

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: P882450

Luminaire Tested: **NAV-SB2B-827-U-T4FT-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P882450  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB2B-827-U-T4FT-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(2) 80 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV  
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

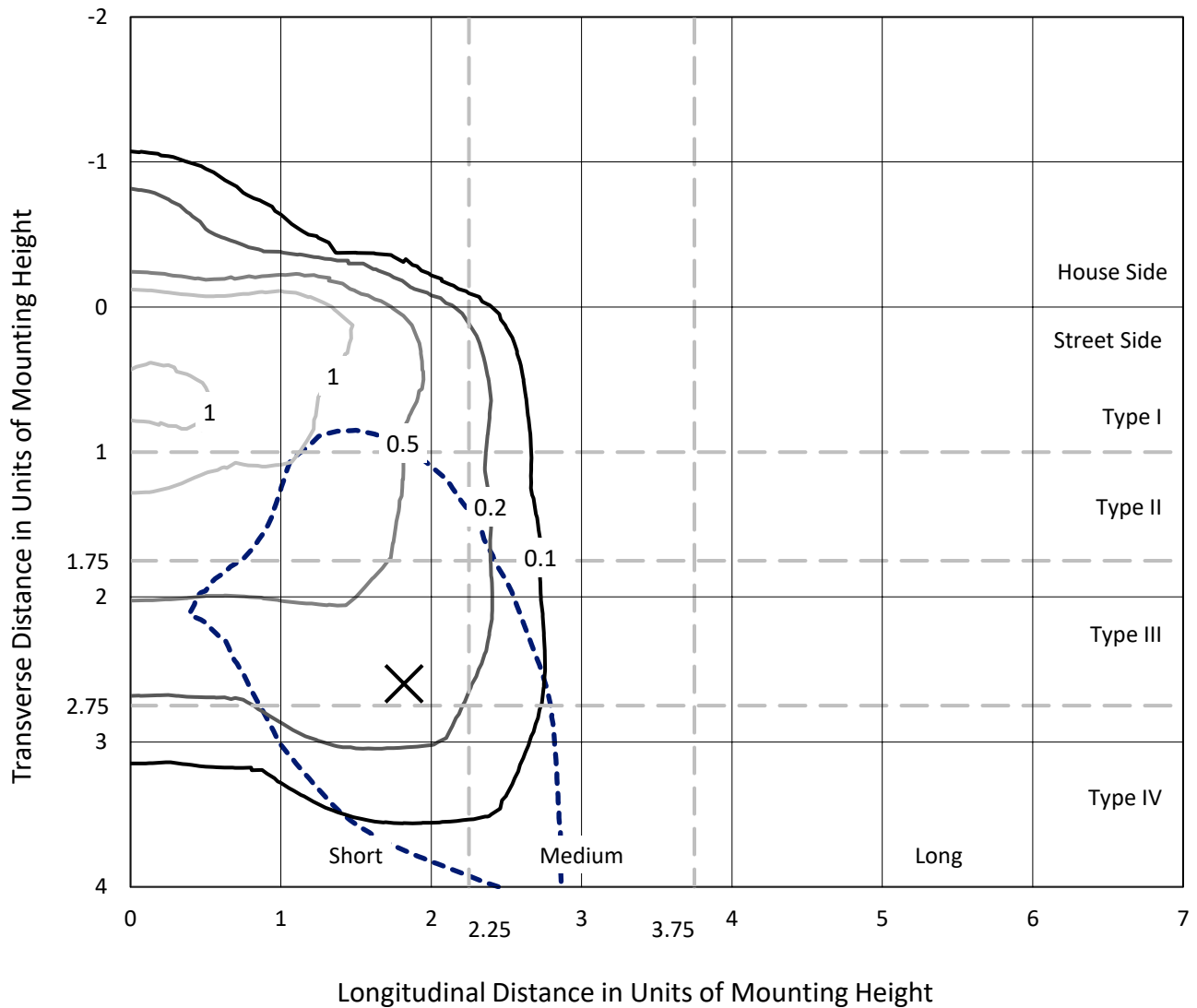
Lumens per Lamp: N/A  
Luminaire Lumens: 7060 lumens  
Efficiency: N/A  
Efficacy: 95.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2  
  
Input Watts (W): 73.9  
Input Voltage (V): 120.0  
Input Current (Ain): 0.627  
Voltage Rise (V): NR  
Power Factor: 0.988  
Total Harmonic Distortion (THDi): 13.593  
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

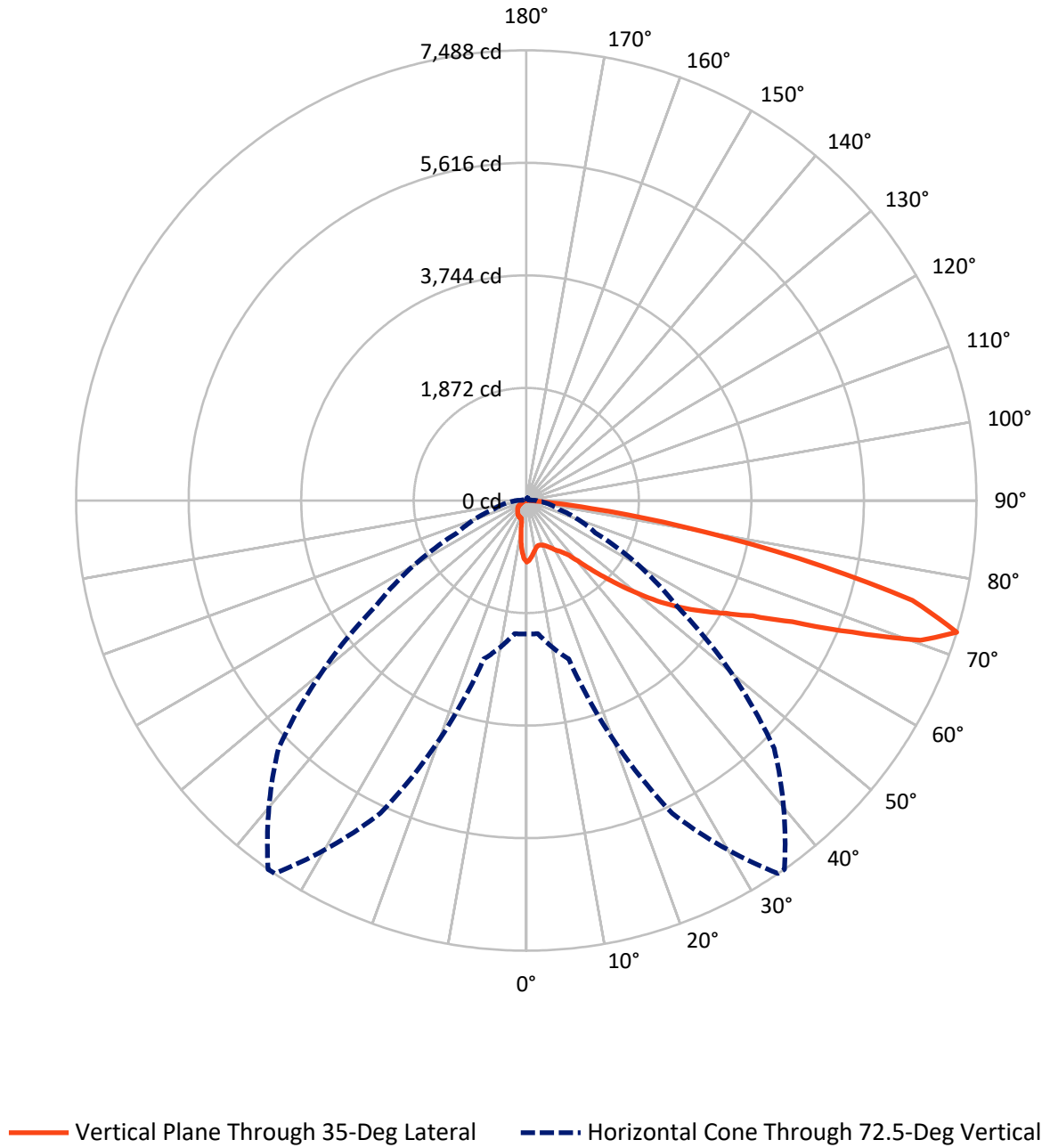
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.6 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	794.6	0.0	794.6
	% Fixture	11.3	0.0	11.3
<b>Street Side</b>	Lumens	6265.4	0.0	6265.4
	% Fixture	88.7	0.0	88.7
<b>Total</b>	Lumens	7060.0	0.0	7060.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	84.1	1.2
10°-20°	196.7	2.8
20°-30°	319.5	4.5
30°-40°	533.1	7.6
40°-50°	1008.7	14.3
50°-60°	1602.8	22.7
60°-70°	1982.8	28.1
70°-80°	1232.5	17.5
80°-90°	99.6	1.4
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°	7060.0	100.0
0°-180°	7060.0	100.0

**Coefficient of Utilization**



REPORT NUMBER: P882450

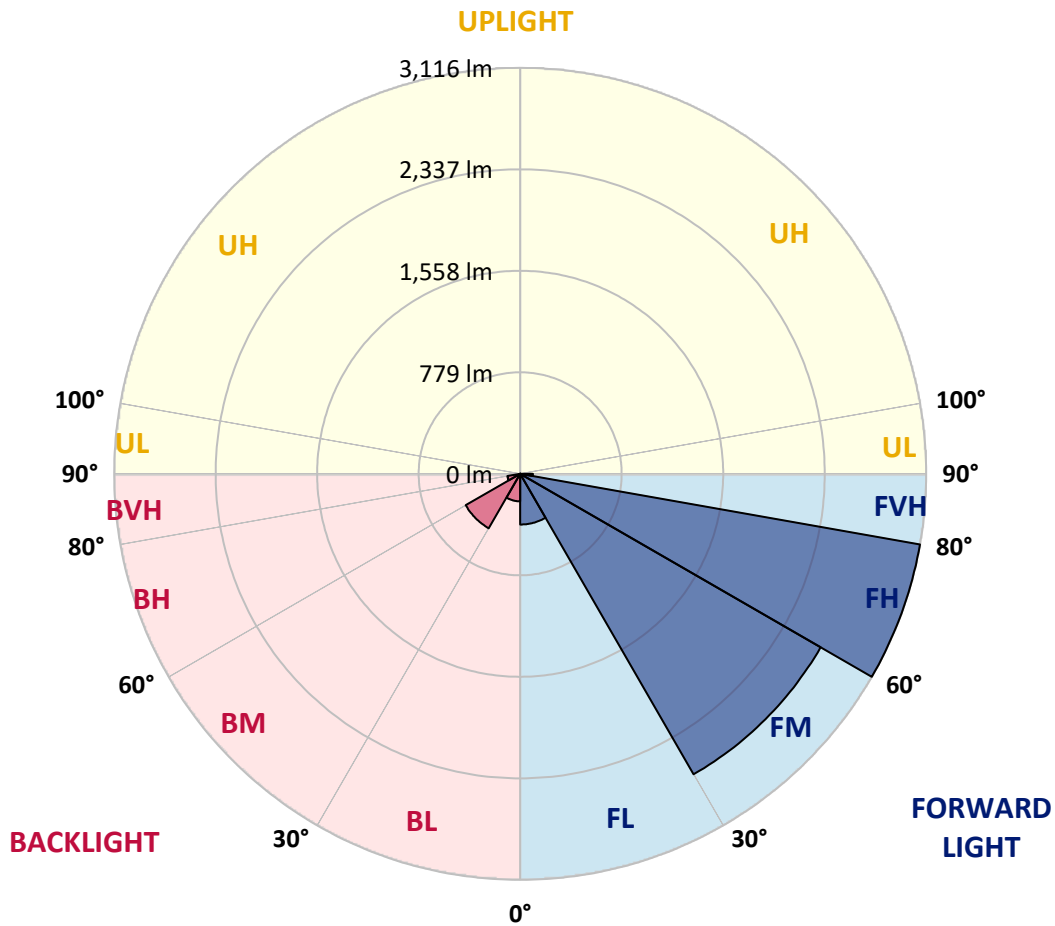
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	389.2	5.5			
FM (30°-60°)	2662.3	37.7			
FH (60°-80°)	3115.7	44.1			G2/5000
FVH (80°-90°)	98.3	1.4			G1/100
BL (0°-30°)	211.1	3.0	B1/500		
BM (30°-60°)	482.4	6.8	B1/1000		
BH (60°-80°)	99.7	1.4	B0/110		G0/110
BVH (80°-90°)	1.4	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-G2**

Type IV Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	1023.2	1023.2	1023.2	1023.2	1023.2	1023.2	1023.2	1023.2	1023.2	1023.2	1023.2
2.5°	977.7	986.0	987.5	990.1	990.1	993.2	998.4	1005.6	1017.5	1023.7	1027.9
5°	901.1	907.4	915.1	921.3	933.2	934.8	954.9	974.6	1002.0	1022.7	1037.2
7.5°	824.1	831.3	841.7	856.7	872.2	876.8	907.4	940.5	983.9	1022.7	1047.0
10°	769.8	770.3	779.6	794.6	819.4	825.1	862.3	909.4	963.7	1016.5	1056.3
12.5°	739.2	742.9	747.0	758.4	782.2	785.8	825.6	881.0	943.6	1012.9	1067.2
15°	739.2	741.8	744.4	750.1	769.2	772.3	807.5	862.9	933.2	1014.4	1084.8
17.5°	747.0	751.1	749.1	755.8	776.0	778.0	809.1	857.7	932.7	1024.3	1111.7
20°	765.6	768.7	764.6	768.7	788.9	793.0	825.1	867.5	941.5	1041.3	1145.3
22.5°	795.1	796.7	786.8	789.9	810.6	815.8	853.0	895.5	962.7	1068.8	1190.3
25°	832.3	835.4	820.4	824.1	843.7	849.9	892.9	937.4	996.3	1106.5	1247.7
27.5°	875.3	876.8	863.9	863.4	888.7	897.5	941.0	989.1	1041.3	1154.1	1320.2
30°	924.4	929.1	916.7	914.6	946.7	953.9	996.8	1052.7	1107.6	1225.5	1423.1
32.5°	963.2	966.8	959.6	964.8	997.4	1003.1	1064.6	1142.7	1211.5	1326.9	1563.3
35°	1019.1	1021.2	1004.6	1013.9	1051.2	1065.6	1157.2	1269.0	1342.4	1454.1	1746.4
37.5°	1221.4	1221.4	1151.0	1105.0	1140.7	1153.6	1284.0	1427.8	1503.8	1624.9	1977.1
40°	1501.2	1496.6	1393.6	1299.5	1294.8	1320.2	1464.5	1628.0	1712.3	1829.7	2236.8
42.5°	1799.7	1792.5	1652.3	1559.2	1543.6	1552.4	1673.0	1874.7	1960.6	2079.6	2516.2
45°	2064.6	2062.5	1934.2	1809.0	1781.1	1809.0	1933.2	2163.4	2224.9	2350.1	2795.0
47.5°	2286.5	2286.5	2192.9	2111.1	2096.6	2113.2	2285.5	2483.6	2477.9	2638.3	3066.6
50°	2542.0	2540.0	2451.0	2415.8	2430.8	2454.1	2691.0	2820.9	2739.7	2921.2	3309.2
52.5°	2721.0	2733.4	2702.9	2697.2	2773.8	2814.1	3102.8	3150.9	2974.0	3189.7	3490.8
55°	2862.8	2877.3	2912.4	2952.3	3099.7	3152.5	3501.6	3463.9	3170.0	3422.5	3595.3
57.5°	3063.5	3042.8	3097.1	3175.7	3414.2	3477.8	3888.1	3759.3	3327.8	3611.3	3606.7
60°	3307.1	3310.2	3319.6	3418.9	3728.2	3810.0	4268.8	4038.6	3429.2	3727.2	3480.4
62.5°	3599.9	3604.6	3623.7	3776.3	4149.8	4226.9	4674.4	4267.3	3475.8	3694.6	3154.5
65°	3579.8	3599.4	3813.1	4335.0	4790.8	4866.8	5147.7	4427.6	3405.4	3396.6	2568.4
67.5°	3261.1	3293.2	3650.6	5002.3	5757.1	5841.9	5719.8	4459.2	3101.8	2641.4	1675.6
70°	2843.1	2854.5	3284.4	5602.4	6876.0	6961.9	6232.0	4112.1	2353.7	1473.3	750.6
72.5°	2220.3	2222.9	2727.2	5741.6	7483.3	7488.0	5830.0	3052.6	1265.8	565.9	260.7
75°	1586.1	1570.5	1826.6	4656.3	6583.7	6636.5	4370.7	1431.9	483.7	267.4	129.8
77.5°	850.5	867.5	1033.6	2761.4	4548.2	4638.2	2384.8	412.8	246.2	182.1	85.9
80°	262.8	277.3	423.7	1264.3	2576.2	2630.5	884.1	183.6	171.7	129.8	56.4
82.5°	82.8	85.9	197.6	531.3	1069.3	1094.1	256.1	104.0	117.4	85.9	33.1
85°	23.8	24.3	87.9	198.1	264.3	269.5	71.9	40.3	67.2	53.3	17.1
87.5°	2.6	8.3	33.1	33.1	23.3	22.8	7.8	8.8	19.1	6.7	3.1
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°	1023.2	1023.2	1023.2	1023.2	1023.2	1023.2	1023.2	1023.2	1023.2	1023.2	1023.2
2.5°	1025.3	1025.8	1019.1	1007.7	995.3	985.0	972.0	961.7	954.4	952.4	956.0
5°	1032.5	1028.9	1009.8	975.1	933.7	898.0	858.2	826.7	806.0	797.2	800.3
7.5°	1043.4	1033.1	991.2	922.9	843.7	773.4	702.0	646.6	611.5	593.9	596.5
10°	1052.7	1032.0	960.1	847.3	726.3	619.7	523.5	456.8	419.5	401.9	402.5
12.5°	1061.5	1031.5	919.8	757.9	593.9	463.5	374.0	340.9	330.6	326.9	325.9
15°	1078.1	1033.1	869.1	655.4	462.0	350.2	317.6	317.1	319.2	318.1	317.6
17.5°	1100.8	1034.6	811.7	546.8	356.4	308.8	307.3	311.9	315.0	313.5	313.0
20°	1130.3	1040.8	750.6	439.2	306.2	298.5	302.1	306.2	308.8	306.2	305.7
22.5°	1171.7	1051.7	683.9	352.8	290.2	292.3	295.4	300.0	302.6	299.0	298.5
25°	1222.4	1068.8	618.2	306.8	282.4	285.0	289.7	294.9	298.0	294.3	293.8
27.5°	1288.1	1096.2	557.7	296.4	274.7	276.2	283.0	290.7	294.9	290.2	290.2
30°	1383.3	1141.2	505.4	301.1	270.0	266.4	275.7	286.6	291.2	287.1	286.6
32.5°	1509.5	1204.8	473.3	308.3	268.0	255.0	263.8	277.8	285.6	283.0	283.0
35°	1675.0	1301.5	460.9	316.6	266.4	243.1	249.3	264.3	277.8	280.4	280.4
37.5°	1875.8	1436.0	464.5	320.2	261.8	233.3	236.4	249.3	266.9	275.2	277.3
40°	2103.9	1592.8	485.2	316.6	256.6	225.0	225.5	235.4	250.9	263.3	267.4
42.5°	2339.3	1775.9	523.5	303.1	251.9	217.8	216.2	223.0	233.3	242.1	245.7
45°	2563.2	1964.2	561.3	284.5	246.2	210.5	206.9	209.5	211.6	215.2	217.3
47.5°	2758.8	2096.6	550.4	267.4	238.5	202.3	196.1	195.0	188.8	188.3	187.8
50°	2893.8	2125.6	488.9	250.4	227.1	193.0	183.1	176.9	166.1	160.9	161.4
52.5°	2936.7	2011.3	399.4	233.3	208.5	180.5	166.6	156.7	143.3	138.6	138.1
55°	2879.8	1787.3	319.2	212.6	182.6	164.0	148.5	135.5	124.7	119.0	119.0
57.5°	2740.7	1502.3	252.4	188.3	155.2	145.4	129.8	116.9	107.6	101.9	100.9
60°	2510.0	1192.9	199.7	159.3	132.4	125.2	109.2	100.9	92.6	85.9	84.3
62.5°	2159.8	851.5	156.7	126.2	110.7	102.4	93.1	86.9	77.1	67.8	66.2
65°	1685.4	520.9	121.0	92.6	89.0	84.8	79.1	73.5	61.6	52.2	50.7
67.5°	1063.1	246.8	86.4	69.8	70.4	68.3	65.7	61.0	52.2	44.0	42.9
70°	468.2	119.5	56.9	53.3	52.2	52.2	54.3	52.8	44.5	36.7	35.2
72.5°	159.3	64.1	42.4	40.3	37.8	37.2	45.5	44.0	35.7	28.5	26.9
75°	83.3	42.9	31.0	29.0	22.8	27.4	36.2	34.1	25.3	18.6	17.1
77.5°	54.3	30.5	21.2	18.6	12.9	18.1	26.9	23.8	15.0	9.3	8.3
80°	34.1	20.2	12.4	8.8	6.2	9.8	14.5	10.3	5.7	2.1	1.6
82.5°	18.1	10.3	4.7	3.1	2.6	3.1	3.6	2.6	1.0	0.0	0.0
85°	7.2	3.6	1.6	1.0	0.5	0.0	1.0	0.5	0.0	0.0	0.0
87.5°	2.6	0.5	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)