

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: P881720

Luminaire Tested: **NAV-SB1B-730-U-T4FT-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P881720  
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-SB1B-730-U-T4FT-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 70 CRI, 3000K, 450mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV FORWARD  
THROW OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

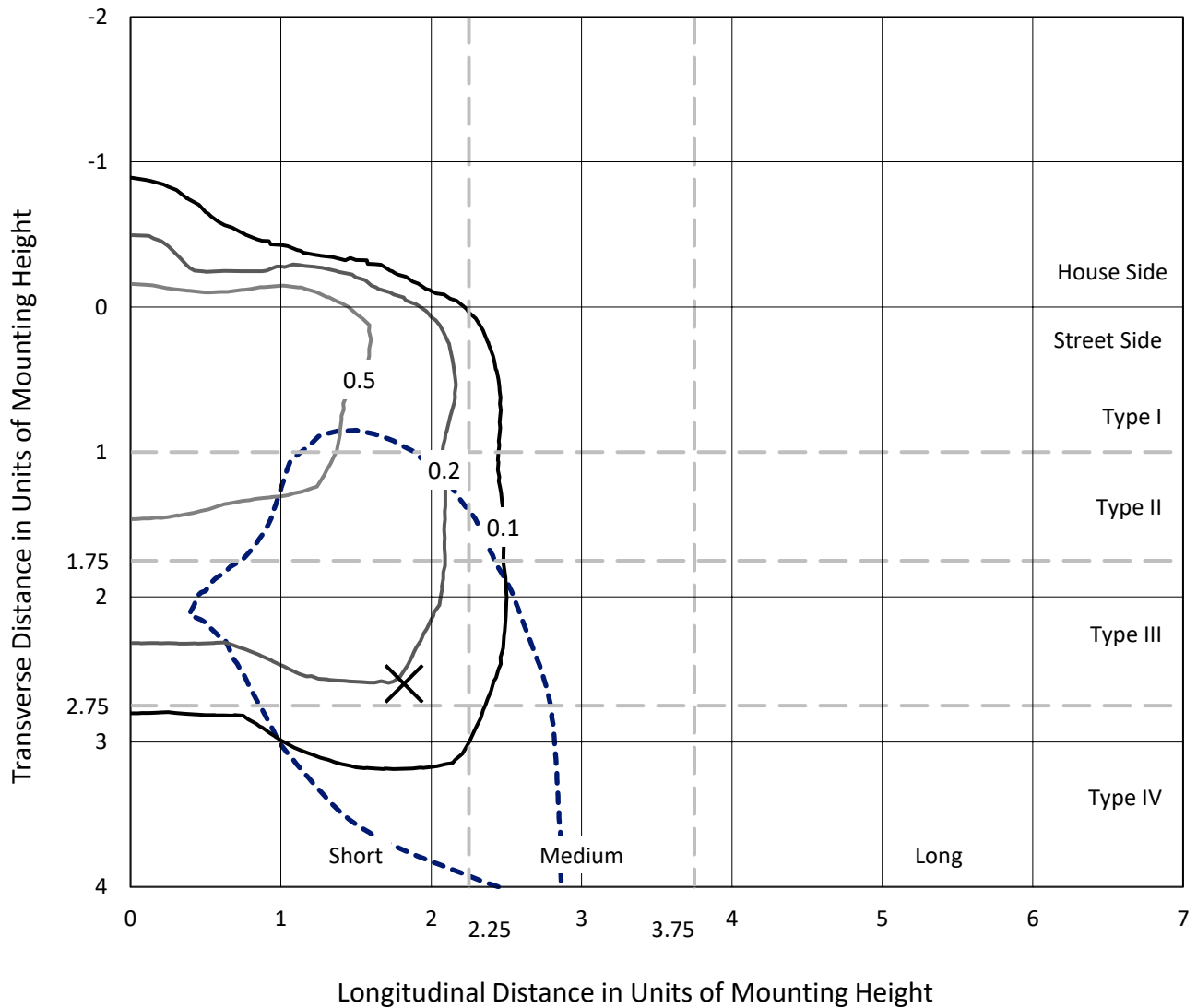
Lumens per Lamp: N/A  
Luminaire Lumens: 4200 lumens  
Efficiency: N/A  
Efficacy: 105.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2  
  
Input Watts (W): 39.8  
Input Voltage (V): 120.0  
Input Current (Ain): 0.33  
Voltage Rise (V): NR  
Power Factor: 0.996  
Total Harmonic Distortion (THDi): 5.305  
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

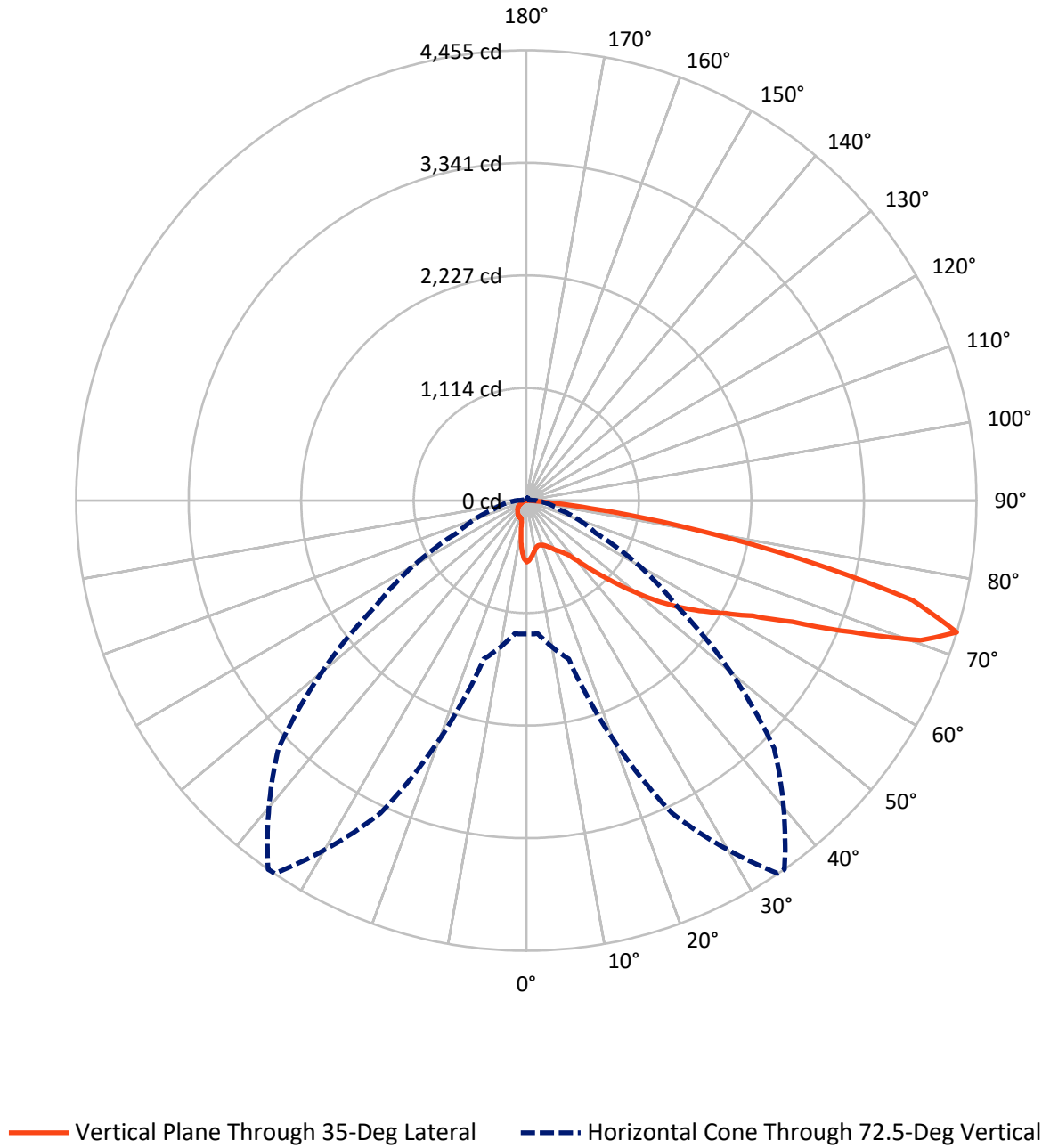
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1 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	472.7	0.0	472.7
	% Fixture	11.3	0.0	11.3
<b>Street Side</b>	Lumens	3727.3	0.0	3727.3
	% Fixture	88.7	0.0	88.7
<b>Total</b>	Lumens	4200.0	0.0	4200.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	50.0	1.2
10°-20°	117.0	2.8
20°-30°	190.1	4.5
30°-40°	317.2	7.6
40°-50°	600.1	14.3
50°-60°	953.5	22.7
60°-70°	1179.6	28.1
70°-80°	733.2	17.5
80°-90°	59.3	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°	4200.0	100.0
0°-180°	4200.0	100.0

**Coefficient of Utilization**



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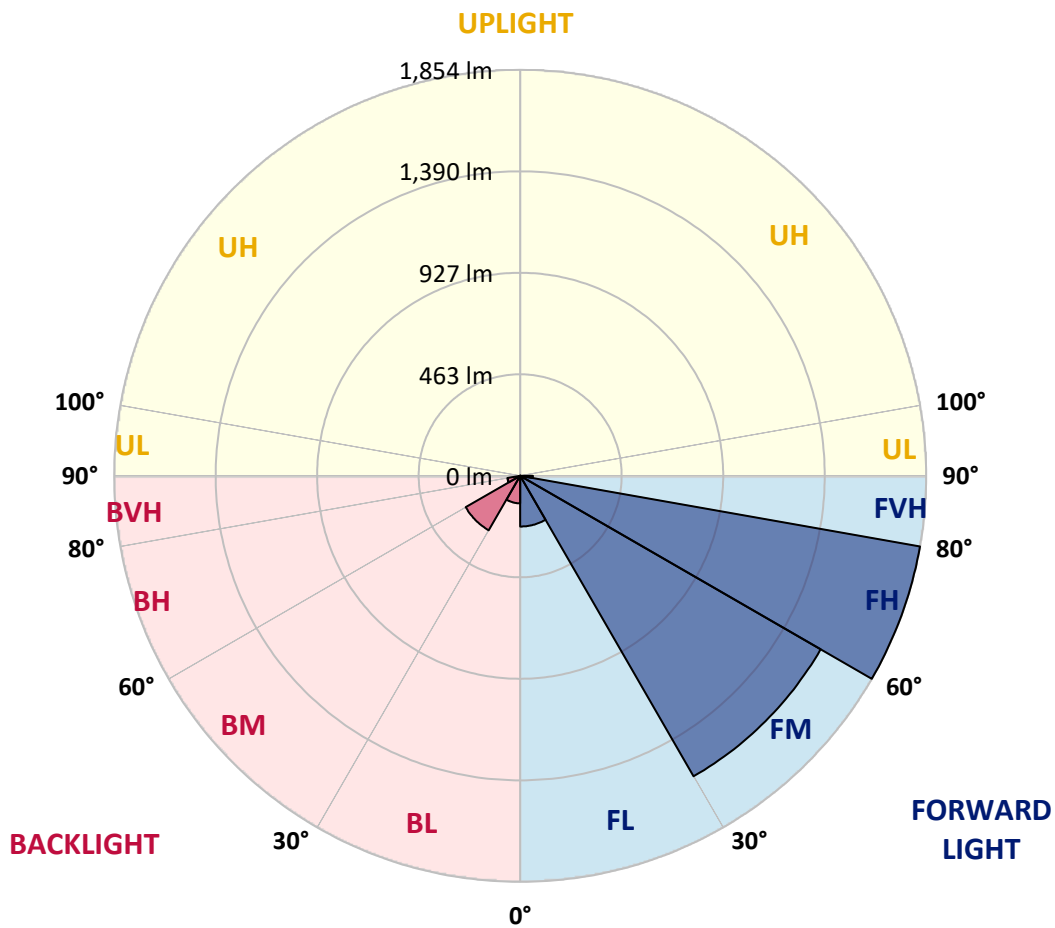
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	231.5	5.5			
FM (30°-60°)	1583.8	37.7			
FH (60°-80°)	1853.5	44.1			G2/5000
FVH (80°-90°)	58.5	1.4			G1/100
BL (0°-30°)	125.6	3.0	B1/500		
BM (30°-60°)	287.0	6.8	B1/1000		
BH (60°-80°)	59.3	1.4	B0/110		G0/110
BVH (80°-90°)	0.8	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-G2**

Type IV Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	608.7	608.7	608.7	608.7	608.7	608.7	608.7	608.7	608.7	608.7	608.7
2.5°	581.6	586.6	587.5	589.0	589.0	590.9	593.9	598.3	605.3	609.0	611.5
5°	536.1	539.8	544.4	548.1	555.2	556.1	568.1	579.8	596.1	608.4	617.0
7.5°	490.2	494.5	500.7	509.6	518.9	521.6	539.8	559.5	585.3	608.4	622.9
10°	457.9	458.2	463.8	472.7	487.5	490.9	513.0	541.0	573.3	604.7	628.4
12.5°	439.8	441.9	444.4	451.2	465.3	467.5	491.2	524.1	561.3	602.6	634.9
15°	439.8	441.3	442.8	446.2	457.6	459.5	480.4	513.3	555.2	603.5	645.3
17.5°	444.4	446.8	445.6	449.6	461.6	462.8	481.3	510.2	554.9	609.3	661.3
20°	455.5	457.3	454.8	457.3	469.3	471.8	490.9	516.1	560.1	619.5	681.3
22.5°	473.0	473.9	468.1	469.9	482.2	485.3	507.5	532.7	572.7	635.8	708.1
25°	495.2	497.0	488.1	490.2	501.9	505.6	531.2	557.6	592.7	658.3	742.3
27.5°	520.7	521.6	513.9	513.6	528.7	533.9	559.8	588.4	619.5	686.6	785.4
30°	549.9	552.7	545.3	544.1	563.2	567.5	593.0	626.3	658.9	729.0	846.6
32.5°	573.0	575.2	570.9	573.9	593.3	596.7	633.3	679.8	720.7	789.4	930.0
35°	606.3	607.5	597.6	603.2	625.3	634.0	688.4	754.9	798.6	865.1	1038.9
37.5°	726.6	726.6	684.7	657.3	678.6	686.3	763.8	849.4	894.6	966.6	1176.2
40°	893.1	890.3	829.1	773.1	770.3	785.4	871.2	968.5	1018.6	1088.5	1330.7
42.5°	1070.6	1066.3	982.9	927.5	918.3	923.5	995.2	1115.3	1166.4	1237.1	1496.9
45°	1228.2	1227.0	1150.7	1076.2	1059.6	1076.2	1150.0	1287.0	1323.6	1398.1	1662.7
47.5°	1360.2	1360.2	1304.5	1255.9	1247.3	1257.1	1359.6	1477.5	1474.1	1569.5	1824.3
50°	1512.3	1511.0	1458.1	1437.2	1446.1	1459.9	1600.9	1678.1	1629.8	1737.8	1968.6
52.5°	1618.7	1626.1	1608.0	1604.6	1650.1	1674.1	1845.9	1874.5	1769.2	1897.6	2076.7
55°	1703.1	1711.7	1732.6	1756.3	1844.0	1875.4	2083.1	2060.7	1885.9	2036.0	2138.8
57.5°	1822.5	1810.2	1842.5	1889.3	2031.1	2069.0	2313.0	2236.4	1979.7	2148.4	2145.6
60°	1967.4	1969.3	1974.8	2033.9	2217.9	2266.5	2539.5	2402.6	2040.0	2217.3	2070.5
62.5°	2141.6	2144.4	2155.8	2246.5	2468.7	2514.6	2780.8	2538.6	2067.7	2197.9	1876.6
65°	2129.6	2141.3	2268.4	2578.9	2850.0	2895.3	3062.4	2634.0	2025.9	2020.7	1528.0
67.5°	1940.0	1959.1	2171.8	2975.9	3424.9	3475.4	3402.7	2652.8	1845.2	1571.3	996.8
70°	1691.4	1698.1	1953.9	3332.9	4090.6	4141.6	3707.4	2446.3	1400.2	876.5	446.5
72.5°	1320.8	1322.4	1622.4	3415.7	4451.8	4454.6	3468.3	1816.0	753.1	336.7	155.1
75°	943.5	934.3	1086.6	2770.0	3916.7	3948.1	2600.1	851.8	287.7	159.1	77.2
77.5°	505.9	516.1	614.9	1642.7	2705.7	2759.2	1418.7	245.6	146.5	108.3	51.1
80°	156.3	165.0	252.0	752.1	1532.6	1564.9	525.9	109.2	102.2	77.2	33.5
82.5°	49.2	51.1	117.6	316.1	636.1	650.9	152.3	61.9	69.9	51.1	19.7
85°	14.2	14.5	52.3	117.9	157.3	160.3	42.8	24.0	40.0	31.7	10.2
87.5°	1.5	4.9	19.7	19.7	13.8	13.5	4.6	5.2	11.4	4.0	1.8
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°	608.7	608.7	608.7	608.7	608.7	608.7	608.7	608.7	608.7	608.7	608.7
2.5°	610.0	610.3	606.3	599.5	592.1	585.9	578.3	572.1	567.8	566.6	568.7
5°	614.3	612.1	600.7	580.1	555.5	534.2	510.5	491.8	479.5	474.2	476.1
7.5°	620.7	614.6	589.6	549.0	501.9	460.1	417.6	384.7	363.8	353.3	354.8
10°	626.3	614.0	571.2	504.1	432.1	368.7	311.4	271.7	249.6	239.1	239.4
12.5°	631.5	613.6	547.2	450.8	353.3	275.7	222.5	202.8	196.6	194.5	193.9
15°	641.3	614.6	517.0	389.9	274.8	208.3	189.0	188.6	189.9	189.3	189.0
17.5°	654.9	615.5	482.9	325.3	212.0	183.7	182.8	185.6	187.4	186.5	186.2
20°	672.4	619.2	446.5	261.3	182.2	177.6	179.7	182.2	183.7	182.2	181.9
22.5°	697.0	625.6	406.8	209.9	172.6	173.9	175.7	178.5	180.0	177.9	177.6
25°	727.2	635.8	367.8	182.5	168.0	169.6	172.3	175.4	177.3	175.1	174.8
27.5°	766.3	652.1	331.7	176.3	163.4	164.3	168.3	173.0	175.4	172.6	172.6
30°	822.9	678.9	300.7	179.1	160.6	158.5	164.0	170.5	173.3	170.8	170.5
32.5°	898.0	716.7	281.6	183.4	159.4	151.7	157.0	165.3	169.9	168.3	168.3
35°	996.5	774.3	274.2	188.3	158.5	144.6	148.3	157.3	165.3	166.8	166.8
37.5°	1115.9	854.3	276.4	190.5	155.7	138.8	140.6	148.3	158.8	163.7	165.0
40°	1251.6	947.5	288.7	188.3	152.6	133.9	134.2	140.0	149.3	156.6	159.1
42.5°	1391.6	1056.5	311.4	180.3	149.9	129.6	128.6	132.6	138.8	144.0	146.2
45°	1524.9	1168.5	333.9	169.3	146.5	125.3	123.1	124.6	125.9	128.0	129.3
47.5°	1641.2	1247.3	327.4	159.1	141.9	120.3	116.6	116.0	112.3	112.0	111.7
50°	1721.5	1264.5	290.8	148.9	135.1	114.8	108.9	105.2	98.8	95.7	96.0
52.5°	1747.1	1196.5	237.6	138.8	124.0	107.4	99.1	93.2	85.2	82.5	82.2
55°	1713.2	1063.3	189.9	126.5	108.6	97.6	88.3	80.6	74.2	70.8	70.8
57.5°	1630.4	893.7	150.2	112.0	92.3	86.5	77.2	69.6	64.0	60.6	60.0
60°	1493.2	709.7	118.8	94.8	78.8	74.5	64.9	60.0	55.1	51.1	50.2
62.5°	1284.8	506.5	93.2	75.1	65.9	60.9	55.4	51.7	45.9	40.3	39.4
65°	1002.6	309.9	72.0	55.1	52.9	50.5	47.1	43.7	36.6	31.1	30.2
67.5°	632.4	146.8	51.4	41.5	41.9	40.6	39.1	36.3	31.1	26.2	25.5
70°	278.5	71.1	33.9	31.7	31.1	31.1	32.3	31.4	26.5	21.8	20.9
72.5°	94.8	38.2	25.2	24.0	22.5	22.2	27.1	26.2	21.2	16.9	16.0
75°	49.5	25.5	18.5	17.2	13.5	16.3	21.5	20.3	15.1	11.1	10.2
77.5°	32.3	18.2	12.6	11.1	7.7	10.8	16.0	14.2	8.9	5.5	4.9
80°	20.3	12.0	7.4	5.2	3.7	5.8	8.6	6.2	3.4	1.2	0.9
82.5°	10.8	6.2	2.8	1.8	1.5	1.8	2.2	1.5	0.6	0.0	0.0
85°	4.3	2.2	0.9	0.6	0.3	0.0	0.6	0.3	0.0	0.0	0.0
87.5°	1.5	0.3	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)