

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: P883476

Luminaire Tested: **NAV-SB3D-830-U-T2-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P883476  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB3D-830-U-T2-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(3) 80 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

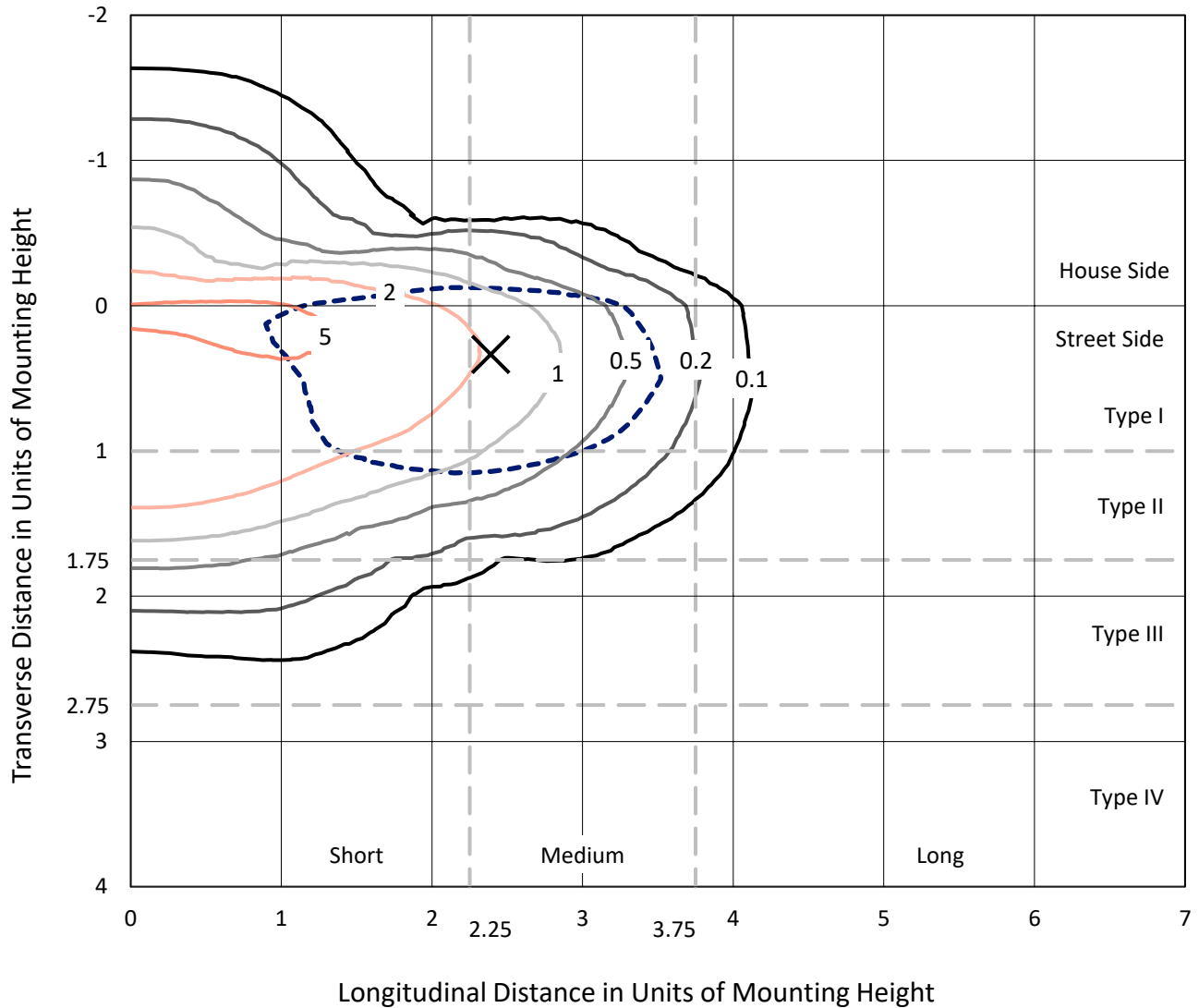
Lumens per Lamp: N/A  
Luminaire Lumens: 19502 lumens  
Efficiency: N/A  
Efficacy: 89.4 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B3 - U0 - G3  
  
Input Watts (W): 218.1  
Input Voltage (V): 120.0  
Input Current (Ain): 1.84  
Voltage Rise (V): NR  
Power Factor: 0.998  
Total Harmonic Distortion (THDi): 2.542  
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

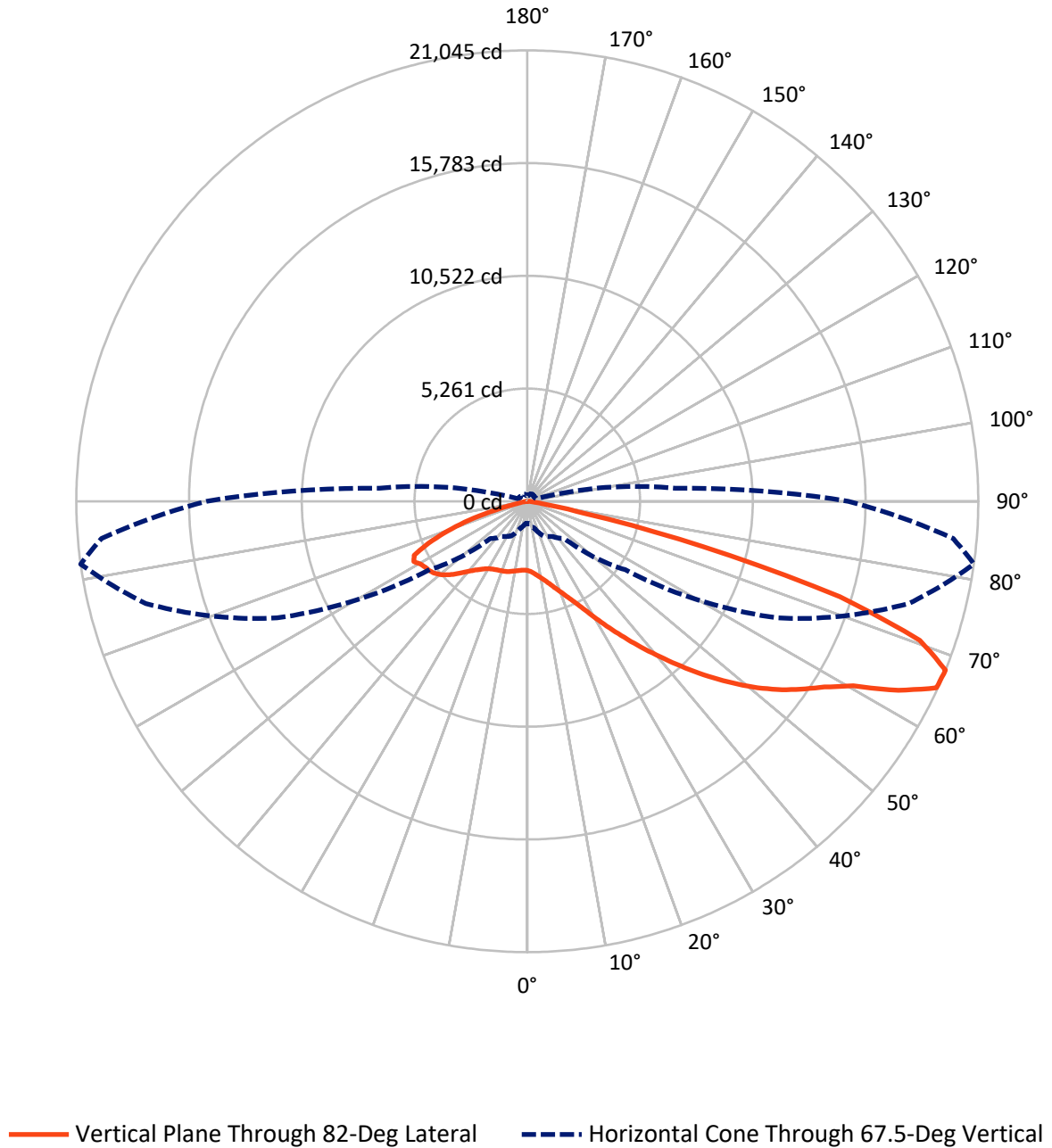
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.8 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3532.6	0.0	3532.6
	% Fixture	18.1	0.0	18.1
<b>Street Side</b>	Lumens	15969.4	0.0	15969.4
	% Fixture	81.9	0.0	81.9
<b>Total</b>	Lumens	19502.0	0.0	19502.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	287.8	1.5
10°-20°	748.0	3.8
20°-30°	1198.0	6.1
30°-40°	2118.5	10.9
40°-50°	3711.8	19.0
50°-60°	4950.5	25.4
60°-70°	4608.7	23.6
70°-80°	1768.8	9.1
80°-90°	109.9	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°	19502.0	100.0
0°-180°	19502.0	100.0

**Coefficient of Utilization**



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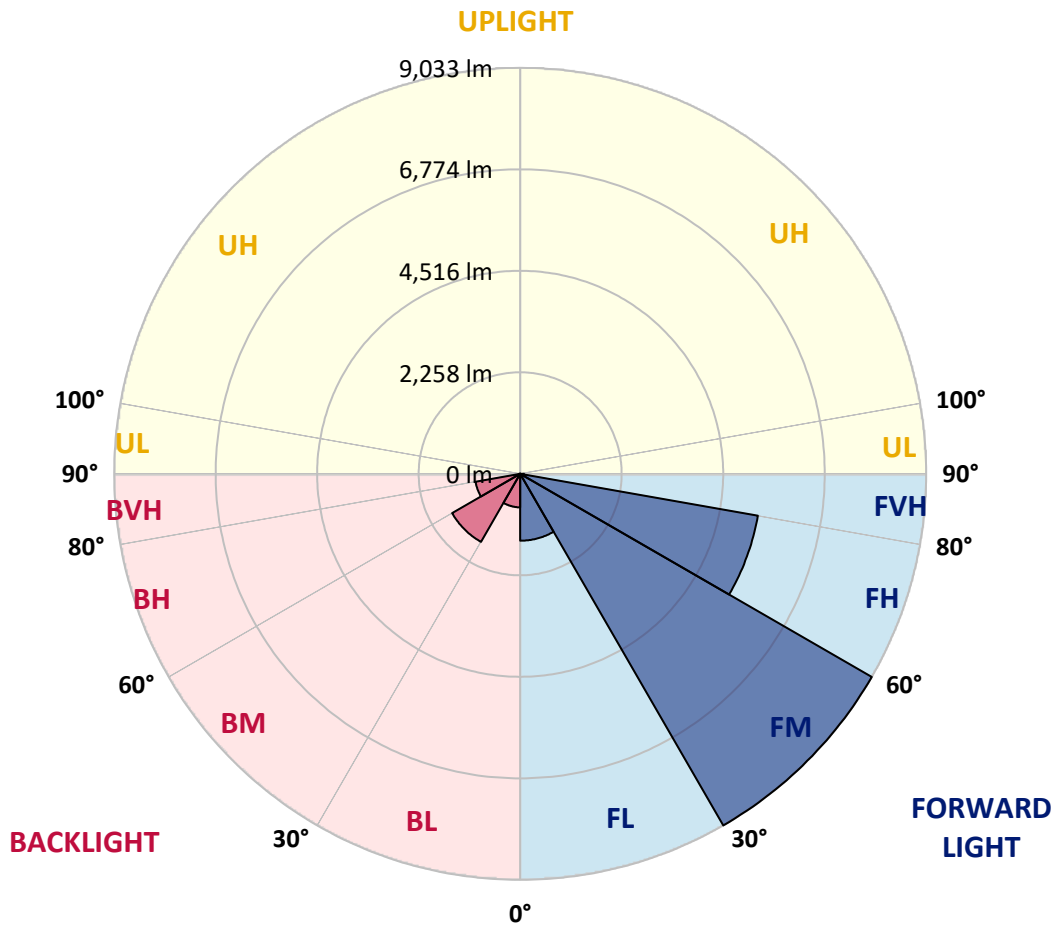
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1487.8	7.6			
FM (30°-60°)	9032.5	46.3			
FH (60°-80°)	5369.2	27.5			G3/7500
FVH (80°-90°)	79.9	0.4			G1/100
BL (0°-30°)	746.1	3.8	B2/1000		
BM (30°-60°)	1748.3	9.0	B2/2500		
BH (60°-80°)	1008.3	5.2	B3/2500		G3/2500
BVH (80°-90°)	30.0	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°	3230.8	3230.8	3230.8	3230.8	3230.8	3230.8	3230.8	3230.8	3230.8	3230.8	3230.8
2.5°	3414.8	3434.4	3423.2	3417.6	3407.7	3393.7	3382.5	3347.4	3310.9	3287.0	3278.6
5°	3483.6	3503.2	3501.8	3507.4	3514.4	3518.7	3515.9	3476.5	3424.6	3383.9	3360.0
7.5°	3424.6	3447.1	3465.3	3493.4	3542.5	3594.5	3619.8	3611.3	3558.0	3501.8	3472.3
10°	3257.5	3281.4	3324.9	3390.9	3494.8	3607.1	3701.2	3744.7	3711.0	3649.2	3608.5
12.5°	2951.4	2975.3	3060.9	3204.1	3378.3	3573.4	3753.1	3869.7	3878.1	3816.3	3768.6
15°	2607.4	2631.3	2722.5	2902.3	3167.6	3480.8	3781.2	4001.7	4076.1	4022.7	3965.2
17.5°	2394.0	2415.0	2483.8	2628.5	2905.1	3295.4	3771.4	4142.1	4312.0	4269.9	4201.1
20°	2329.4	2347.6	2379.9	2481.0	2711.3	3103.0	3706.8	4274.1	4566.1	4542.2	4465.0
22.5°	2398.2	2415.0	2424.9	2469.8	2614.4	2976.7	3625.4	4408.9	4861.0	4863.8	4769.7
25°	2556.9	2573.7	2562.5	2590.6	2653.7	2937.4	3594.5	4567.5	5231.7	5262.5	5155.8
27.5°	2818.0	2819.4	2792.7	2791.3	2801.2	2996.3	3626.8	4737.4	5699.2	5756.8	5624.8
30°	3341.7	3320.7	3218.2	3107.3	3056.7	3173.3	3716.6	4938.2	6251.0	6353.5	6187.8
32.5°	4149.1	4118.2	3930.1	3664.7	3397.9	3458.3	3878.1	5167.1	6852.0	7037.3	6835.1
35°	5025.3	5016.8	4820.3	4425.7	3959.5	3864.1	4140.7	5467.5	7507.7	7802.6	7562.5
37.5°	5839.6	5835.4	5723.1	5258.3	4691.1	4429.9	4561.9	5860.7	8209.7	8636.6	8353.0
40°	6583.8	6596.4	6484.1	6068.5	5497.0	5155.8	5134.8	6346.5	8990.4	9545.0	9208.1
42.5°	7226.9	7240.9	7127.2	6819.7	6293.2	5959.0	5838.2	6941.8	9752.8	10520.9	10122.1
45°	7663.5	7750.6	7733.8	7488.0	7110.3	6763.5	6683.5	7688.8	10622.0	11555.7	11088.1
47.5°	7787.1	7867.1	7993.5	8027.2	7796.9	7455.7	7551.2	8588.8	11500.9	12591.9	12059.8
50°	7482.4	7556.8	7819.4	8169.0	8329.1	8223.8	8395.1	9553.5	12401.0	13625.3	13013.1
52.5°	6881.5	6957.3	7288.7	7841.9	8494.8	8826.1	9241.7	10504.0	13272.9	14604.0	13916.0
55°	6012.3	6092.4	6517.8	7144.0	8178.9	9074.7	9948.0	11453.2	14071.8	15484.4	14730.4
57.5°	4830.1	4889.1	5331.3	6207.5	7384.1	8827.5	10468.9	12489.4	14824.4	16349.3	15537.7
60°	3148.0	3199.9	3713.8	4691.1	6067.1	8001.9	10572.8	13645.0	15824.1	17474.0	16625.9
62.5°	2093.5	2128.6	2433.3	3150.8	4272.7	6416.7	9964.9	14567.5	17290.0	19431.3	18491.9
65°	1436.4	1471.5	1776.2	2276.0	2760.4	4244.6	8216.8	14445.3	18618.3	20985.6	19875.0
67.5°	1025.0	1054.5	1312.8	1784.6	1998.0	2465.6	5570.0	12884.0	18427.3	21044.6	19949.4
70°	734.3	751.2	964.6	1390.1	1588.0	1481.3	3097.4	9853.9	16134.4	19432.7	18430.1
72.5°	513.9	519.5	669.8	1058.7	1279.1	1081.2	1474.3	6569.8	12203.0	15252.7	14288.1
75°	348.2	355.2	450.7	776.5	1026.4	825.6	780.7	3522.9	7163.7	8442.8	7568.1
77.5°	213.4	216.2	290.6	530.7	768.0	629.0	502.7	1492.6	2771.7	2721.1	2319.6
80°	120.8	120.8	185.3	330.0	523.7	405.8	352.4	634.7	877.6	770.8	679.6
82.5°	67.4	68.8	134.8	205.0	346.8	240.1	193.8	293.5	379.1	335.6	292.1
85°	28.1	30.9	82.8	96.9	165.7	119.3	78.6	123.6	140.4	125.0	91.3
87.5°	2.8	4.2	25.3	18.3	19.7	23.9	11.2	23.9	19.7	19.7	14.0
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°	3230.8	3230.8	3230.8	3230.8	3230.8	3230.8	3230.8	3230.8	3230.8	3230.8	3230.8
2.5°	3251.9	3230.8	3177.5	3115.7	3034.2	2994.9	2941.6	2905.1	2874.2	2877.0	2848.9
5°	3315.1	3261.7	3142.4	2993.5	2808.2	2676.2	2535.8	2438.9	2360.3	2343.4	2305.5
7.5°	3402.1	3317.9	3108.7	2840.5	2527.4	2290.1	2078.1	1941.9	1845.0	1814.1	1783.2
10°	3514.4	3392.3	3065.1	2648.1	2197.4	1895.5	1668.1	1561.4	1495.4	1472.9	1456.0
12.5°	3645.0	3477.9	3007.6	2413.6	1857.6	1567.0	1422.3	1369.0	1347.9	1340.9	1336.7
15°	3809.3	3584.7	2920.5	2135.6	1569.8	1366.2	1304.4	1297.4	1300.2	1297.4	1296.0
17.5°	4004.5	3701.2	2778.7	1849.2	1376.0	1263.7	1241.2	1246.8	1253.9	1252.5	1249.6
20°	4217.9	3816.3	2597.6	1595.1	1244.0	1190.7	1178.0	1183.7	1189.3	1186.5	1185.1
22.5°	4460.8	3939.9	2396.8	1397.1	1155.6	1123.3	1109.2	1110.6	1110.6	1105.0	1102.2
25°	4751.5	4076.1	2186.2	1256.7	1088.2	1062.9	1046.1	1040.4	1032.0	1015.2	1012.4
27.5°	5098.3	4220.7	1984.0	1158.4	1034.8	1010.9	991.3	977.2	956.2	928.1	925.3
30°	5488.6	4396.2	1812.7	1096.6	992.7	968.8	946.4	925.3	894.4	859.3	856.5
32.5°	5947.7	4584.4	1687.7	1055.9	954.8	929.5	902.8	877.6	843.9	808.8	810.2
35°	6495.3	4811.8	1614.7	1027.8	925.3	891.6	862.1	834.0	808.8	777.9	775.1
37.5°	7089.3	5053.3	1592.2	1013.8	905.6	853.7	820.0	800.3	797.5	779.3	777.9
40°	7739.4	5339.8	1609.1	1005.3	884.6	817.2	780.7	776.5	783.5	751.2	752.6
42.5°	8427.4	5679.6	1637.2	995.5	855.1	780.7	745.6	745.6	740.0	695.0	695.0
45°	9171.5	6071.3	1665.3	971.6	820.0	744.2	717.5	707.7	683.8	640.3	638.9
47.5°	9921.3	6470.1	1686.3	928.1	777.9	713.3	689.4	666.9	631.8	592.5	591.1
50°	10633.2	6828.1	1663.9	863.5	730.1	683.8	658.5	627.6	589.7	563.0	558.8
52.5°	11269.3	7138.4	1568.4	787.7	679.6	652.9	630.4	598.1	567.3	539.2	536.4
55°	11822.5	7389.7	1399.9	716.1	634.7	626.2	603.8	563.0	520.9	497.0	494.2
57.5°	12353.2	7580.7	1189.3	657.1	593.9	596.7	563.0	526.5	487.2	461.9	459.1
60°	13059.5	7836.3	975.8	602.4	550.4	558.8	522.3	495.6	446.5	414.2	410.0
62.5°	14188.4	8233.6	775.1	535.0	499.9	502.7	487.2	454.9	396.0	358.0	355.2
65°	15084.2	8087.6	610.8	461.9	442.3	446.5	446.5	411.4	348.2	304.7	300.5
67.5°	14983.1	6925.0	487.2	390.3	387.5	390.3	400.2	370.7	308.9	273.8	268.2
70°	13802.2	5508.3	390.3	324.3	337.0	330.0	358.0	338.4	278.0	242.9	238.7
72.5°	11262.2	3968.0	297.7	268.2	258.4	269.6	322.9	304.7	231.7	192.4	188.1
75°	6581.0	2117.4	221.8	212.0	186.7	224.7	286.4	259.8	176.9	141.8	137.6
77.5°	2142.6	738.6	162.9	155.9	139.0	181.1	244.3	219.0	144.6	112.3	108.1
80°	574.3	223.3	110.9	102.5	89.9	134.8	193.8	174.1	103.9	73.0	71.6
82.5°	230.3	94.1	64.6	57.6	49.1	92.7	153.0	140.4	77.2	46.3	46.3
85°	74.4	30.9	23.9	18.3	22.5	57.6	91.3	95.5	54.8	23.9	18.3
87.5°	9.8	4.2	4.2	5.6	4.2	9.8	28.1	26.7	15.4	2.8	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)