

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: P969420

Luminaire Tested: **NAV-SB5D-827-U-AFL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P969420
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-15)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5D-827-U-AFL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 39063.9 lumens
Efficiency: N/A
Efficacy: 107.1 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

Input Watts (W): 364.9
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

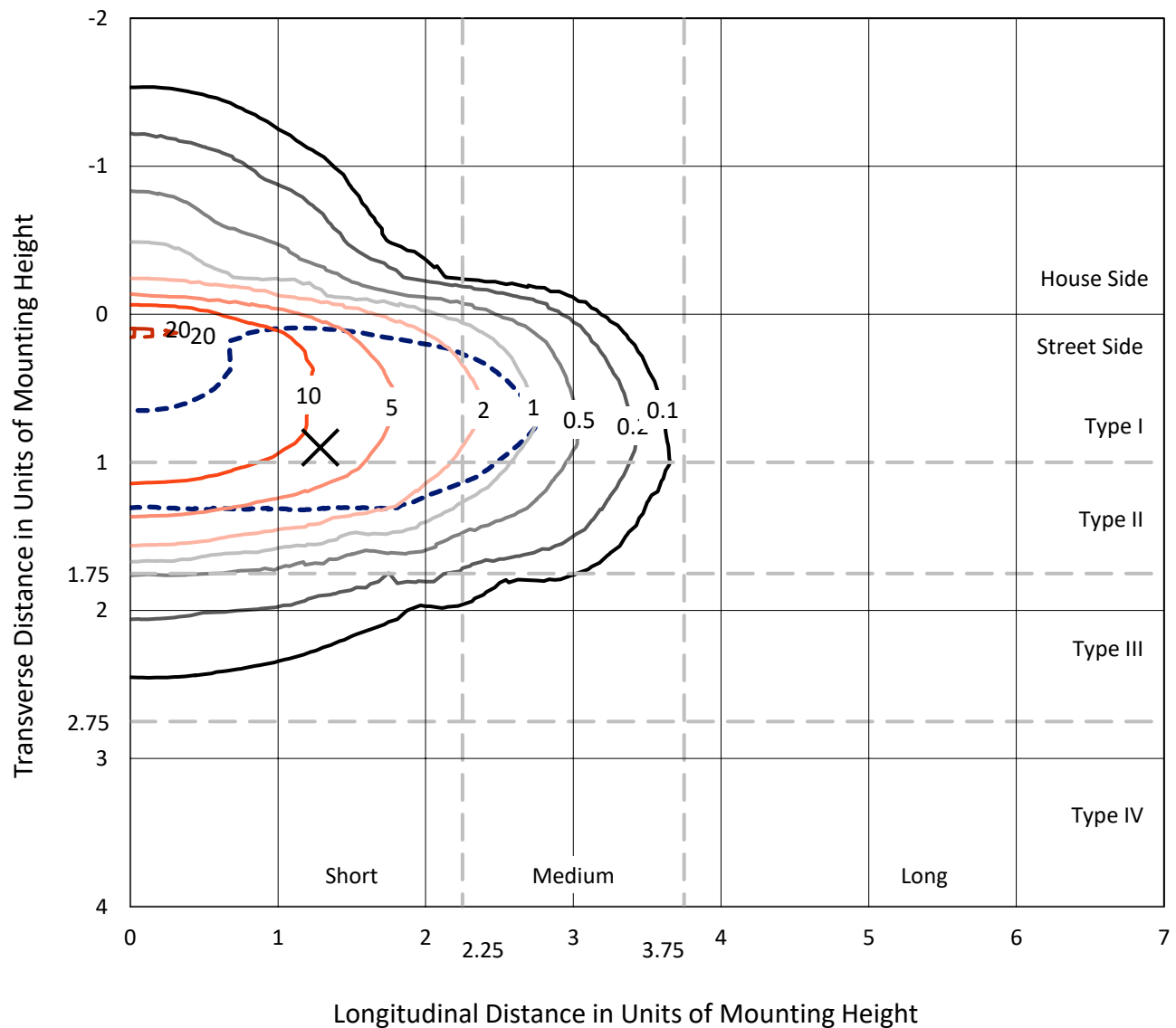


REPORT NUMBER: P969420

CATALOG NUMBER: NAV-SB5D-827-U-AFL-HSS

Iso-Footcandle Lines of Horizontal Illumination

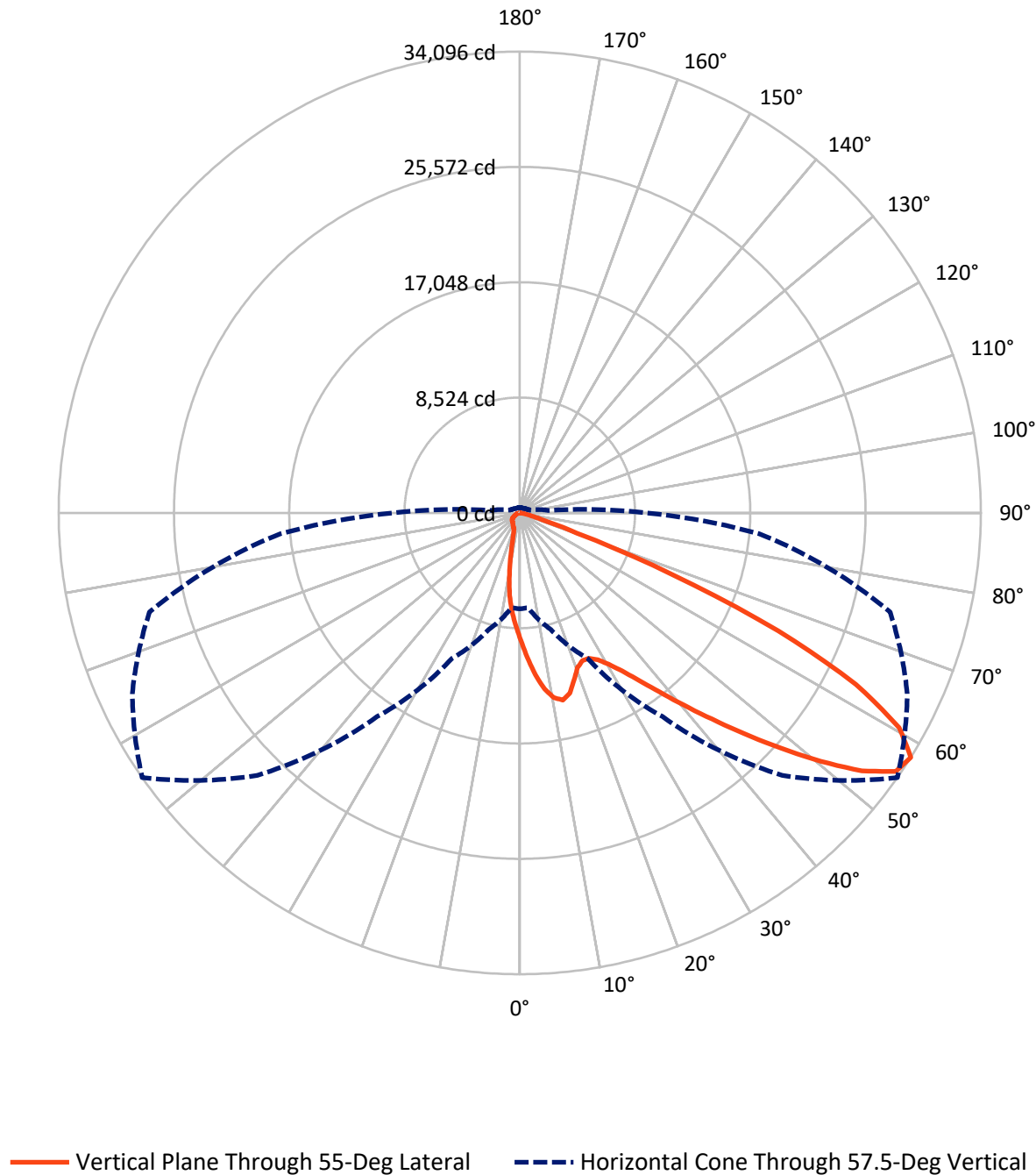
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 21.6 fc
Type II - Short - N/A

REPORT NUMBER: P969420
CATALOG NUMBER: NAV-SB5D-827-U-AFL-HSS

Luminous Intensity Polar Plot



REPORT NUMBER: P969420

CATALOG NUMBER: NAV-SB5D-827-U-AFL-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3050.8	0.0	3050.8
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	36013.1	0.0	36013.1
	% Fixture	92.2	0.0	92.2
Total	Lumens	39063.9	0.0	39063.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	875.9	2.2
10°-20°	2115.7	5.4
20°-30°	3385.0	8.7
30°-40°	5729.4	14.7
40°-50°	9406.4	24.1
50°-60°	10338.3	26.5
60°-70°	5930.1	15.2
70°-80°	1211.7	3.1
80°-90°	71.5	0.2
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°	39063.9	100.0
0°-180°	39063.9	100.0

Coefficient of Utilization



REPORT NUMBER: P969420

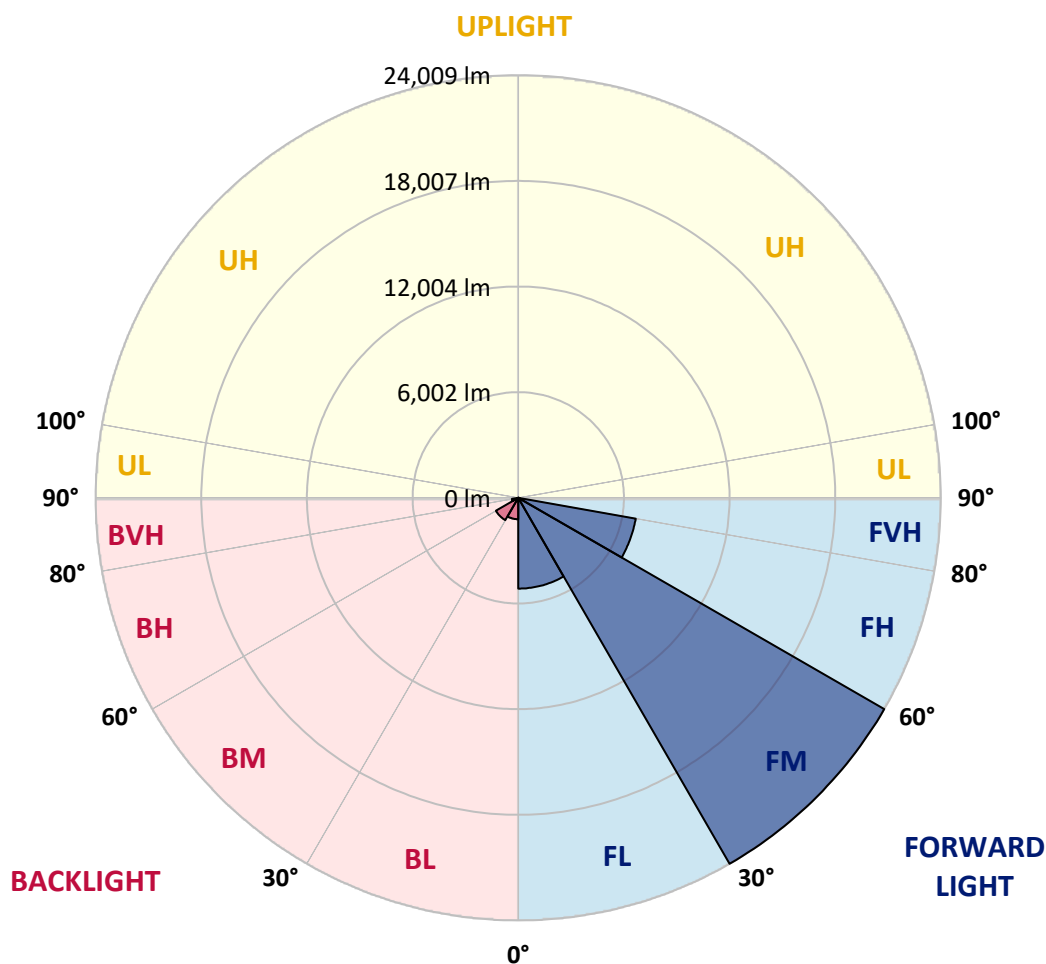
CATALOG NUMBER: NAV-SB5D-827-U-AFL-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	5158.6	13.2			
FM	(30°-60°)	24008.9	61.5			
FH	(60°-80°)	6778.9	17.4			G3/7500
FVH	(80°-90°)	66.7	0.2			G1/100
BL	(0°-30°)	1217.9	3.1	B3/2500		
BM	(30°-60°)	1465.2	3.8	B2/2500		
BH	(60°-80°)	362.8	0.9	B1/500		G1/500
BVH	(80°-90°)	4.8	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Short



REPORT NUMBER: P969420

CATALOG NUMBER: NAV-SB5D-827-U-AFL-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	9413.4	9413.4	9413.4	9413.4	9413.4	9413.4	9413.4	9413.4	9413.4	9413.4	9413.4
2.5°	11680.1	11533.1	11511.5	11482.6	11203.1	10993.5	10690.0	10357.6	9984.3	9603.7	9435.1
5°	13493.8	13378.2	13356.6	13221.7	12903.7	12547.2	12007.7	11325.9	10629.9	9810.9	9459.2
7.5°	13845.5	13823.9	13922.6	13917.8	13874.4	13592.6	13137.3	12325.6	11280.2	10066.2	9521.8
10°	12277.4	12332.8	12626.7	12884.5	13580.5	13985.2	13886.5	13216.9	11949.9	10357.6	9591.6
12.5°	10849.0	10784.0	10993.5	11285.0	12094.4	13298.8	14197.2	13961.1	12715.8	10687.7	9695.3
15°	9953.0	9926.5	10044.5	10179.4	10796.0	12010.0	13835.9	14565.8	13452.9	11077.9	9851.8
17.5°	9666.4	9644.6	9680.8	9714.5	10114.4	11053.8	12976.0	14936.7	14158.6	11523.5	10025.2
20°	9900.0	9871.1	9866.2	9839.8	10005.9	10646.7	12197.9	14963.2	14792.2	11928.1	10174.6
22.5°	10581.7	10548.0	10429.9	10323.9	10338.4	10702.1	11851.0	14698.2	15269.1	12306.4	10268.6
25°	11817.3	11762.0	11516.3	11159.8	10933.4	11087.5	11904.0	14349.0	15724.3	12602.6	10222.7
27.5°	13363.7	13291.5	12976.0	12446.1	11928.1	11740.2	12287.1	14108.1	16102.5	12829.0	10124.0
30°	14878.9	14784.9	14474.2	14062.3	13305.9	12713.4	12978.3	14214.1	16552.9	13065.1	9994.0
32.5°	16514.4	16425.3	16013.4	15502.7	14876.4	14079.2	13925.0	14731.9	17104.6	13395.1	9902.4
35°	18583.6	18443.8	17858.5	17162.4	16497.6	15690.6	15206.5	15625.6	17839.2	13898.5	9953.0
37.5°	20939.3	20751.4	20120.3	19159.2	18292.0	17388.8	16767.4	16854.1	18916.0	14572.9	10109.6
40°	23160.2	22989.1	22406.2	21500.5	20411.7	19315.8	18653.4	18460.7	20402.1	15394.4	10384.2
42.5°	24492.2	24338.0	24092.3	23709.4	22791.6	21673.9	20838.1	20421.4	22160.5	16377.1	10718.9
45°	24566.9	24432.0	24761.9	25207.6	25026.9	24282.7	23263.7	22500.2	23926.2	17299.6	11065.8
47.5°	23372.2	23280.6	24282.7	25838.7	26614.3	26927.5	25988.1	24405.5	25383.4	17962.1	11208.0
50°	20115.5	20081.8	22143.7	25000.5	27218.9	29244.7	28861.6	26178.3	26513.2	18304.1	11073.1
52.5°	17441.8	17318.9	18520.9	22317.1	26339.7	30463.5	31670.2	27917.4	27303.2	18369.1	10757.5
55°	13228.9	13120.5	14628.4	17827.2	23504.6	30029.9	33725.0	29712.0	27869.2	18203.0	10191.5
57.5°	7096.2	7028.7	8934.1	11865.5	18373.9	27428.5	34095.9	31610.1	28346.2	17762.1	9398.9
60°	2762.9	2750.8	3463.8	5756.9	11167.0	22314.7	32224.3	32749.4	28644.9	17220.2	8736.6
62.5°	1671.7	1707.9	1823.5	2584.6	4933.1	13862.4	27910.2	31453.5	28844.8	16724.0	8189.7
65°	1382.6	1385.1	1399.5	1775.3	2363.0	5800.3	21011.6	27190.0	28351.0	15839.9	7414.1
67.5°	1185.1	1206.8	1262.2	1409.2	1666.9	2543.6	12096.7	21062.1	25347.3	13782.9	6204.9
70°	934.6	963.5	1033.4	1158.7	1286.3	1592.2	4470.6	14014.1	19364.0	10389.0	4692.2
72.5°	787.7	785.3	821.4	941.9	1021.3	1120.1	1719.8	7852.5	11253.7	4959.7	2322.0
75°	609.5	633.6	679.3	787.7	835.9	811.8	932.2	2868.9	4032.2	1503.1	790.1
77.5°	476.9	496.2	537.2	643.2	691.4	575.7	537.2	1026.1	1295.9	539.6	356.5
80°	214.4	231.2	366.1	474.6	563.6	397.5	291.5	525.1	575.7	245.7	180.7
82.5°	38.5	65.1	214.4	250.5	289.0	257.8	151.8	272.2	281.9	98.8	62.6
85°	2.5	4.8	74.7	91.5	115.6	84.4	45.8	108.4	94.0	33.7	24.1
87.5°	0.0	0.0	0.0	2.5	2.5	12.1	14.5	19.3	14.5	12.1	9.6
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: P969420

CATALOG NUMBER: NAV-SB5D-827-U-AFL-HSS

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	9413.4	9413.4	9413.4	9413.4	9413.4	9413.4	9413.4	9413.4	9413.4	9413.4
2.5°	9261.7	8919.7	8587.2	8315.0	8156.0	7886.2	7708.0	7679.1	7604.5	7669.5
5°	9083.4	8471.6	7852.5	7298.5	6843.3	6255.6	5817.2	5631.7	5470.3	5525.7
7.5°	8999.1	8033.2	7069.7	6123.0	5149.9	4210.5	3512.0	3220.5	2998.9	3030.2
10°	8885.9	7577.9	6067.7	4622.4	3319.3	2391.9	1910.2	1731.9	1633.1	1635.6
12.5°	8799.2	7033.6	4904.2	3133.8	2021.0	1527.1	1377.8	1334.4	1305.5	1308.0
15°	8755.9	6392.8	3755.3	2088.4	1445.2	1293.6	1257.4	1238.1	1218.8	1216.5
17.5°	8683.6	5679.8	2748.4	1524.8	1264.6	1211.7	1180.3	1158.7	1134.6	1129.8
20°	8575.2	4870.5	2008.9	1288.7	1185.1	1144.2	1100.8	1071.9	1043.0	1038.2
22.5°	8375.3	4015.4	1544.1	1192.4	1127.3	1081.6	1028.6	994.9	966.0	961.1
25°	8004.3	3213.3	1300.7	1132.1	1076.8	1021.3	963.5	917.8	891.2	886.4
27.5°	7534.6	2524.4	1180.3	1076.8	1011.7	961.1	896.1	852.7	828.6	823.8
30°	6980.6	1943.9	1110.5	1014.1	934.6	891.2	833.4	797.3	782.9	782.9
32.5°	6383.2	1553.7	1081.6	951.5	867.2	819.0	773.3	758.8	754.0	751.5
35°	5822.0	1348.9	1067.1	900.9	807.0	761.2	741.9	744.4	754.0	754.0
37.5°	5323.3	1283.9	1059.8	864.8	754.0	713.0	725.1	746.7	737.1	737.1
40°	4873.0	1291.1	1055.0	838.2	710.6	686.5	710.6	693.7	669.6	667.3
42.5°	4528.4	1351.4	1045.4	816.6	684.1	667.3	657.6	631.1	628.7	633.6
45°	4277.9	1404.4	1043.0	807.0	655.2	623.9	611.8	585.4	633.6	645.5
47.5°	3981.7	1404.4	1043.0	773.3	607.0	595.0	575.7	546.8	595.0	607.0
50°	3598.7	1315.2	1002.0	734.7	568.5	561.3	527.6	491.4	481.7	489.0
52.5°	3114.6	1153.8	898.5	681.7	529.9	515.5	474.6	448.0	440.9	440.9
55°	2562.9	966.0	758.8	604.6	489.0	462.5	433.6	421.6	414.3	409.5
57.5°	2083.6	792.5	609.5	537.2	450.5	416.8	407.1	392.7	380.6	373.4
60°	1710.2	623.9	503.5	476.9	411.9	380.6	378.2	359.0	327.6	322.8
62.5°	1320.0	457.7	423.9	414.3	373.4	346.9	342.0	303.5	255.3	245.7
65°	932.2	356.5	342.0	363.8	332.4	308.3	296.3	238.5	187.9	180.7
67.5°	655.2	298.7	269.8	318.0	289.0	257.8	250.5	202.3	156.6	151.8
70°	467.3	243.3	221.6	272.2	231.2	226.4	212.0	168.6	127.7	122.9
72.5°	330.0	185.5	171.1	236.1	159.0	195.2	173.4	130.1	96.4	91.5
75°	243.3	132.5	120.4	137.4	115.6	147.0	122.9	86.7	60.3	57.8
77.5°	178.2	84.4	72.3	67.4	67.4	91.5	67.4	36.2	26.5	24.1
80°	125.3	38.5	33.7	28.9	26.5	21.7	9.6	4.8	2.5	2.5
82.5°	74.7	16.9	16.9	12.1	7.3	0.0	0.0	0.0	0.0	0.0
85°	16.9	7.3	7.3	2.5	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.5	2.5	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

(END OF REPORT)