

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: P968381

Luminaire Tested: **NAV-SB5B-827-U-T2R-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P968381
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-SB5B-827-U-T2R-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 2700K, 450mA 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: 21465.5 lumens
Efficiency: N/A
Efficacy: 117.5 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G3

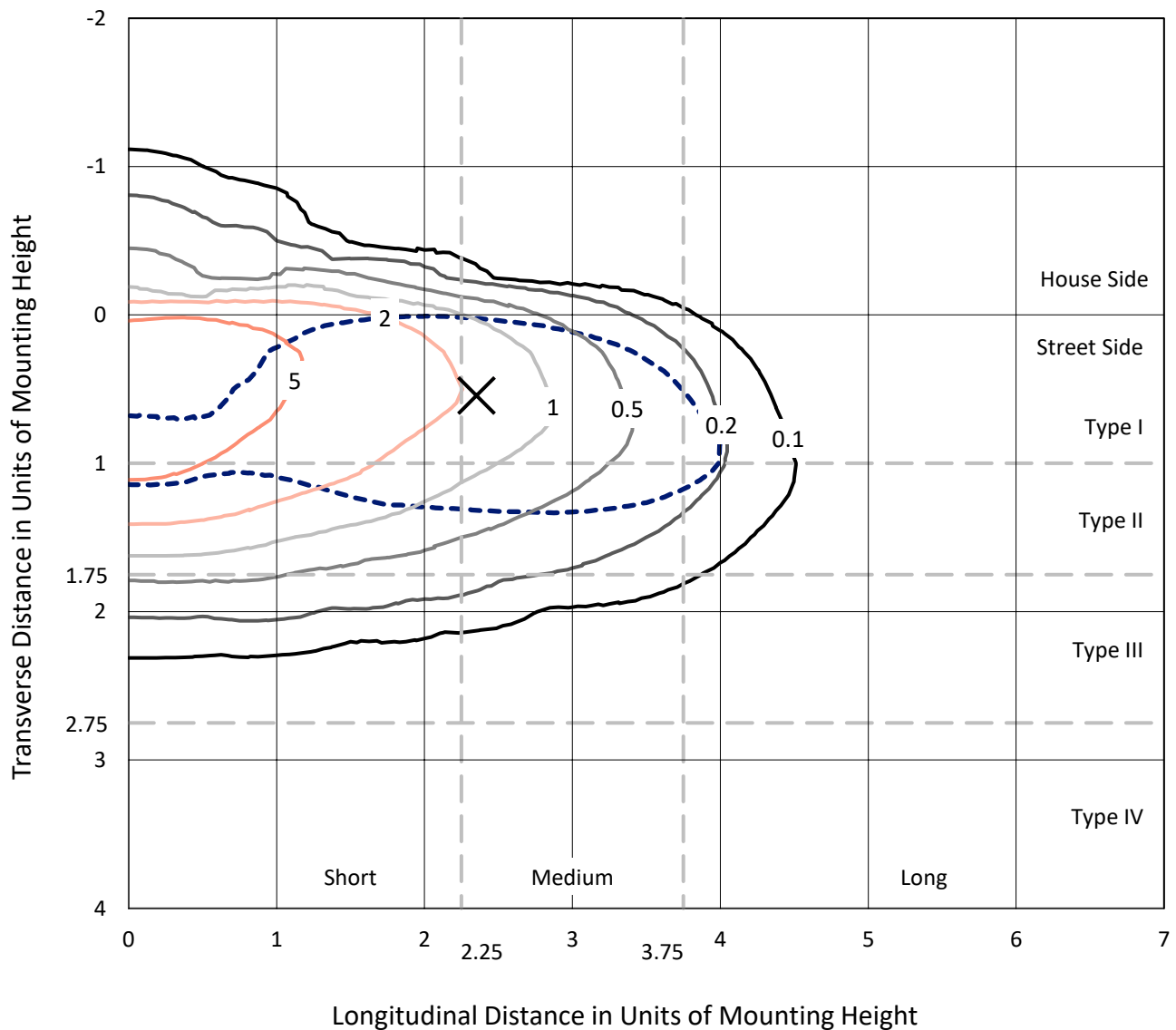
Input Watts (W): 182.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P968381
CATALOG NUMBER: NAV-SB5B-827-U-T2R-HSS

Iso-Footcandle Lines of Horizontal Illumination

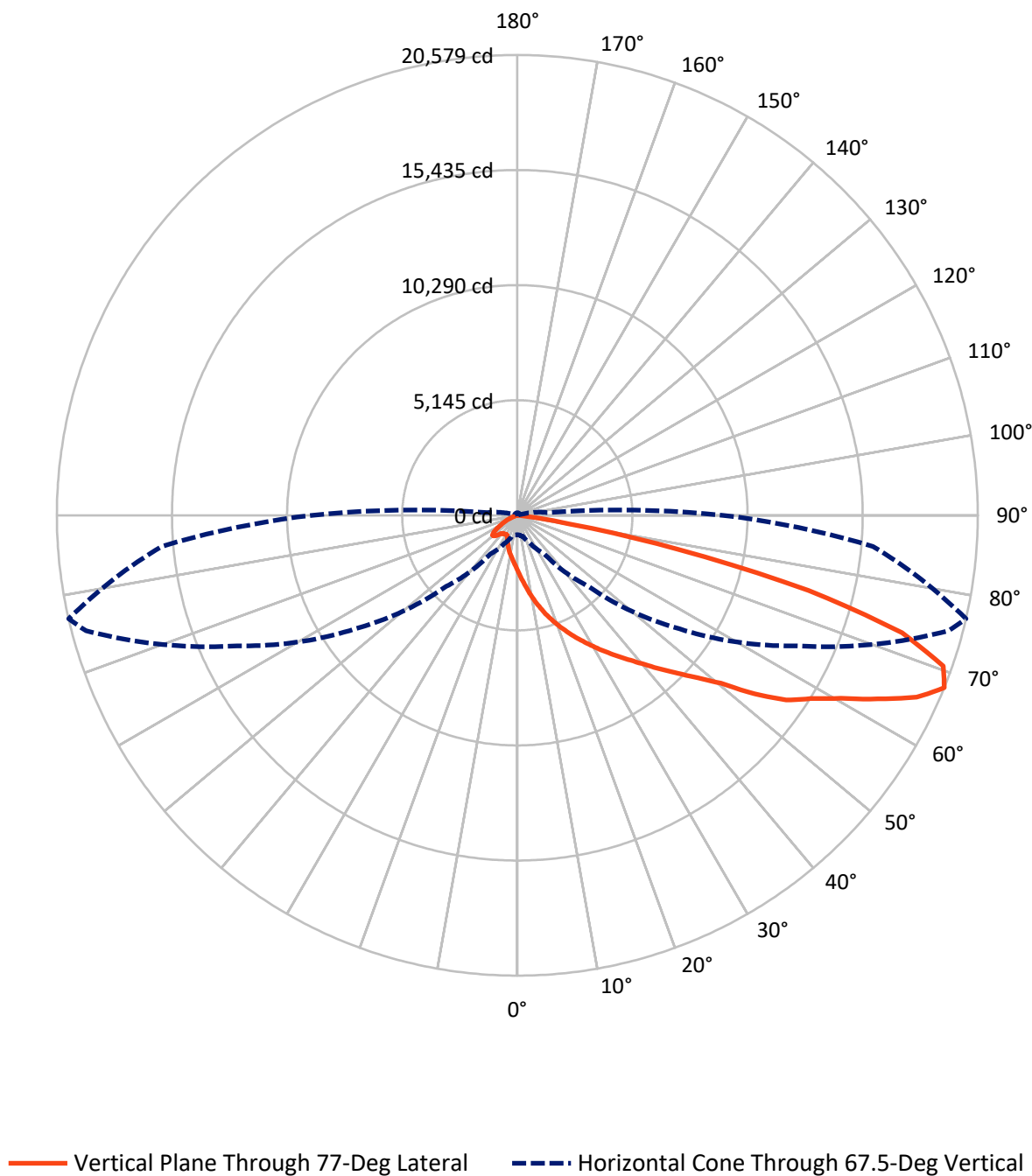
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.3 fc
Type II - Medium - N/A

REPORT NUMBER: P968381
CATALOG NUMBER: NAV-SB5B-827-U-T2R-HSS

Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1579.2	0.0	1579.2
	% Fixture	7.4	0.0	7.4
Street Side	Lumens	19886.3	0.0	19886.3
	% Fixture	92.6	0.0	92.6
Total	Lumens	21465.5	0.0	21465.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	252.6	1.2
10°-20°	884.7	4.1
20°-30°	1707.3	8.0
30°-40°	2963.9	13.8
40°-50°	4303.5	20.0
50°-60°	4942.0	23.0
60°-70°	4290.6	20.0
70°-80°	2020.9	9.4
80°-90°	99.9	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°	21465.5	100.0
0°-180°	21465.5	100.0

Coefficient of Utilization



REPORT NUMBER: P968381

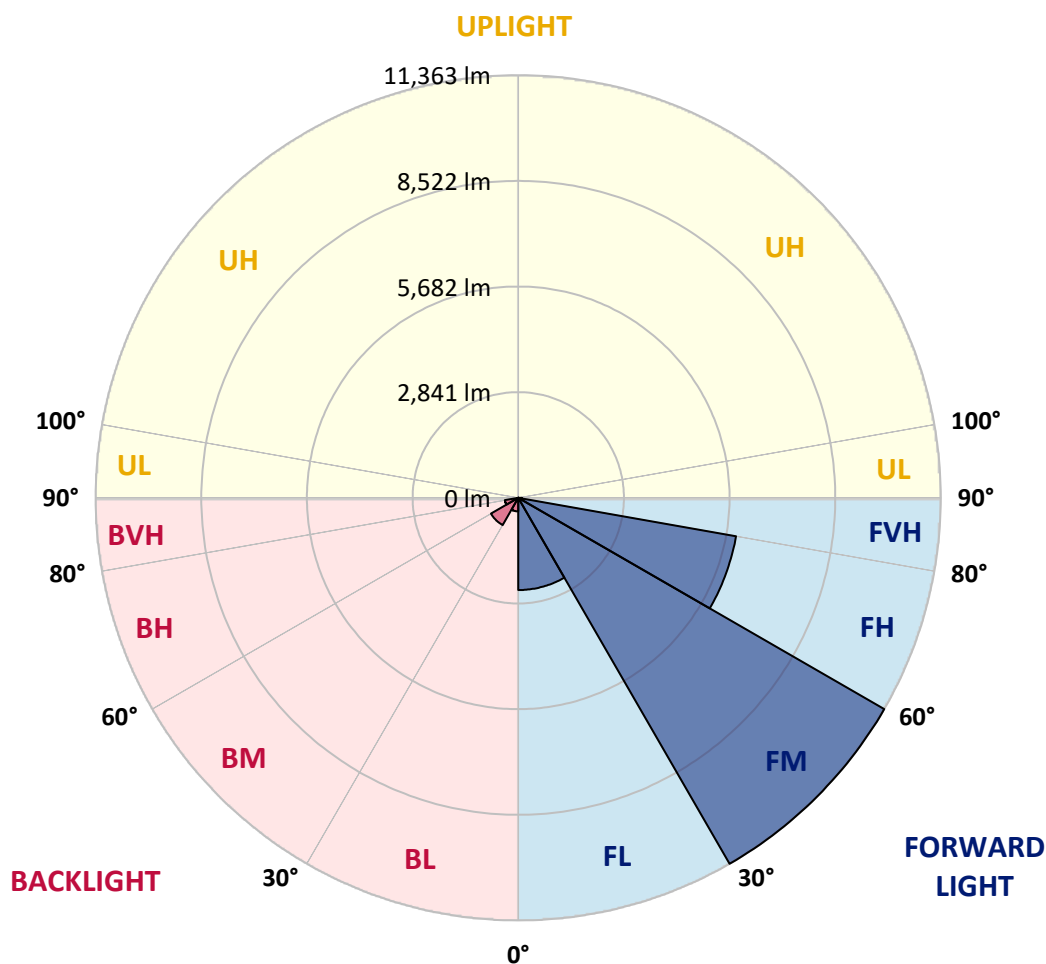
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2479.0	11.5			
FM	(30°-60°)	11363.3	52.9			
FH	(60°-80°)	5945.9	27.7			G3/7500
FVH	(80°-90°)	98.1	0.5			G1/100
BL	(0°-30°)	365.6	1.7	B1/500		
BM	(30°-60°)	846.2	3.9	B1/1000		
BH	(60°-80°)	365.6	1.7	B1/500		G1/500
BVH	(80°-90°)	1.8	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G3

Type II Medium



REPORT NUMBER: P968381

CATALOG NUMBER: NAV-SB5B-827-U-T2R-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	2475.3	2475.3	2475.3	2475.3	2475.3	2475.3	2475.3	2475.3	2475.3	2475.3	2475.3
2.5°	3427.0	3448.3	3417.7	3359.0	3271.1	3213.8	3073.8	2941.9	2795.2	2748.5	2602.0
5°	4177.5	4196.1	4161.5	4097.5	3980.2	3868.2	3684.3	3408.3	3121.7	3029.8	2769.9
7.5°	4733.3	4744.0	4730.7	4672.0	4560.0	4433.4	4228.1	3901.6	3476.4	3375.0	2976.5
10°	5133.2	5167.8	5163.8	5141.2	5066.6	4963.9	4745.3	4373.4	3873.6	3742.9	3209.8
12.5°	5398.5	5437.1	5459.8	5510.4	5506.4	5441.1	5249.1	4855.9	4269.4	4116.2	3472.4
15°	5475.8	5517.1	5603.8	5721.0	5825.0	5858.3	5723.7	5329.2	4705.4	4509.4	3741.6
17.5°	5431.8	5495.7	5599.8	5785.0	6013.0	6163.5	6148.9	5786.3	5101.2	4877.3	4005.5
20°	5529.1	5590.5	5671.7	5827.6	6092.9	6366.2	6475.4	6223.6	5494.4	5259.8	4282.8
22.5°	6067.6	6056.9	6064.9	6090.2	6248.9	6519.5	6744.7	6620.8	5883.7	5643.8	4576.0
25°	6920.7	6872.7	6791.4	6654.1	6614.1	6744.7	6979.3	6972.7	6294.2	6036.9	4875.9
27.5°	7899.1	7891.1	7700.5	7369.9	7183.3	7132.7	7244.6	7315.2	6700.7	6426.1	5177.2
30°	8836.1	8857.4	8600.3	8232.3	7889.7	7691.1	7589.8	7640.5	7114.0	6846.1	5487.7
32.5°	9651.9	9674.6	9394.6	8964.1	8540.2	8300.3	8087.0	7961.7	7564.5	7272.6	5829.0
35°	10341.0	10363.7	10042.4	9566.6	9114.7	8897.4	8656.2	8313.7	8017.8	7745.8	6208.9
37.5°	10956.8	10950.2	10519.7	10039.8	9595.9	9424.0	9297.4	8746.8	8484.2	8221.6	6630.1
40°	11320.8	11348.8	10980.8	10451.7	10021.1	9895.9	9887.9	9284.0	9022.8	8768.2	7091.4
42.5°	11427.4	11476.7	11210.1	10775.6	10385.0	10249.1	10458.4	9865.2	9649.2	9401.3	7612.5
45°	11235.4	11283.4	11162.1	10860.9	10632.9	10545.0	10948.8	10467.7	10318.4	10073.1	8200.3
47.5°	10675.6	10735.6	10765.0	10700.9	10698.2	10787.6	11388.8	11102.2	11112.8	10862.2	8881.4
50°	9591.9	9693.2	9962.5	10189.1	10539.7	10979.5	11816.6	11790.0	12008.6	11792.6	9769.2
52.5°	7621.8	7765.8	8693.5	9313.4	10101.1	10943.5	12287.2	12893.7	13580.1	13264.2	11020.9
55°	6124.9	6124.9	6879.4	8039.1	9245.4	10706.2	12492.4	13610.8	14650.5	14575.8	11901.9
57.5°	4993.3	5053.2	5534.4	6559.5	8007.1	10141.1	12619.1	14061.4	15512.9	15458.2	12763.0
60°	3081.8	3211.1	4120.2	5131.9	6598.1	9134.7	12539.1	14517.2	16559.3	16603.3	13800.1
62.5°	1735.5	1783.5	2188.7	3692.3	5130.5	7781.8	11927.3	14771.8	17897.5	18084.2	14869.1
65°	1198.3	1222.3	1378.3	2298.0	3556.3	6195.6	10731.6	14613.1	19238.5	19615.7	15775.5
67.5°	870.4	882.4	979.7	1403.6	2110.1	4492.1	8857.4	13813.4	19949.0	20579.4	15948.8
70°	669.1	677.1	747.7	922.4	1246.3	2772.5	6432.8	12223.2	19434.4	20187.6	15061.0
72.5°	543.9	551.9	606.5	682.4	826.5	1639.5	3898.9	9926.5	17163.1	17976.2	12821.6
75°	458.6	469.2	518.5	567.8	647.8	1053.0	1828.8	6912.7	12907.0	13440.2	8916.2
77.5°	254.6	234.6	421.2	470.6	546.5	666.5	855.8	4068.1	7228.6	7376.5	3956.2
80°	158.7	164.0	334.6	378.5	419.8	335.9	391.9	1566.2	2505.9	2380.7	766.5
82.5°	9.3	21.3	257.3	273.3	287.9	143.9	147.9	531.9	603.8	554.5	135.9
85°	0.0	0.0	117.3	94.6	99.9	41.3	42.6	123.9	81.3	87.9	26.6
87.5°	0.0	0.0	0.0	2.7	0.0	4.0	8.0	10.7	4.0	5.3	9.3
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: P968381

CATALOG NUMBER: NAV-SB5B-827-U-T2R-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2475.3	2475.3	2475.3	2475.3	2475.3	2475.3	2475.3	2475.3	2475.3	2475.3	2475.3
2.5°	2508.6	2415.3	2226.0	2040.8	1890.1	1750.2	1650.1	1555.5	1507.6	1504.9	1502.2
5°	2584.6	2388.7	2010.1	1675.6	1406.3	1190.3	1050.3	950.4	899.7	882.4	879.8
7.5°	2691.2	2396.7	1820.8	1355.6	1038.3	853.1	773.2	741.1	730.4	718.4	715.8
10°	2825.8	2415.3	1651.5	1091.7	818.5	725.1	693.1	679.8	671.8	663.8	661.1
12.5°	2976.5	2432.6	1483.6	906.4	719.8	671.8	649.1	633.1	622.5	613.2	610.5
15°	3123.1	2443.3	1308.9	777.2	669.1	630.5	606.5	589.2	574.5	563.9	562.5
17.5°	3268.4	2458.0	1145.0	699.8	627.8	589.2	565.2	543.9	531.9	519.9	518.5
20°	3429.6	2455.3	990.4	645.1	586.5	547.9	522.5	502.6	490.6	477.2	475.9
22.5°	3579.0	2442.0	854.4	598.5	543.9	506.6	478.6	458.6	446.5	435.8	434.5
25°	3750.9	2431.3	741.1	555.9	503.9	466.6	435.8	417.2	403.8	394.5	393.2
27.5°	3916.2	2415.3	658.5	517.2	465.2	429.2	399.9	378.5	366.5	359.9	359.9
30°	4078.9	2411.3	627.8	479.9	430.5	394.5	365.2	345.2	335.9	333.2	331.9
32.5°	4274.8	2422.0	641.1	466.6	398.5	362.5	334.6	319.9	310.6	310.6	310.6
35°	4484.1	2419.3	661.1	478.6	377.2	330.6	309.2	299.9	290.6	290.6	290.6
37.5°	4746.7	2423.3	677.1	498.6	369.2	303.9	291.9	279.9	274.6	274.6	274.6
40°	5138.5	2555.2	669.1	515.9	366.5	285.3	261.3	257.3	253.3	253.3	253.3
42.5°	5618.4	2841.8	679.8	517.2	365.2	271.9	240.0	247.9	238.6	237.3	236.0
45°	6143.5	3155.1	747.7	489.2	363.9	265.3	229.3	238.6	224.0	224.0	224.0
47.5°	6664.8	3465.6	817.1	449.2	359.9	263.9	220.0	214.6	210.6	212.0	212.0
50°	7383.2	3718.9	843.8	394.5	350.5	261.3	202.6	204.0	201.3	204.0	204.0
52.5°	8165.7	3772.3	811.8	333.2	323.9	253.3	190.6	196.0	194.6	197.3	197.3
55°	8653.6	3714.9	670.5	277.3	282.6	221.3	178.7	189.3	189.3	189.3	189.3
57.5°	9157.3	3471.1	475.9	225.3	234.6	181.3	168.0	182.7	181.3	180.0	180.0
60°	9520.0	3076.4	313.2	185.3	186.7	149.2	156.0	172.0	170.7	164.0	164.0
62.5°	9790.5	2640.6	201.3	157.3	142.6	134.6	142.6	156.0	150.6	135.9	133.2
65°	9759.8	2036.8	154.7	134.6	117.3	117.3	123.9	135.9	119.9	95.9	93.3
67.5°	9190.7	1378.3	127.9	113.3	98.6	97.3	102.6	113.3	102.6	81.3	78.6
70°	8173.7	901.1	102.6	87.9	78.6	72.0	82.6	97.3	86.6	65.3	62.6
72.5°	6634.1	549.2	77.3	64.0	57.3	46.6	65.3	79.9	69.3	48.0	45.3
75°	4292.1	279.9	53.3	41.3	30.6	28.0	48.0	60.0	48.0	29.3	25.3
77.5°	1642.2	117.3	29.3	18.7	16.0	13.3	26.6	36.0	20.0	6.7	5.3
80°	315.9	49.3	14.7	9.3	8.0	5.3	4.0	2.7	0.0	0.0	0.0
82.5°	54.6	16.0	5.3	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	18.7	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	6.7	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)