

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: P965250

Luminaire Tested: **NAV-SB3D-830-U-T2R-HSS**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P965250  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-4)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB3D-830-U-T2R-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(3) 80 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II  
ROADWAY OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 23808.7 lumens  
Efficiency: N/A  
Efficacy: 109.2 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B1 - U0 - G3

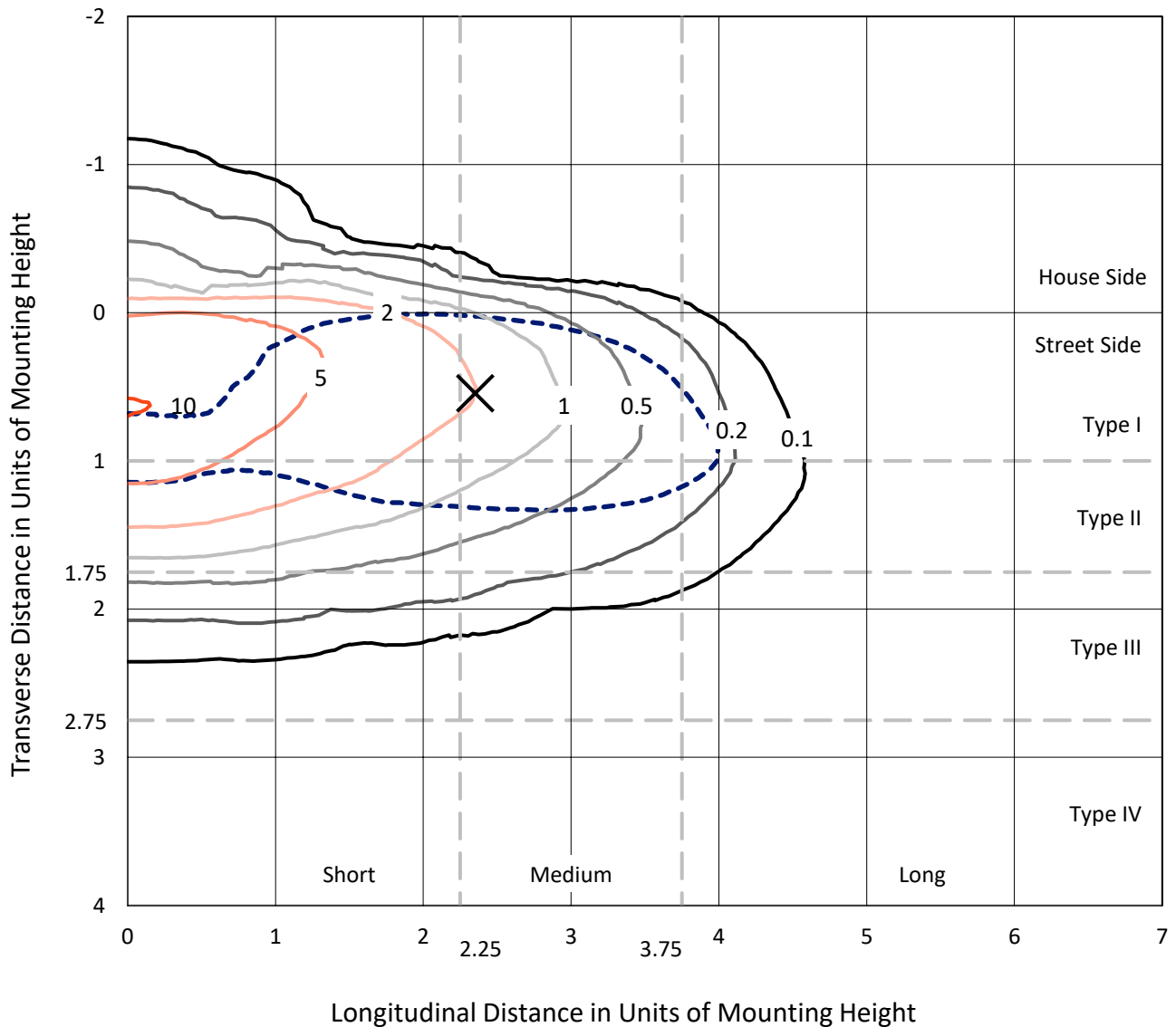
Input Watts (W): 218.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

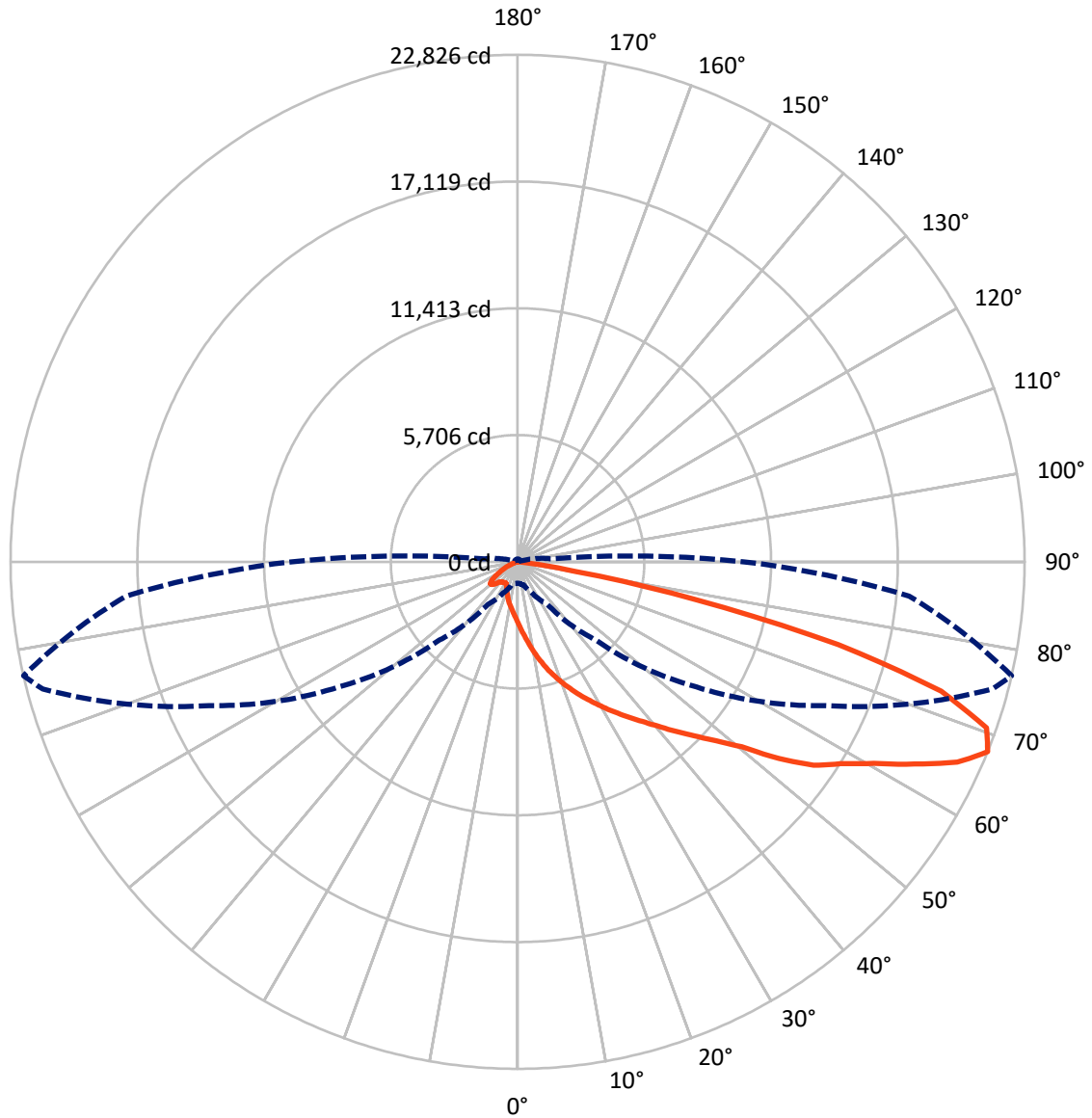
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.3 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 77-Deg Lateral      - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1751.6	0.0	1751.6
	% Fixture	7.4	0.0	7.4
<b>Street Side</b>	Lumens	22057.1	0.0	22057.1
	% Fixture	92.6	0.0	92.6
<b>Total</b>	Lumens	23808.7	0.0	23808.7
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	280.2	1.2
10°-20°	981.3	4.1
20°-30°	1893.6	8.0
30°-40°	3287.5	13.8
40°-50°	4773.2	20.0
50°-60°	5481.5	23.0
60°-70°	4758.9	20.0
70°-80°	2241.5	9.4
80°-90°	110.9	0.5
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°	23808.7	100.0
0°-180°	23808.7	100.0

**Coefficient of Utilization**

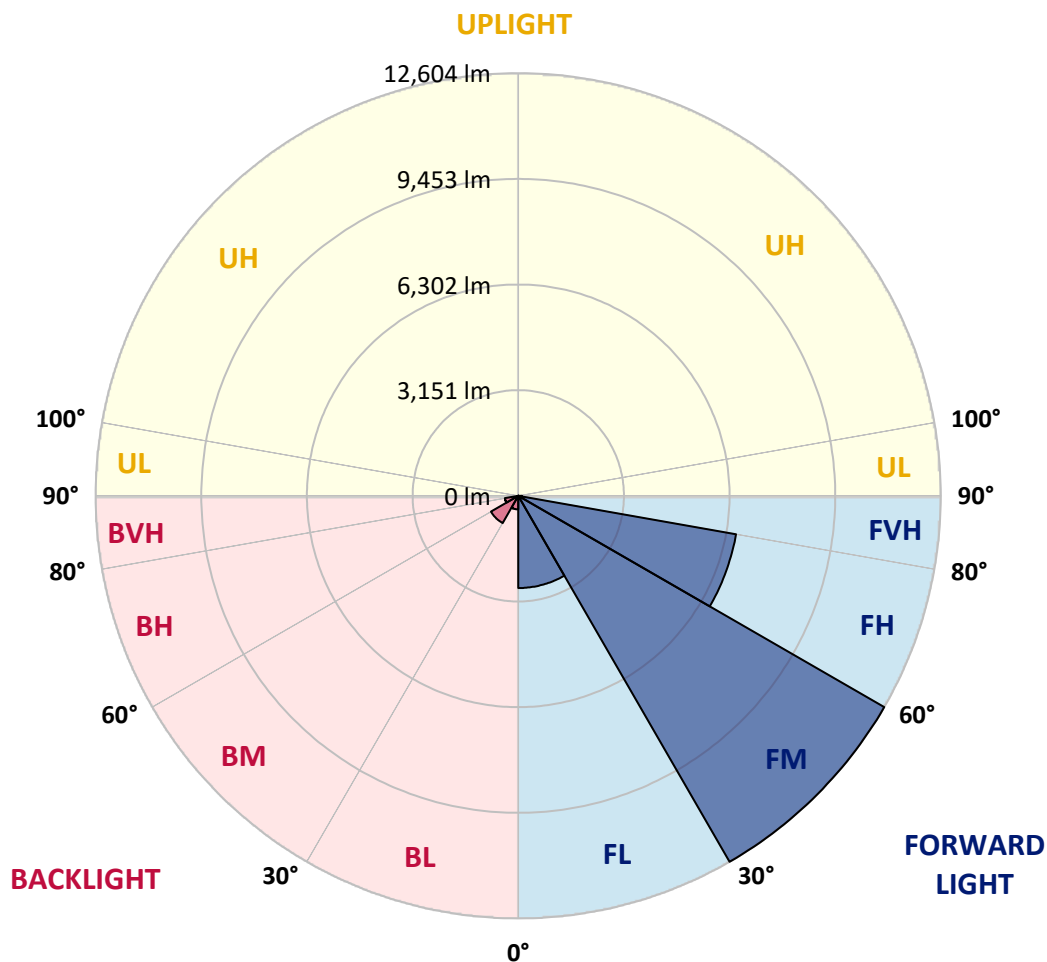


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2749.6	11.5			
FM (30°-60°)	12603.7	52.9			
FH (60°-80°)	6594.9	27.7			G3/7500
FVH (80°-90°)	108.8	0.5			G2/225
BL (0°-30°)	405.5	1.7	B1/500		
BM (30°-60°)	938.5	3.9	B1/1000		
BH (60°-80°)	405.5	1.7	B1/500		G1/500
BVH (80°-90°)	2.0	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G3**  
 Type II Medium



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	2745.5	2745.5	2745.5	2745.5	2745.5	2745.5	2745.5	2745.5	2745.5	2745.5	2745.5
2.5°	3801.1	3824.8	3790.8	3725.7	3628.1	3564.5	3409.4	3263.0	3100.3	3048.6	2886.0
5°	4633.5	4654.2	4615.8	4544.7	4414.7	4290.4	4086.5	3780.4	3462.6	3360.6	3072.2
7.5°	5249.9	5261.8	5247.1	5182.0	5057.8	4917.3	4689.7	4327.4	3855.8	3743.4	3301.4
10°	5693.6	5732.0	5727.5	5702.4	5619.6	5505.8	5263.3	4850.8	4296.4	4151.5	3560.1
12.5°	5987.7	6030.6	6055.8	6112.0	6107.5	6035.1	5822.2	5386.0	4735.5	4565.5	3851.3
15°	6073.5	6119.4	6215.4	6345.6	6460.9	6497.8	6348.4	5910.9	5219.0	5001.6	4150.0
17.5°	6024.7	6095.7	6211.0	6416.5	6669.3	6836.3	6820.1	6417.9	5658.1	5409.6	4442.8
20°	6132.7	6200.6	6290.8	6463.9	6758.0	7061.1	7182.4	6902.9	6094.2	5834.0	4750.3
22.5°	6729.9	6718.1	6727.0	6755.1	6931.0	7231.2	7481.0	7343.5	6525.9	6259.8	5075.5
25°	7676.1	7622.9	7532.7	7380.4	7336.1	7481.0	7741.2	7733.8	6981.3	6695.9	5408.2
27.5°	8761.3	8752.5	8541.0	8174.4	7967.4	7911.3	8035.4	8113.8	7432.2	7127.6	5742.4
30°	9800.6	9824.3	9539.0	9130.9	8750.9	8530.7	8418.3	8474.5	7890.6	7593.3	6086.8
32.5°	10705.5	10730.6	10420.2	9942.6	9472.4	9206.3	8969.8	8830.8	8390.2	8066.4	6465.3
35°	11469.9	11495.0	11138.7	10610.9	10109.7	9868.7	9601.1	9221.1	8892.9	8591.3	6886.7
37.5°	12152.9	12145.5	11668.0	11135.7	10643.4	10452.6	10312.2	9701.6	9410.4	9119.1	7353.9
40°	12556.6	12587.6	12179.6	11592.5	11115.0	10976.0	10967.2	10297.5	10007.7	9725.3	7865.3
42.5°	12674.8	12729.5	12433.9	11951.8	11518.6	11367.9	11599.9	10942.1	10702.5	10427.5	8443.4
45°	12461.9	12515.1	12380.6	12046.4	11793.6	11696.1	12144.0	11610.3	11444.7	11172.7	9095.4
47.5°	11841.0	11907.5	11940.0	11869.1	11866.1	11965.1	12631.9	12314.0	12325.9	12048.0	9851.0
50°	10639.0	10751.3	11050.0	11301.3	11690.1	12178.0	13106.5	13076.9	13319.4	13079.9	10835.6
52.5°	8453.8	8613.5	9642.5	10329.9	11203.8	12138.2	13628.4	14301.1	15062.5	14712.1	12223.8
55°	6793.5	6793.5	7630.3	8916.6	10254.6	11874.9	13856.1	15096.5	16249.7	16166.9	13201.2
57.5°	5538.3	5604.8	6138.5	7275.4	8881.1	11248.1	13996.6	15596.2	17206.3	17145.7	14156.2
60°	3418.2	3561.6	4569.9	5692.0	7318.4	10131.8	13907.8	16101.8	18366.9	18415.7	15306.4
62.5°	1925.0	1978.1	2427.6	4095.3	5690.6	8631.2	13229.3	16384.2	19851.3	20058.2	16492.1
65°	1329.1	1355.8	1528.7	2548.9	3944.5	6871.9	11903.0	16208.3	21338.6	21757.0	17497.6
67.5°	965.4	978.8	1086.7	1556.8	2340.4	4982.4	9824.3	15321.3	22126.6	22825.9	17689.8
70°	742.2	751.0	829.4	1023.1	1382.3	3075.2	7135.0	13557.5	21555.9	22391.2	16705.0
72.5°	603.2	612.1	672.7	757.0	916.7	1818.5	4324.5	11010.0	19036.6	19938.5	14221.3
75°	508.6	520.4	575.1	629.9	718.5	1168.0	2028.5	7667.3	14315.9	14907.3	9889.4
77.5°	282.4	260.2	467.2	521.9	606.2	739.2	949.1	4512.3	8017.7	8181.8	4388.0
80°	175.9	181.8	371.0	419.8	465.8	372.6	434.7	1737.2	2779.5	2640.5	850.1
82.5°	10.4	23.7	285.4	303.1	319.4	159.7	164.1	589.9	669.7	615.0	150.8
85°	0.0	0.0	130.1	105.0	110.9	45.8	47.4	137.5	90.2	97.6	29.5
87.5°	0.0	0.0	0.0	3.0	0.0	4.4	8.9	11.8	4.4	5.9	10.4
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°	2745.5	2745.5	2745.5	2745.5	2745.5	2745.5	2745.5	2745.5	2745.5	2745.5	2745.5
2.5°	2782.5	2678.9	2469.0	2263.5	2096.4	1941.2	1830.3	1725.4	1672.2	1669.2	1666.2
5°	2866.7	2649.4	2229.5	1858.4	1559.7	1320.3	1165.0	1054.1	997.9	978.8	975.8
7.5°	2985.0	2658.2	2019.6	1503.6	1151.7	946.2	857.5	822.0	810.2	796.9	794.0
10°	3134.3	2678.9	1831.8	1210.8	907.7	804.3	768.7	754.0	745.2	736.3	733.3
12.5°	3301.4	2698.2	1645.5	1005.3	798.4	745.2	720.0	702.2	690.4	680.1	677.1
15°	3464.0	2710.0	1451.8	861.9	742.2	699.4	672.7	653.4	637.2	625.4	623.9
17.5°	3625.2	2726.3	1270.0	776.2	696.4	653.4	626.9	603.2	589.9	576.6	575.1
20°	3804.1	2723.3	1098.5	715.6	650.6	607.6	579.5	557.4	544.1	529.3	527.8
22.5°	3969.6	2708.6	947.7	663.8	603.2	561.8	530.7	508.6	495.3	483.5	482.0
25°	4160.4	2696.7	822.0	616.5	558.8	517.4	483.5	462.8	447.9	437.6	436.1
27.5°	4343.7	2678.9	730.3	573.6	516.0	476.1	443.5	419.8	406.6	399.1	399.1
30°	4524.0	2674.5	696.4	532.3	477.5	437.6	405.1	382.9	372.6	369.6	368.2
32.5°	4741.4	2686.3	711.1	517.4	442.1	402.1	371.0	354.9	344.5	344.5	344.5
35°	4973.5	2683.3	733.3	530.7	418.4	366.6	343.0	332.6	322.3	322.3	322.3
37.5°	5264.8	2687.9	751.0	553.0	409.5	337.1	323.8	310.5	304.5	304.5	304.5
40°	5699.4	2834.2	742.2	572.2	406.6	316.4	289.8	285.4	281.0	281.0	281.0
42.5°	6231.7	3152.1	754.0	573.6	405.1	301.6	266.1	275.0	264.7	263.1	261.7
45°	6814.2	3499.6	829.4	542.6	403.6	294.2	254.3	264.7	248.4	248.4	248.4
47.5°	7392.3	3844.0	906.3	498.3	399.1	292.7	244.0	238.0	233.6	235.0	235.0
50°	8189.1	4124.9	935.8	437.6	388.9	289.8	224.7	226.2	223.2	226.2	226.2
52.5°	9057.0	4184.0	900.4	369.6	359.3	281.0	211.5	217.3	215.9	218.8	218.8
55°	9598.1	4120.5	743.6	307.5	313.4	245.4	198.1	209.9	209.9	209.9	209.9
57.5°	10157.0	3849.9	527.8	249.9	260.2	201.1	186.2	202.5	201.1	199.6	199.6
60°	10559.1	3412.3	347.5	205.5	206.9	165.5	173.0	190.8	189.2	181.8	181.8
62.5°	10859.3	2928.8	223.2	174.5	158.2	149.3	158.2	173.0	167.1	150.8	147.8
65°	10825.2	2259.1	171.5	149.3	130.1	130.1	137.5	150.8	133.0	106.5	103.5
67.5°	10193.9	1528.7	142.0	125.7	109.4	107.9	113.9	125.7	113.9	90.2	87.2
70°	9065.9	999.5	113.9	97.6	87.2	79.8	91.6	107.9	96.1	72.5	69.5
72.5°	7358.3	609.2	85.8	70.9	63.6	51.8	72.5	88.7	76.9	53.2	50.2
75°	4760.6	310.5	59.1	45.8	34.0	31.1	53.2	66.5	53.2	32.5	28.1
77.5°	1821.4	130.1	32.5	20.7	17.7	14.8	29.5	39.9	22.1	7.4	5.9
80°	350.3	54.7	16.3	10.4	8.9	5.9	4.4	3.0	0.0	0.0	0.0
82.5°	60.6	17.7	5.9	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	20.7	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	7.4	0.0	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)