3	6781.0	9606.0	10198.5	9838.5
42.5°	7721.6	7736.7	7615.1	7286.6	6724.0	6367.0	6237.9	7417.1	10420.6	11241.2	10815.2
45°	8188.2	8281.3	8263.2	8000.7	7597.2	7226.6	7141.1	8215.3	11349.2	12346.8	11847.3
47.5°	8320.2	8405.8	8540.8	8576.8	8330.8	7966.2	8068.2	9176.9	12288.3	13454.0	12885.5
50°	7994.7	8074.2	8354.8	8728.3	8899.4	8786.8	8969.9	10207.6	13250.0	14558.2	13904.1
52.5°	7352.6	7433.6	7787.6	8378.8	9076.4	9430.4	9874.5	11223.2	14181.7	15603.9	14868.8
55°	6424.0	6509.5	6964.1	7633.2	8738.8	9696.0	10629.1	12237.4	15035.3	16544.5	15738.9
57.5°	5160.8	5223.8	5696.3	6632.5	7889.7	9431.9	11185.7	13344.5	15839.4	17468.7	16601.5
60°	3363.5	3419.0	3968.1	5012.2	6482.5	8549.8	11296.7	14579.2	16907.6	18670.4	17764.2
62.5°	2236.9	2274.4	2599.9	3366.5	4565.1	6856.0	10647.1	15564.8	18473.8	20761.7	19758.0
65°	1534.7	1572.2	1897.8	2431.9	2949.4	4535.2	8779.3	15434.3	19893.0	22422.4	21235.7
67.5°	1095.2	1126.7	1402.7	1906.8	2134.9	2634.4	5951.4	13766.1	19689.0	22485.4	21315.2
70°	784.6	802.6	1030.6	1485.2	1696.8	1582.7	3309.5	10528.6	17239.1	20763.1	19692.0
72.5°	549.1	555.0	715.7	1131.2	1366.7	1155.2	1575.2	7019.6	13038.5	16297.0	15266.4
75°	372.1	379.6	481.5	829.6	1096.6	882.1	834.1	3764.1	7654.2	9020.8	8086.2
77.5°	228.1	231.0	310.6	567.1	820.6	672.1	537.1	1594.7	2961.4	2907.4	2478.3
80°	129.0	129.0	198.0	352.6	559.5	433.6	376.6	678.1	937.7	823.6	726.1
82.5°	72.1	73.5	144.0	219.0	370.5	256.6	207.0	313.5	405.1	358.5	312.0
85°	30.0	33.0	88.6	103.5	177.0	127.5	84.0	132.0	150.1	133.6	97.5
87.5°	3.0	4.5	27.0	19.5	21.0	25.5	12.0	25.5	21.0	21.0	15.0
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°	3452.0	3452.0	3452.0	3452.0	3452.0	3452.0	3452.0	3452.0	3452.0	3452.0	3452.0
2.5°	3474.5	3452.0	3395.0	3329.0	3242.0	3199.9	3143.0	3104.0	3071.0	3074.0	3043.9
5°	3542.0	3485.0	3357.5	3198.5	3000.5	2859.4	2709.4	2605.9	2521.9	2503.9	2463.4
7.5°	3635.1	3545.1	3321.5	3034.9	2700.4	2446.9	2220.4	2074.8	1971.3	1938.3	1905.3
10°	3755.1	3624.5	3275.0	2829.4	2347.9	2025.3	1782.3	1668.3	1597.8	1573.8	1555.7
12.5°	3894.6	3716.0	3213.5	2578.9	1984.8	1674.2	1519.8	1462.7	1440.2	1432.7	1428.2
15°	4070.1	3830.1	3120.5	2281.9	1677.2	1459.7	1393.7	1386.2	1389.2	1386.2	1384.7
17.5°	4278.7	3954.6	2968.9	1975.8	1470.3	1350.2	1326.2	1332.2	1339.7	1338.2	1335.2
20°	4506.7	4077.7	2775.4	1704.3	1329.2	1272.2	1258.7	1264.6	1270.7	1267.7	1266.2
22.5°	4766.2	4209.7	2560.9	1492.7	1234.7	1200.2	1185.2	1186.6	1186.6	1180.7	1177.7
25°	5076.7	4355.1	2335.9	1342.7	1162.7	1135.7	1117.7	1111.7	1102.7	1084.7	1081.7
27.5°	5447.4	4509.7	2119.8	1237.7	1105.7	1080.1	1059.1	1044.2	1021.6	991.7	988.6
30°	5864.4	4697.2	1936.8	1171.7	1060.7	1035.1	1011.2	988.6	955.6	918.1	915.1
32.5°	6355.0	4898.3	1803.3	1128.2	1020.2	993.1	964.6	937.7	901.6	864.2	865.6
35°	6940.1	5141.3	1725.3	1098.2	988.6	952.6	921.2	891.1	864.2	831.2	828.1
37.5°	7574.6	5399.3	1701.3	1083.1	967.6	912.1	876.2	855.2	852.1	832.6	831.2
40°	8269.3	5705.4	1719.2	1074.2	945.2	873.1	834.1	829.6	837.1	802.6	804.1
42.5°	9004.3	6068.4	1749.3	1063.6	913.7	834.1	796.6	796.6	790.6	742.6	742.6
45°	9799.5	6487.0	1779.3	1038.1	876.2	795.1	766.6	756.1	730.6	684.1	682.6
47.5°	10600.7	6913.0	1801.7	991.7	831.2	762.1	736.6	712.6	675.1	633.1	631.6
50°	11361.2	7295.6	1777.8	922.6	780.1	730.6	703.6	670.6	630.1	601.6	597.1
52.5°	12040.8	7627.1	1675.8	841.6	726.1	697.6	673.6	639.1	606.1	576.0	573.1
55°	12631.9	7895.7	1495.7	765.2	678.1	669.1	645.1	601.6	556.6	531.1	528.1
57.5°	13199.0	8099.8	1270.7	702.1	634.6	637.6	601.6	562.6	520.6	493.5	490.6
60°	13953.6	8372.8	1042.6	643.6	588.0	597.1	558.1	529.6	477.0	442.6	438.1
62.5°	15159.7	8797.4	828.1	571.5	534.1	537.1	520.6	486.1	423.0	382.5	379.6
65°	16116.9	8641.3	652.6	493.5	472.5	477.0	477.0	439.5	372.1	325.5	321.0
67.5°	16009.0	7399.2	520.6	417.1	414.1	417.1	427.5	396.1	330.0	292.5	286.6
70°	14747.2	5885.3	417.1	346.6	360.1	352.6	382.5	361.5	297.0	259.5	255.0
72.5°	12033.3	4239.6	318.1	286.6	276.0	288.0	345.0	325.5	247.5	205.5	201.0
75°	7031.6	2262.4	237.1	226.5	199.6	240.1	306.1	277.6	189.0	151.5	147.0
77.5°	2289.3	789.1	174.0	166.6	148.5	193.5	261.1	234.0	154.6	120.0	115.5
80°	613.6	238.5	118.5	109.5	96.0	144.0	207.0	186.0	111.0	78.0	76.5
82.5°	246.0	100.6	69.0	61.5	52.5	99.0	163.5	150.1	82.5	49.5	49.5
85°	79.5	33.0	25.5	19.5	24.0	61.5	97.5	102.0	58.5	25.5	19.5
87.5°	10.5	4.5	4.5	6.0	4.5	10.5	30.0	28.5	16.5	3.0	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)