

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: P881740

Luminaire Tested: **NAV-SB1B-740-U-T4FT-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P881740  
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-740-U-T4FT-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 70 CRI, 4000K, 450mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV FORWARD  
THROW OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

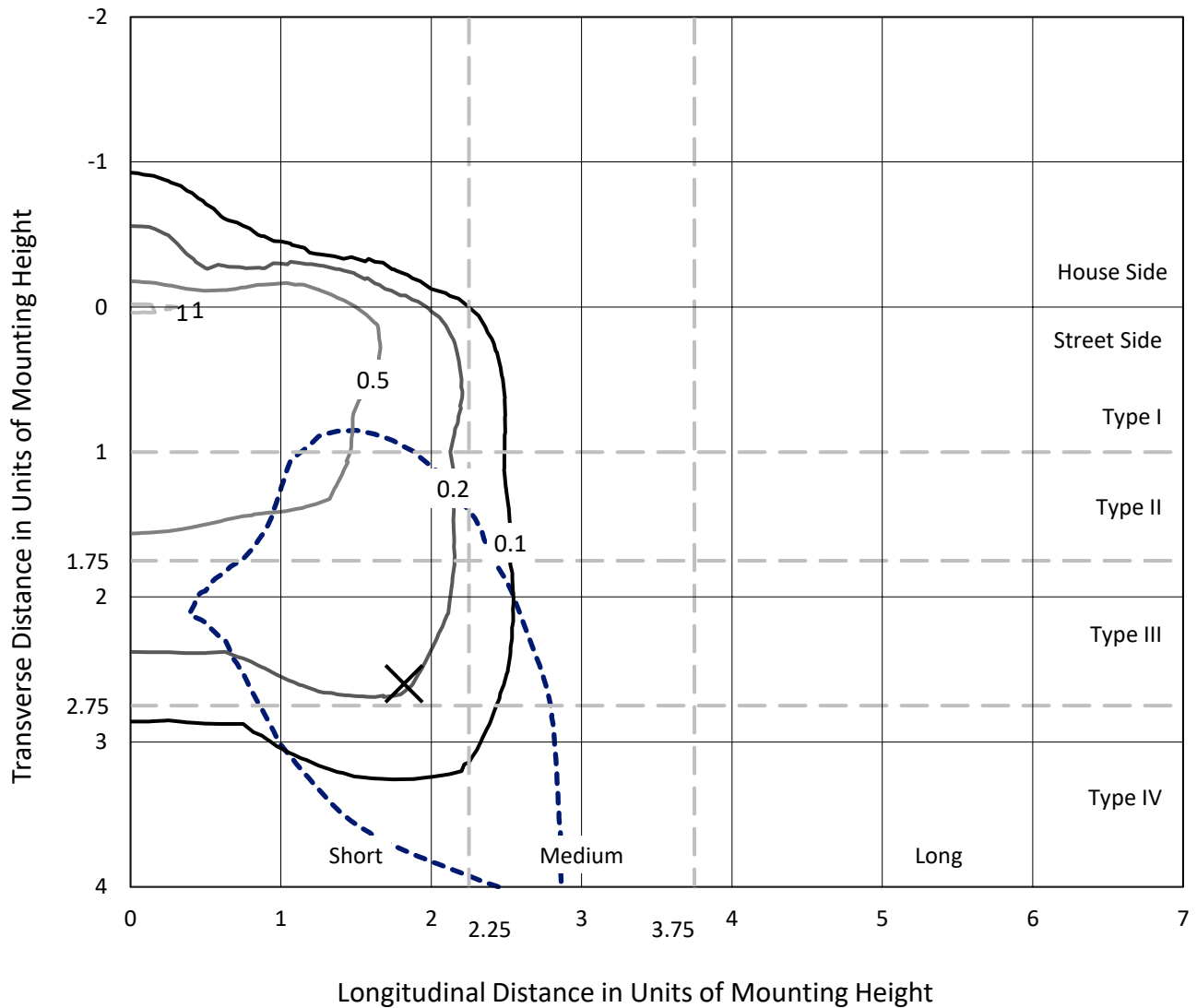
Lumens per Lamp: N/A  
Luminaire Lumens: 4600 lumens  
Efficiency: N/A  
Efficacy: 115.6 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2  
  
Input Watts (W): 39.8  
Input Voltage (V): 120.0  
Input Current (Ain): 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

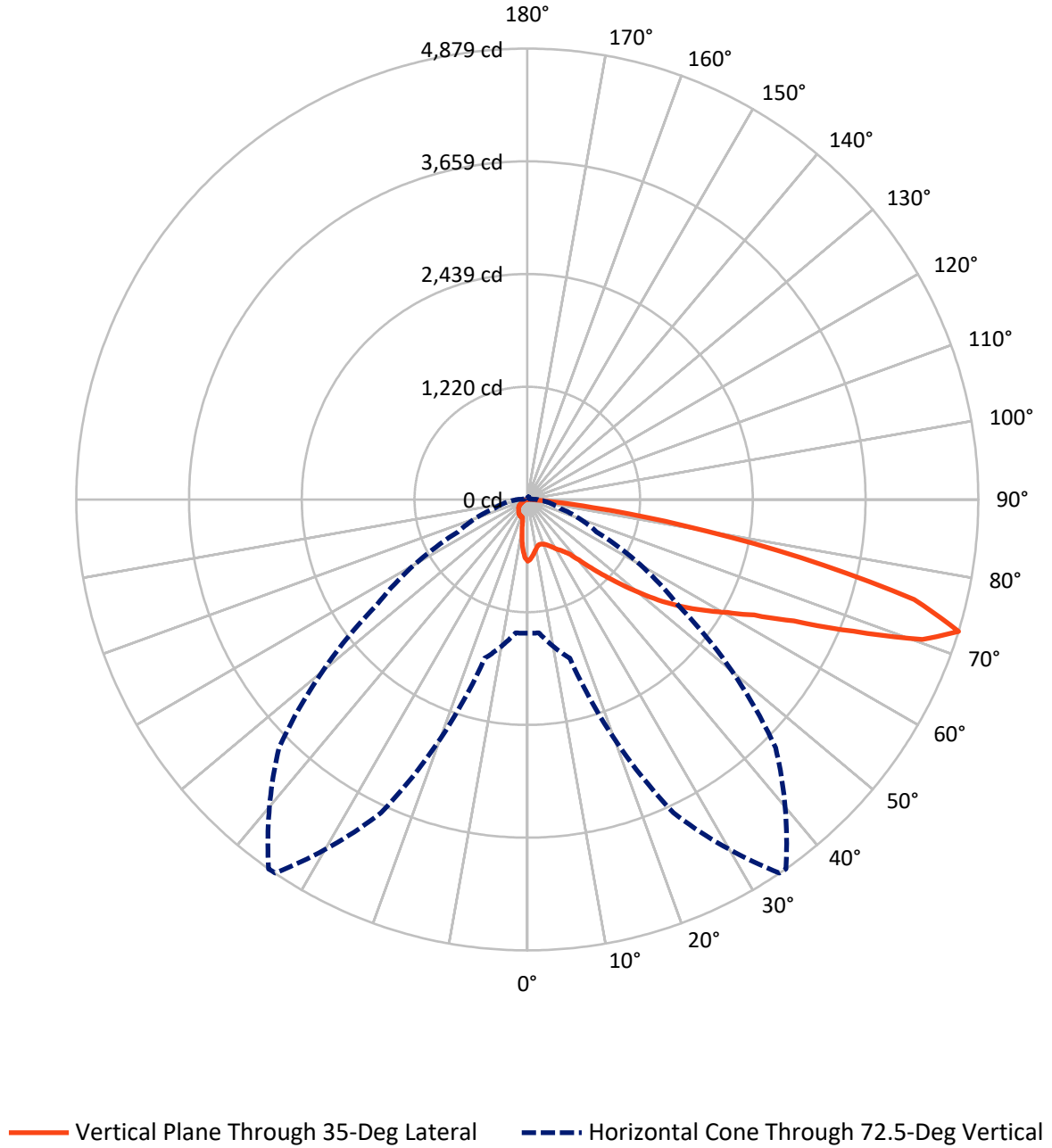
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.1 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	517.7	0.0	517.7
	% Fixture	11.3	0.0	11.3
<b>Street Side</b>	Lumens	4082.3	0.0	4082.3
	% Fixture	88.7	0.0	88.7
<b>Total</b>	Lumens	4600.0	0.0	4600.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	54.8	1.2
10°-20°	128.2	2.8
20°-30°	208.2	4.5
30°-40°	347.4	7.6
40°-50°	657.2	14.3
50°-60°	1044.3	22.7
60°-70°	1291.9	28.1
70°-80°	803.1	17.5
80°-90°	64.9	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°	4600.0	100.0
0°-180°	4600.0	100.0

**Coefficient of Utilization**



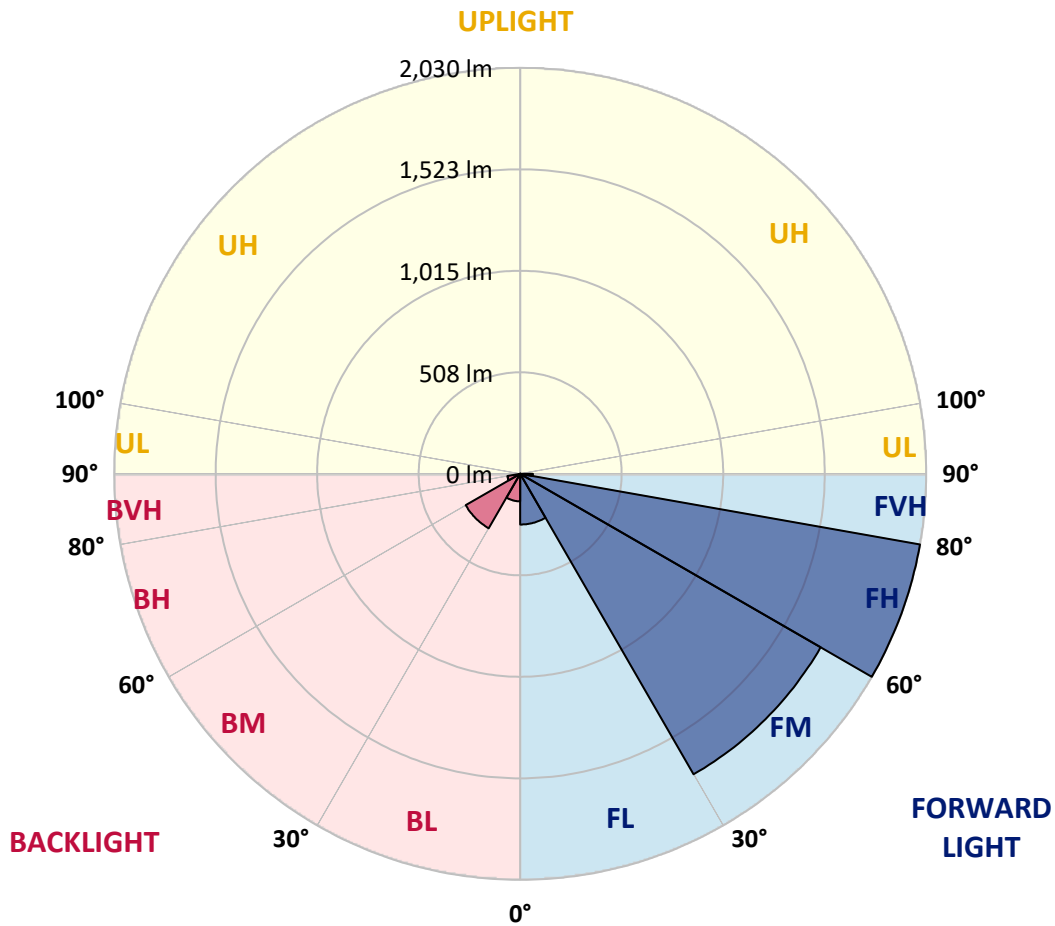
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	253.6	5.5			
FM (30°-60°)	1734.7	37.7			
FH (60°-80°)	2030.0	44.1			G2/5000
FVH (80°-90°)	64.0	1.4			G1/100
BL (0°-30°)	137.6	3.0	B1/500		
BM (30°-60°)	314.3	6.8	B1/1000		
BH (60°-80°)	65.0	1.4	B0/110		G0/110
BVH (80°-90°)	0.9	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°	666.7	666.7	666.7	666.7	666.7	666.7	666.7	666.7	666.7	666.7	666.7
2.5°	637.0	642.4	643.4	645.1	645.1	647.1	650.5	655.2	663.0	667.0	669.7
5°	587.1	591.2	596.2	600.3	608.0	609.1	622.2	635.0	652.9	666.4	675.8
7.5°	536.9	541.6	548.4	558.2	568.3	571.3	591.2	612.8	641.1	666.4	682.2
10°	501.5	501.9	507.9	517.7	533.9	537.6	561.9	592.5	627.9	662.3	688.3
12.5°	481.7	484.0	486.7	494.1	509.6	512.0	537.9	574.0	614.8	660.0	695.3
15°	481.7	483.3	485.0	488.7	501.2	503.2	526.1	562.2	608.0	661.0	706.8
17.5°	486.7	489.4	488.1	492.4	505.6	506.9	527.2	558.8	607.7	667.4	724.3
20°	498.8	500.9	498.2	500.9	514.0	516.7	537.6	565.2	613.4	678.5	746.2
22.5°	518.1	519.1	512.7	514.7	528.2	531.5	555.8	583.4	627.3	696.4	775.6
25°	542.3	544.3	534.6	536.9	549.7	553.8	581.8	610.7	649.2	721.0	813.0
27.5°	570.3	571.3	562.9	562.5	579.1	584.8	613.1	644.4	678.5	752.0	860.2
30°	602.3	605.4	597.3	595.9	616.8	621.5	649.5	685.9	721.6	798.5	927.2
32.5°	627.6	630.0	625.2	628.6	649.8	653.5	693.7	744.6	789.4	864.5	1018.6
35°	664.0	665.3	654.6	660.6	684.9	694.3	754.0	826.8	874.7	947.5	1137.9
37.5°	795.8	795.8	749.9	719.9	743.2	751.6	836.6	930.3	979.8	1058.7	1288.2
40°	978.1	975.1	908.0	846.7	843.6	860.2	954.2	1060.7	1115.7	1192.2	1457.4
42.5°	1172.6	1167.9	1076.6	1015.9	1005.8	1011.5	1090.0	1221.5	1277.4	1355.0	1639.4
45°	1345.2	1343.8	1260.2	1178.7	1160.5	1178.7	1259.6	1409.6	1449.7	1531.2	1821.1
47.5°	1489.8	1489.8	1428.8	1375.5	1366.1	1376.9	1489.1	1618.2	1614.5	1719.0	1998.1
50°	1656.3	1654.9	1597.0	1574.0	1583.8	1599.0	1753.4	1838.0	1785.0	1903.3	2156.1
52.5°	1772.9	1781.0	1761.1	1757.4	1807.3	1833.6	2021.7	2053.0	1937.7	2078.3	2274.4
55°	1865.3	1874.7	1897.6	1923.6	2019.6	2054.0	2281.5	2256.9	2065.5	2230.0	2342.5
57.5°	1996.0	1982.6	2017.9	2069.2	2224.6	2266.0	2533.3	2449.4	2168.3	2353.0	2349.9
60°	2154.8	2156.8	2162.9	2227.6	2429.2	2482.4	2781.4	2631.4	2234.3	2428.5	2267.7
62.5°	2345.6	2348.6	2361.1	2460.5	2703.9	2754.1	3045.6	2780.4	2264.7	2407.2	2055.4
65°	2332.4	2345.2	2484.4	2824.5	3121.5	3171.0	3354.0	2884.9	2218.8	2213.1	1673.5
67.5°	2124.8	2145.7	2378.6	3259.3	3751.1	3806.4	3726.8	2905.4	2021.0	1721.0	1091.7
70°	1852.5	1859.9	2140.0	3650.3	4480.1	4536.1	4060.5	2679.2	1533.6	959.9	489.1
72.5°	1446.6	1448.3	1777.0	3741.0	4875.8	4878.9	3798.6	1989.0	824.8	368.7	169.9
75°	1033.4	1023.3	1190.1	3033.8	4289.7	4324.1	2847.8	933.0	315.1	174.3	84.6
77.5°	554.1	565.2	673.4	1799.2	2963.4	3022.0	1553.8	269.0	160.4	118.6	56.0
80°	171.2	180.7	276.0	823.8	1678.5	1713.9	576.0	119.7	111.9	84.6	36.7
82.5°	53.9	56.0	128.8	346.2	696.7	712.9	166.8	67.7	76.5	56.0	21.6
85°	15.5	15.8	57.3	129.1	172.2	175.6	46.9	26.3	43.8	34.7	11.1
87.5°	1.7	5.4	21.6	21.6	15.2	14.8	5.1	5.7	12.5	4.4	2.0
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°	666.7	666.7	666.7	666.7	666.7	666.7	666.7	666.7	666.7	666.7	666.7
2.5°	668.0	668.4	664.0	656.6	648.5	641.8	633.3	626.6	621.9	620.5	622.9
5°	672.8	670.4	657.9	635.3	608.4	585.1	559.2	538.6	525.1	519.4	521.4
7.5°	679.8	673.1	645.8	601.3	549.7	503.9	457.4	421.3	398.4	386.9	388.6
10°	685.9	672.4	625.6	552.1	473.2	403.8	341.1	297.6	273.4	261.9	262.2
12.5°	691.6	672.1	599.3	493.8	386.9	302.0	243.7	222.1	215.4	213.0	212.3
15°	702.4	673.1	566.3	427.0	301.0	228.2	207.0	206.6	208.0	207.3	207.0
17.5°	717.3	674.1	528.8	356.3	232.2	201.2	200.2	203.2	205.3	204.3	203.9
20°	736.5	678.2	489.1	286.2	199.5	194.5	196.8	199.5	201.2	199.5	199.2
22.5°	763.4	685.2	445.6	229.9	189.1	190.4	192.5	195.5	197.2	194.8	194.5
25°	796.5	696.4	402.8	199.9	184.0	185.7	188.8	192.1	194.1	191.8	191.4
27.5°	839.3	714.2	363.3	193.1	179.0	180.0	184.4	189.4	192.1	189.1	189.1
30°	901.3	743.5	329.3	196.2	175.9	173.6	179.7	186.7	189.8	187.1	186.7
32.5°	983.5	785.0	308.4	200.9	174.6	166.2	171.9	181.0	186.1	184.4	184.4
35°	1091.4	848.0	300.3	206.3	173.6	158.4	162.5	172.2	181.0	182.7	182.7
37.5°	1222.2	935.7	302.7	208.6	170.5	152.0	154.0	162.5	173.9	179.3	180.7
40°	1370.8	1037.8	316.2	206.3	167.2	146.6	147.0	153.4	163.5	171.6	174.3
42.5°	1524.2	1157.1	341.1	197.5	164.1	141.9	140.9	145.3	152.0	157.7	160.1
45°	1670.1	1279.8	365.7	185.4	160.4	137.2	134.8	136.5	137.9	140.2	141.6
47.5°	1797.5	1366.1	358.6	174.3	155.4	131.8	127.7	127.1	123.0	122.7	122.4
50°	1885.5	1385.0	318.5	163.1	148.0	125.7	119.3	115.3	108.2	104.8	105.2
52.5°	1913.5	1310.5	260.2	152.0	135.8	117.6	108.5	102.1	93.4	90.3	90.0
55°	1876.4	1164.5	208.0	138.5	119.0	106.8	96.7	88.3	81.2	77.5	77.5
57.5°	1785.7	978.8	164.5	122.7	101.1	94.7	84.6	76.2	70.1	66.4	65.7
60°	1635.4	777.2	130.1	103.8	86.3	81.6	71.1	65.7	60.3	56.0	54.9
62.5°	1407.2	554.8	102.1	82.2	72.1	66.7	60.7	56.6	50.2	44.2	43.1
65°	1098.1	339.4	78.9	60.3	58.0	55.3	51.6	47.9	40.1	34.0	33.0
67.5°	692.6	160.8	56.3	45.5	45.8	44.5	42.8	39.8	34.0	28.6	28.0
70°	305.0	77.9	37.1	34.7	34.0	34.0	35.4	34.4	29.0	23.9	22.9
72.5°	103.8	41.8	27.6	26.3	24.6	24.3	29.7	28.6	23.3	18.5	17.5
75°	54.3	28.0	20.2	18.9	14.8	17.9	23.6	22.2	16.5	12.1	11.1
77.5°	35.4	19.9	13.8	12.1	8.4	11.8	17.5	15.5	9.8	6.1	5.4
80°	22.2	13.1	8.1	5.7	4.0	6.4	9.4	6.7	3.7	1.3	1.0
82.5°	11.8	6.7	3.0	2.0	1.7	2.0	2.4	1.7	0.7	0.0	0.0
85°	4.7	2.4	1.0	0.7	0.3	0.0	0.7	0.3	0.0	0.0	0.0
87.5°	1.7	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)