

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: P967389

Luminaire Tested: **NAV-SB4D-835-U-T2R-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967389
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-SB4D-835-U-T2R-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3500K, 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: 32828.7 lumens
Efficiency: N/A
Efficacy: 111.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G4

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

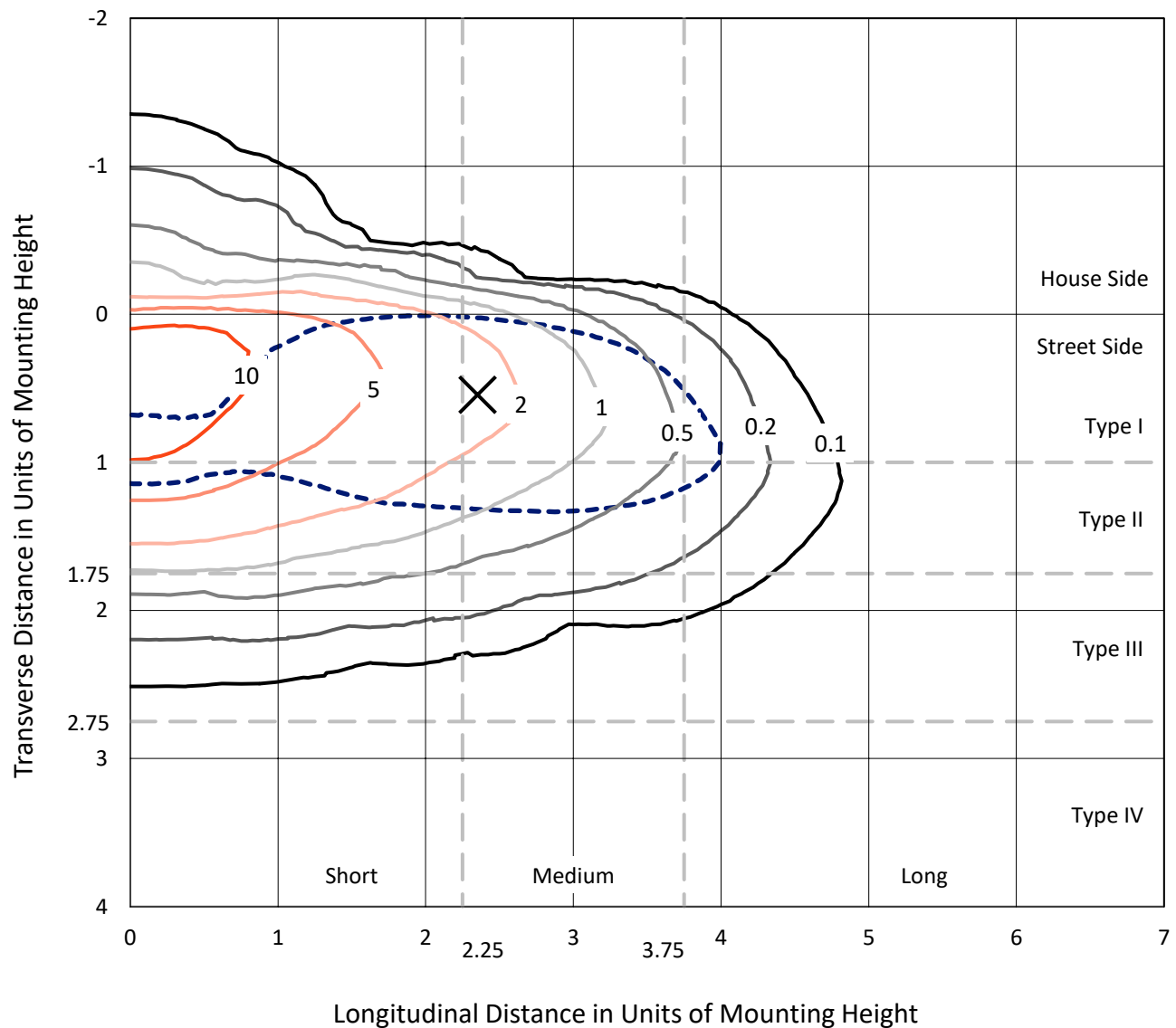


REPORT NUMBER: P967389

CATALOG NUMBER: NAV-SB4D-835-U-T2R-HSS

Iso-Footcandle Lines of Horizontal Illumination

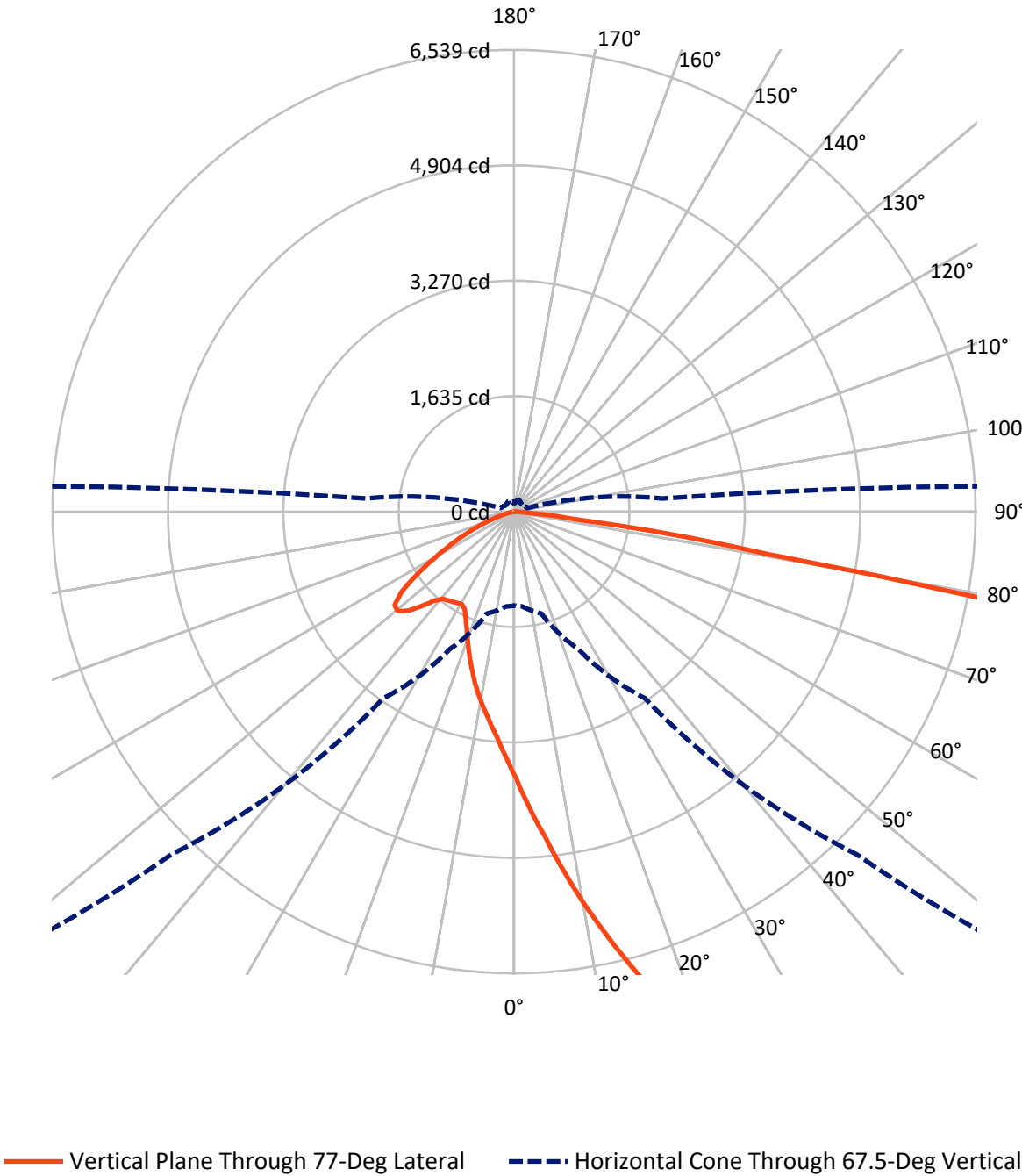
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 14.2 fc
Type II - Medium - N/A

REPORT NUMBER: P967389
CATALOG NUMBER: NAV-SB4D-835-U-T2R-HSS

Luminous Intensity Polar Plot



REPORT NUMBER: P967389

CATALOG NUMBER: NAV-SB4D-835-U-T2R-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2415.2	0.0	2415.2
	% Fixture	7.4	0.0	7.4
Street Side	Lumens	30413.5	0.0	30413.5
	% Fixture	92.6	0.0	92.6
Total	Lumens	32828.7	0.0	32828.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	386.4	1.2
10°-20°	1353.1	4.1
20°-30°	2611.1	8.0
30°-40°	4533.0	13.8
40°-50°	6581.6	20.0
50°-60°	7558.2	23.0
60°-70°	6561.9	20.0
70°-80°	3090.7	9.4
80°-90°	152.8	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°	32828.7	100.0
0°-180°	32828.7	100.0

Coefficient of Utilization



REPORT NUMBER: P967389

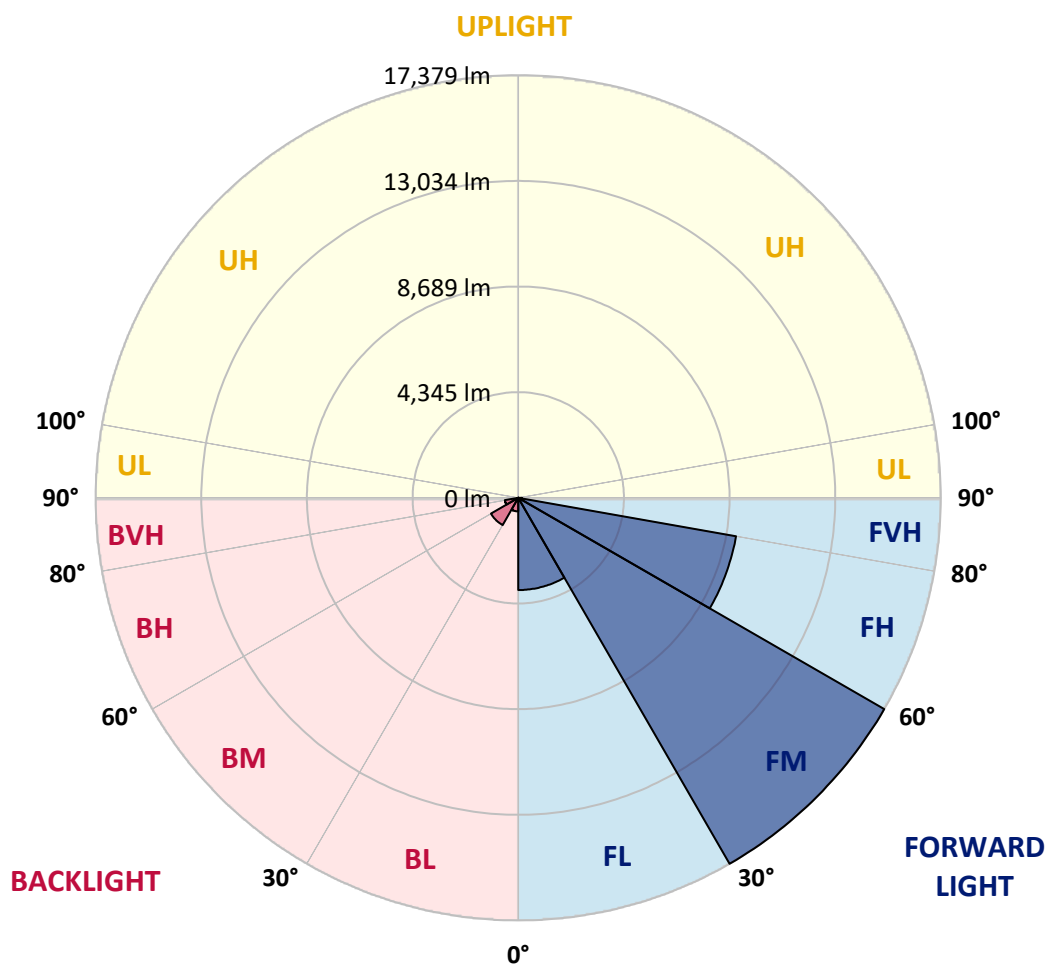
CATALOG NUMBER: NAV-SB4D-835-U-T2R-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3791.4	11.5			
FM	(30°-60°)	17378.6	52.9			
FH	(60°-80°)	9093.5	27.7			G4/12000
FVH	(80°-90°)	150.0	0.5			G2/225
BL	(0°-30°)	559.2	1.7	B2/1000		
BM	(30°-60°)	1294.1	3.9	B2/2500		
BH	(60°-80°)	559.1	1.7	B2/1000		G2/1000
BVH	(80°-90°)	2.8	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-G4

Type II Medium



REPORT NUMBER: P967389

CATALOG NUMBER: NAV-SB4D-835-U-T2R-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	3785.6	3785.6	3785.6	3785.6	3785.6	3785.6	3785.6	3785.6	3785.6	3785.6	3785.6
2.5°	5241.1	5273.8	5226.9	5137.2	5002.6	4915.0	4701.0	4499.1	4274.9	4203.5	3979.3
5°	6388.9	6417.4	6364.4	6266.5	6087.2	5916.0	5634.6	5212.6	4774.3	4633.7	4236.1
7.5°	7239.0	7255.3	7234.9	7145.2	6974.0	6780.3	6466.3	5966.9	5316.6	5161.7	4552.1
10°	7850.6	7903.6	7897.4	7862.8	7748.6	7591.7	7257.3	6688.5	5924.1	5724.3	4908.9
12.5°	8256.3	8315.3	8350.0	8427.4	8421.3	8321.5	8027.9	7426.5	6529.6	6295.1	5310.5
15°	8374.5	8437.7	8570.1	8749.6	8908.6	8959.5	8753.6	8150.2	7196.1	6896.5	5722.3
17.5°	8307.2	8405.0	8564.1	8847.4	9196.0	9426.4	9404.0	8849.4	7801.6	7459.1	6125.9
20°	8456.0	8549.7	8674.2	8912.7	9318.3	9736.3	9903.3	9518.2	8403.1	8044.2	6550.0
22.5°	9279.6	9263.2	9275.5	9314.3	9556.8	9970.7	10315.2	10125.6	8998.3	8631.3	6998.4
25°	10584.3	10510.9	10386.5	10176.6	10115.4	10315.2	10673.9	10663.8	9626.2	9232.7	7457.1
27.5°	12080.5	12068.3	11776.8	11271.3	10985.8	10908.5	11079.6	11187.7	10247.9	9828.0	7917.8
30°	13513.7	13546.3	13152.9	12590.3	12066.3	11762.6	11607.6	11685.1	10879.9	10470.1	8392.8
32.5°	14761.3	14796.0	14367.8	13709.4	13061.2	12694.2	12368.1	12176.4	11568.9	11122.5	8914.7
35°	15815.2	15849.9	15358.6	14630.8	13939.8	13607.5	13238.5	12714.6	12262.0	11846.1	9495.7
37.5°	16757.1	16746.9	16088.4	15354.5	14675.6	14412.7	14219.0	13377.2	12975.5	12573.9	10139.9
40°	17313.6	17356.4	16793.8	15984.5	15326.0	15134.3	15122.1	14198.7	13799.1	13409.8	10845.2
42.5°	17476.7	17552.1	17144.4	16479.8	15882.6	15674.6	15994.6	15087.5	14757.2	14378.1	11642.3
45°	17183.1	17256.5	17071.1	16610.3	16261.7	16127.1	16744.8	16009.0	15780.6	15405.5	12541.3
47.5°	16326.9	16418.7	16463.6	16365.7	16361.6	16498.2	17417.6	16979.3	16995.6	16612.4	13583.0
50°	14669.6	14824.5	15236.3	15582.9	16119.0	16791.8	18072.0	18031.2	18365.5	18035.3	14940.7
52.5°	11656.6	11876.8	13295.6	14243.5	15448.3	16736.7	18791.5	19719.2	20769.0	20285.9	16854.9
55°	9367.3	9367.3	10521.1	12294.7	14139.6	16373.9	19105.5	20815.9	22406.0	22291.8	18202.5
57.5°	7636.5	7728.2	8464.1	10031.8	12245.7	15509.5	19299.2	21504.9	23725.0	23641.3	19519.4
60°	4713.2	4910.9	6301.2	7848.5	10090.9	13970.3	19176.8	22202.1	25325.2	25392.4	21105.4
62.5°	2654.2	2727.6	3347.3	5646.8	7846.5	11901.2	18241.2	22591.5	27371.9	27657.4	22740.3
65°	1832.7	1869.4	2107.9	3514.5	5439.0	9475.3	16412.6	22348.9	29422.7	29999.7	24126.6
67.5°	1331.2	1349.5	1498.3	2146.7	3227.1	6870.0	13546.3	21125.8	30509.3	31473.5	24391.5
70°	1023.4	1035.6	1143.6	1410.7	1906.1	4240.2	9838.2	18693.7	29722.4	30874.2	23033.8
72.5°	831.8	844.0	927.5	1043.8	1263.9	2507.5	5962.8	15181.3	26248.7	27492.2	19609.1
75°	701.3	717.6	793.0	868.5	990.8	1610.5	2796.9	10572.1	19739.6	20554.9	13636.0
77.5°	389.4	358.7	644.2	719.7	835.8	1019.3	1308.7	6221.7	11055.1	11281.5	6050.5
80°	242.6	250.7	511.7	578.9	642.2	513.7	599.3	2395.3	3832.5	3640.9	1172.2
82.5°	14.2	32.6	393.4	417.9	440.3	220.2	226.3	813.4	923.5	848.1	208.0
85°	0.0	0.0	179.4	144.7	152.9	63.2	65.2	189.6	124.3	134.6	40.8
87.5°	0.0	0.0	0.0	4.1	0.0	6.1	12.2	16.3	6.1	8.2	14.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P967389

CATALOG NUMBER: NAV-SB4D-835-U-T2R-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3785.6	3785.6	3785.6	3785.6	3785.6	3785.6	3785.6	3785.6	3785.6	3785.6	3785.6
2.5°	3836.6	3693.9	3404.4	3121.0	2890.7	2676.7	2523.8	2379.0	2305.6	2301.5	2297.4
5°	3952.8	3653.1	3074.2	2562.5	2150.7	1820.4	1606.4	1453.6	1376.1	1349.5	1345.4
7.5°	4115.9	3665.4	2784.7	2073.3	1588.0	1304.7	1182.3	1133.4	1117.1	1098.8	1094.7
10°	4321.8	3693.9	2525.8	1669.6	1251.7	1108.9	1060.1	1039.7	1027.5	1015.2	1011.2
12.5°	4552.1	3720.4	2268.9	1386.2	1100.8	1027.5	992.8	968.3	952.0	937.8	933.7
15°	4776.4	3736.7	2001.9	1188.5	1023.4	964.2	927.5	901.1	878.6	862.3	860.3
17.5°	4998.6	3759.1	1751.1	1070.2	960.1	901.1	864.4	831.8	813.4	795.1	793.0
20°	5245.2	3755.1	1514.6	986.7	897.0	837.8	799.1	768.5	750.2	729.8	727.7
22.5°	5473.6	3734.7	1306.8	915.3	831.8	774.7	731.8	701.3	683.0	666.7	664.6
25°	5736.5	3718.4	1133.4	850.1	770.6	713.5	666.7	638.1	617.7	603.4	601.4
27.5°	5989.3	3693.9	1007.1	791.0	711.5	656.4	611.6	578.9	560.6	550.4	550.4
30°	6238.0	3687.7	960.1	733.9	658.5	603.4	558.5	528.0	513.7	509.6	507.6
32.5°	6537.8	3704.0	980.5	713.5	609.6	554.5	511.7	489.2	475.0	475.0	475.0
35°	6857.8	3700.0	1011.2	731.8	576.9	505.5	472.9	458.7	444.4	444.4	444.4
37.5°	7259.4	3706.1	1035.6	762.4	564.7	464.8	446.5	428.1	419.9	419.9	419.9
40°	7858.7	3907.9	1023.4	788.9	560.6	436.2	399.5	393.4	387.3	387.3	387.3
42.5°	8592.6	4346.2	1039.7	791.0	558.5	415.8	367.0	379.1	364.9	362.8	360.8
45°	9395.8	4825.3	1143.6	748.1	556.6	405.7	350.7	364.9	342.5	342.5	342.5
47.5°	10192.9	5300.3	1249.7	687.0	550.4	403.6	336.4	328.2	322.1	324.1	324.1
50°	11291.7	5687.6	1290.4	603.4	536.2	399.5	309.9	311.9	307.8	311.9	311.9
52.5°	12488.3	5769.2	1241.5	509.6	495.4	387.3	291.5	299.7	297.7	301.8	301.8
55°	13234.4	5681.5	1025.4	424.0	432.1	338.4	273.2	289.5	289.5	289.5	289.5
57.5°	14005.0	5308.5	727.7	344.5	358.7	277.3	256.9	279.3	277.3	275.2	275.2
60°	14559.5	4705.1	479.1	283.4	285.4	228.4	238.5	263.0	261.0	250.7	250.7
62.5°	14973.3	4038.4	307.8	240.6	218.1	205.9	218.1	238.5	230.3	208.0	203.9
65°	14926.5	3115.0	236.5	205.9	179.4	179.4	189.6	208.0	183.5	146.8	142.7
67.5°	14055.9	2107.9	195.7	173.3	150.9	148.8	156.9	173.3	156.9	124.3	120.2
70°	12500.5	1378.1	156.9	134.6	120.2	110.1	126.4	148.8	132.5	99.9	95.8
72.5°	10146.0	839.9	118.3	97.9	87.6	71.3	99.9	122.3	106.0	73.4	69.3
75°	6564.2	428.1	81.6	63.2	46.8	42.8	73.4	91.7	73.4	44.9	38.7
77.5°	2511.6	179.4	44.9	28.5	24.5	20.4	40.8	55.0	30.5	10.1	8.2
80°	483.2	75.4	22.4	14.2	12.2	8.2	6.1	4.1	0.0	0.0	0.0
82.5°	83.5	24.5	8.2	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	28.5	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	10.1	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)