

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: P882120

Luminaire Tested: **NAV-SB1D-830-U-T4FT-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P882120  
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-SB1D-830-U-T4FT-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 80 CRI, 3000K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV FORWARD  
THROW OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

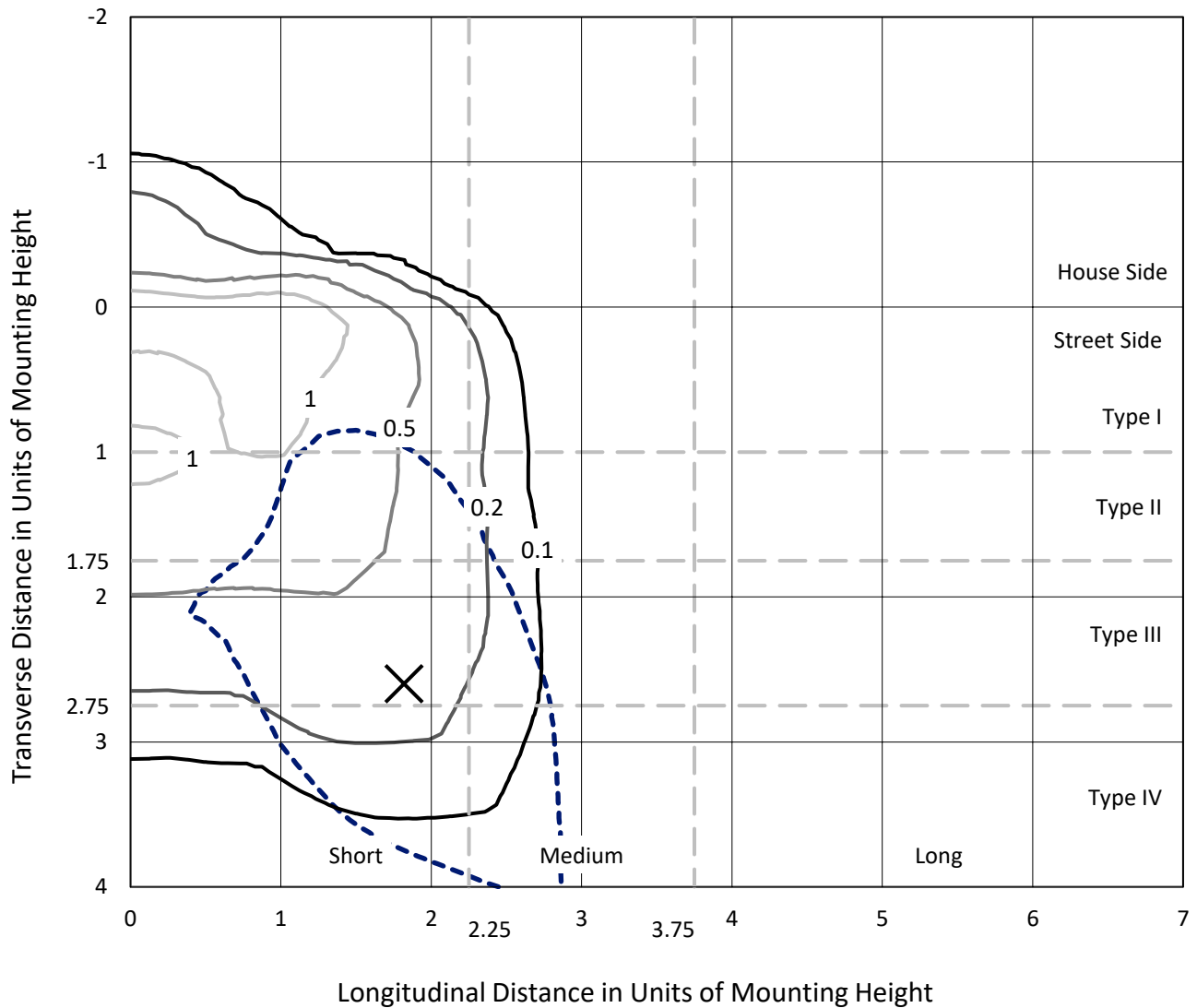
Lumens per Lamp: N/A  
Luminaire Lumens: 6747 lumens  
Efficiency: N/A  
Efficacy: 84.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2  
  
Input Watts (W): 79.6  
Input Voltage (V): 120.0  
Input Current (Ain): 0.638  
Voltage Rise (V): NR  
Power Factor: 0.997  
Total Harmonic Distortion (THDi): 6.673  
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

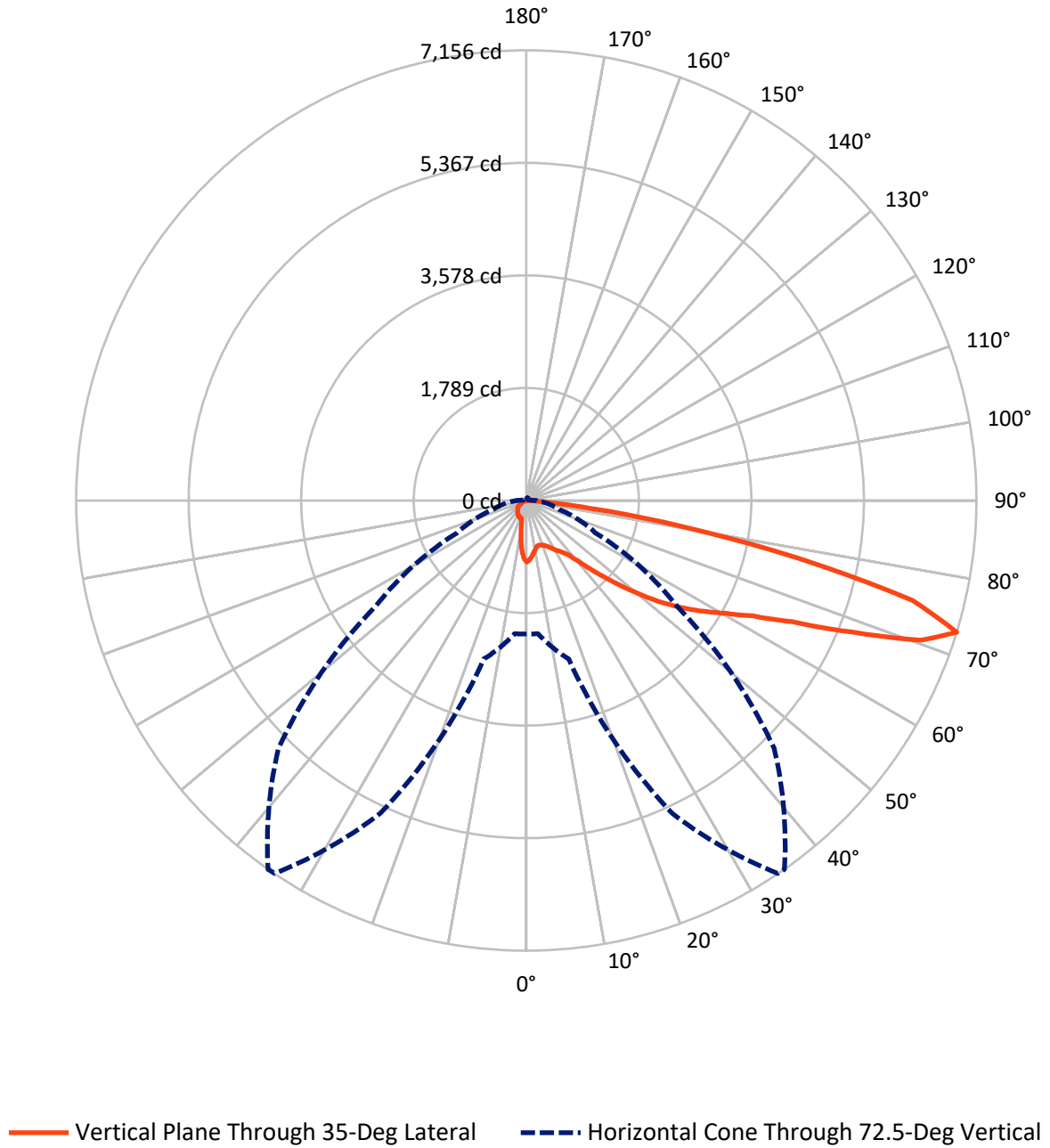
✕ Max cd  
 - - - 1/2 Max cd



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	759.3	0.0	759.3
	% Fixture	11.3	0.0	11.3
<b>Street Side</b>	Lumens	5987.7	0.0	5987.7
	% Fixture	88.7	0.0	88.7
<b>Total</b>	Lumens	6747.0	0.0	6747.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	80.4	1.2
10°-20°	188.0	2.8
20°-30°	305.4	4.5
30°-40°	509.5	7.6
40°-50°	964.0	14.3
50°-60°	1531.8	22.7
60°-70°	1894.9	28.1
70°-80°	1177.9	17.5
80°-90°	95.2	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°	6747.0	100.0
0°-180°	6747.0	100.0

**Coefficient of Utilization**



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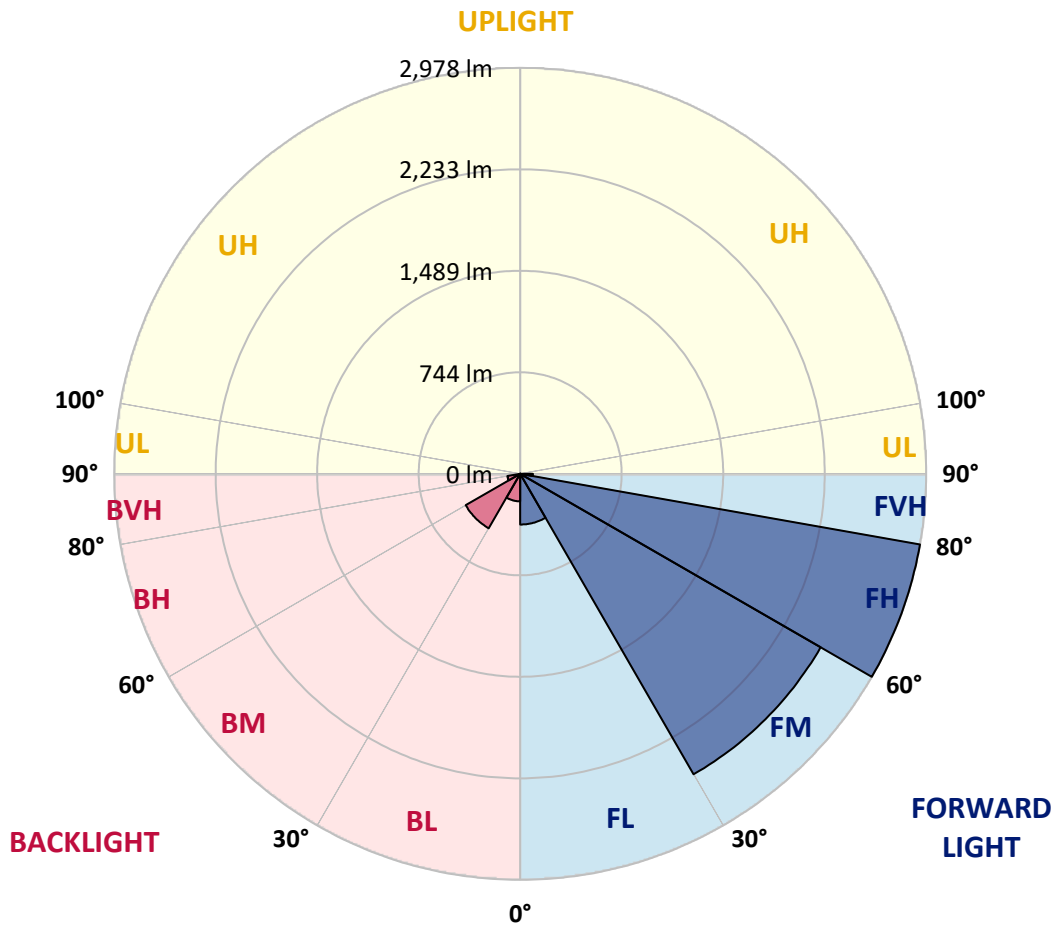
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	371.9	5.5			
FM (30°-60°)	2544.3	37.7			
FH (60°-80°)	2977.5	44.1			G2/5000
FVH (80°-90°)	93.9	1.4			G1/100
BL (0°-30°)	201.8	3.0	B1/500		
BM (30°-60°)	461.0	6.8	B1/1000		
BH (60°-80°)	95.3	1.4	B0/110		G0/110
BVH (80°-90°)	1.3	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°	977.9	977.9	977.9	977.9	977.9	977.9	977.9	977.9	977.9	977.9	977.9
2.5°	934.4	942.3	943.8	946.2	946.2	949.2	954.1	961.1	972.4	978.4	982.3
5°	861.2	867.1	874.5	880.5	891.8	893.3	912.6	931.4	957.6	977.4	991.2
7.5°	787.5	794.5	804.3	818.7	833.5	838.0	867.1	898.8	940.3	977.4	1000.6
10°	735.6	736.1	745.0	759.4	783.1	788.5	824.1	869.1	921.0	971.4	1009.5
12.5°	706.5	709.9	713.9	724.7	747.5	751.0	789.0	841.9	901.7	968.0	1019.9
15°	706.5	708.9	711.4	716.8	735.1	738.1	771.7	824.6	891.8	969.5	1036.7
17.5°	713.9	717.8	715.8	722.3	741.6	743.5	773.2	819.7	891.4	978.9	1062.4
20°	731.7	734.6	730.7	734.6	753.9	757.9	788.5	829.1	899.8	995.2	1094.5
22.5°	759.8	761.3	751.9	754.9	774.7	779.6	815.2	855.8	920.0	1021.4	1137.5
25°	795.4	798.4	784.1	787.5	806.3	812.3	853.3	895.8	952.2	1057.5	1192.4
27.5°	836.5	838.0	825.6	825.1	849.3	857.7	899.3	945.2	995.2	1102.9	1261.6
30°	883.4	887.9	876.0	874.0	904.7	911.6	952.7	1006.0	1058.4	1171.2	1360.0
32.5°	920.5	924.0	917.1	922.0	953.1	958.6	1017.4	1092.1	1157.8	1268.1	1494.0
35°	973.9	975.9	960.1	969.0	1004.6	1018.4	1105.9	1212.7	1282.9	1389.7	1669.0
37.5°	1167.2	1167.2	1100.0	1056.0	1090.1	1102.4	1227.0	1364.5	1437.1	1552.8	1889.5
40°	1434.7	1430.2	1331.8	1241.9	1237.4	1261.6	1399.6	1555.8	1636.4	1748.6	2137.7
42.5°	1719.9	1713.0	1579.0	1490.0	1475.2	1483.6	1598.8	1791.6	1873.7	1987.4	2404.6
45°	1973.0	1971.1	1848.5	1728.8	1702.1	1728.8	1847.5	2067.5	2126.3	2245.9	2671.1
47.5°	2185.1	2185.1	2095.6	2017.5	2003.7	2019.5	2184.1	2373.5	2368.0	2521.3	2930.6
50°	2429.3	2427.4	2342.3	2308.7	2323.1	2345.3	2571.7	2695.8	2618.2	2791.7	3162.5
52.5°	2600.4	2612.3	2583.1	2577.7	2650.8	2689.4	2965.2	3011.2	2842.1	3048.3	3336.0
55°	2735.9	2749.7	2783.3	2821.4	2962.3	3012.7	3346.4	3310.3	3029.5	3270.8	3435.9
57.5°	2927.7	2907.9	2959.8	3034.9	3262.9	3323.7	3715.7	3592.6	3180.3	3451.2	3446.8
60°	3160.5	3163.5	3172.4	3267.3	3562.9	3641.0	4079.6	3859.6	3277.2	3561.9	3326.1
62.5°	3440.3	3444.8	3463.1	3608.9	3965.8	4039.5	4467.1	4078.1	3321.7	3530.8	3014.7
65°	3421.0	3439.8	3644.0	4142.8	4578.4	4651.0	4919.5	4231.3	3254.4	3246.0	2454.6
67.5°	3116.5	3147.2	3488.8	4780.6	5501.9	5582.9	5466.3	4261.5	2964.3	2524.3	1601.3
70°	2717.1	2727.9	3138.8	5354.0	6571.2	6653.2	5955.7	3929.8	2249.4	1408.0	717.3
72.5°	2121.8	2124.3	2606.3	5487.0	7151.6	7156.0	5571.6	2917.3	1209.7	540.8	249.2
75°	1515.7	1500.9	1745.6	4449.8	6291.9	6342.3	4176.9	1368.4	462.2	255.6	124.1
77.5°	812.7	829.1	987.8	2639.0	4346.5	4432.5	2279.1	394.5	235.3	174.0	82.1
80°	251.1	265.0	404.9	1208.2	2462.0	2513.9	844.9	175.5	164.1	124.1	53.9
82.5°	79.1	82.1	188.8	507.7	1021.9	1045.6	244.7	99.4	112.2	82.1	31.6
85°	22.7	23.2	84.0	189.3	252.6	257.6	68.7	38.6	64.3	50.9	16.3
87.5°	2.5	7.9	31.6	31.6	22.2	21.8	7.4	8.4	18.3	6.4	3.0
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°	977.9	977.9	977.9	977.9	977.9	977.9	977.9	977.9	977.9	977.9	977.9
2.5°	979.8	980.3	973.9	963.0	951.2	941.3	928.9	919.0	912.1	910.1	913.6
5°	986.8	983.3	965.0	931.9	892.3	858.2	820.2	790.0	770.2	761.8	764.8
7.5°	997.1	987.3	947.2	882.0	806.3	739.1	670.9	618.0	584.3	567.5	570.0
10°	1006.0	986.3	917.6	809.8	694.1	592.3	500.3	436.5	400.9	384.1	384.6
12.5°	1014.4	985.8	879.0	724.3	567.5	443.0	357.4	325.8	315.9	312.4	311.5
15°	1030.3	987.3	830.5	626.4	441.5	334.7	303.5	303.0	305.0	304.0	303.5
17.5°	1052.0	988.7	775.7	522.6	340.6	295.1	293.7	298.1	301.1	299.6	299.1
20°	1080.2	994.7	717.3	419.7	292.7	285.3	288.7	292.7	295.1	292.7	292.2
22.5°	1119.8	1005.1	653.6	337.2	277.3	279.3	282.3	286.7	289.2	285.7	285.3
25°	1168.2	1021.4	590.8	293.2	269.9	272.4	276.8	281.8	284.8	281.3	280.8
27.5°	1231.0	1047.6	532.9	283.3	262.5	264.0	270.4	277.8	281.8	277.3	277.3
30°	1321.9	1090.6	483.0	287.7	258.1	254.6	263.5	273.9	278.3	274.4	273.9
32.5°	1442.6	1151.4	452.3	294.6	256.1	243.7	252.1	265.5	272.9	270.4	270.4
35°	1600.8	1243.8	440.5	302.6	254.6	232.4	238.3	252.6	265.5	267.9	267.9
37.5°	1792.6	1372.4	443.9	306.0	250.2	223.0	225.9	238.3	255.1	263.0	265.0
40°	2010.6	1522.2	463.7	302.6	245.2	215.1	215.5	224.9	239.8	251.6	255.6
42.5°	2235.5	1697.2	500.3	289.7	240.8	208.1	206.6	213.1	223.0	231.4	234.8
45°	2449.6	1877.1	536.4	271.9	235.3	201.2	197.7	200.2	202.2	205.7	207.6
47.5°	2636.5	2003.7	526.0	255.6	227.9	193.3	187.4	186.4	180.4	180.0	179.5
50°	2765.5	2031.4	467.2	239.3	217.0	184.4	175.0	169.1	158.7	153.7	154.2
52.5°	2806.5	1922.1	381.7	223.0	199.2	172.5	159.2	149.8	136.9	132.5	132.0
55°	2752.2	1708.1	305.0	203.2	174.5	156.7	141.9	129.5	119.1	113.7	113.7
57.5°	2619.2	1435.7	241.3	180.0	148.3	138.9	124.1	111.7	102.8	97.4	96.4
60°	2398.7	1140.0	190.8	152.3	126.6	119.6	104.3	96.4	88.5	82.1	80.6
62.5°	2064.0	813.7	149.8	120.6	105.8	97.9	89.0	83.1	73.7	64.8	63.3
65°	1610.7	497.8	115.7	88.5	85.0	81.1	75.6	70.2	58.8	49.9	48.4
67.5°	1015.9	235.8	82.6	66.7	67.2	65.3	62.8	58.3	49.9	42.0	41.0
70°	447.4	114.2	54.4	50.9	49.9	49.9	51.9	50.4	42.5	35.1	33.6
72.5°	152.3	61.3	40.5	38.6	36.1	35.6	43.5	42.0	34.1	27.2	25.7
75°	79.6	41.0	29.7	27.7	21.8	26.2	34.6	32.6	24.2	17.8	16.3
77.5°	51.9	29.2	20.3	17.8	12.4	17.3	25.7	22.7	14.3	8.9	7.9
80°	32.6	19.3	11.9	8.4	5.9	9.4	13.8	9.9	5.4	2.0	1.5
82.5°	17.3	9.9	4.4	3.0	2.5	3.0	3.5	2.5	1.0	0.0	0.0
85°	6.9	3.5	1.5	1.0	0.5	0.0	1.0	0.5	0.0	0.0	0.0
87.5°	2.5	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)