

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: P881710

Luminaire Tested: **NAV-SB1B-727-U-T4FT-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P881710  
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-727-U-T4FT-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 70 CRI, 2700K, 450mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV FORWARD  
THROW OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

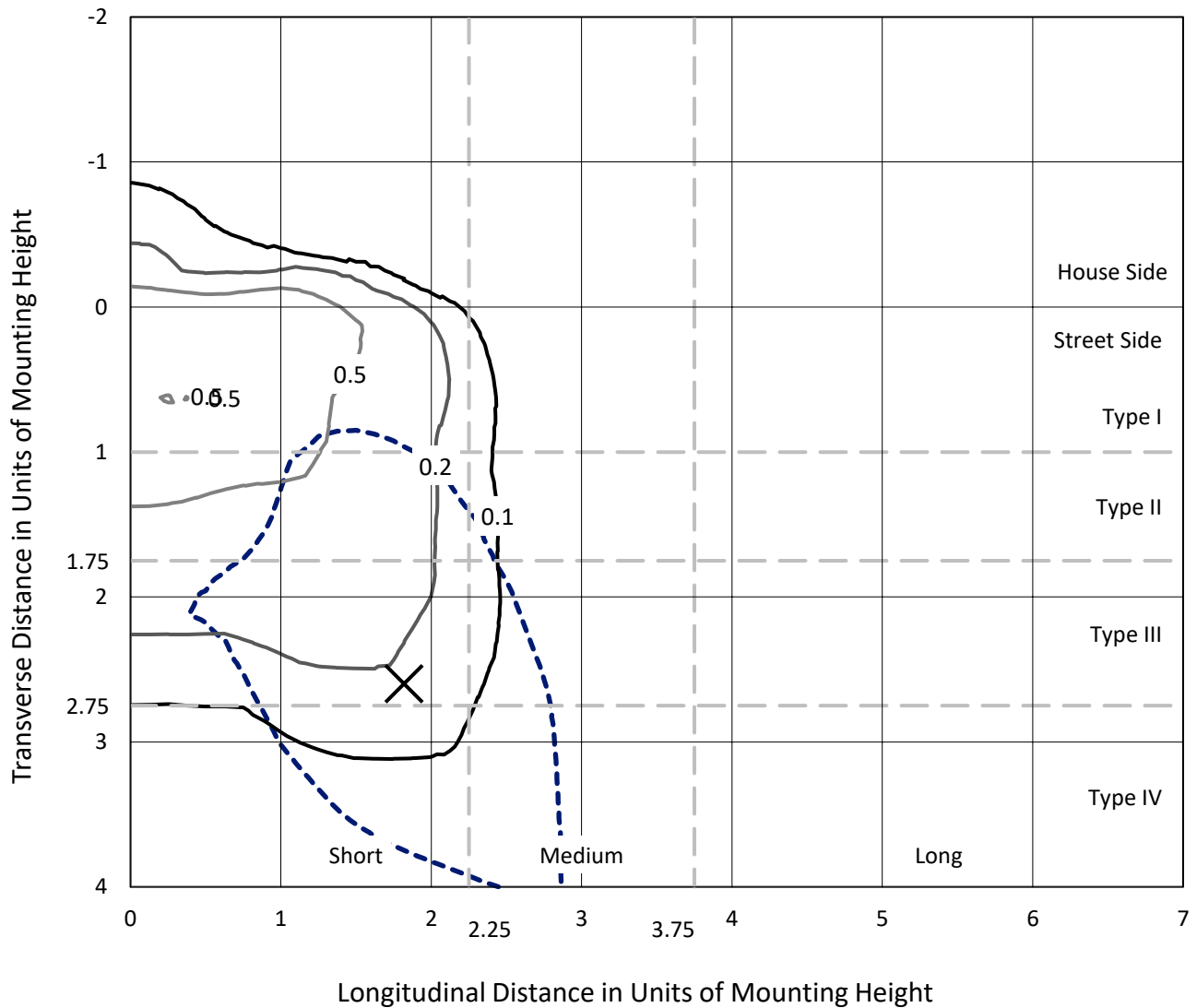
Lumens per Lamp: N/A  
Luminaire Lumens: 3867 lumens  
Efficiency: N/A  
Efficacy: 97.2 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G1  
  
Input Watts (W): 39.8  
Input Voltage (V): 120.0  
Input Current (Ain): 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

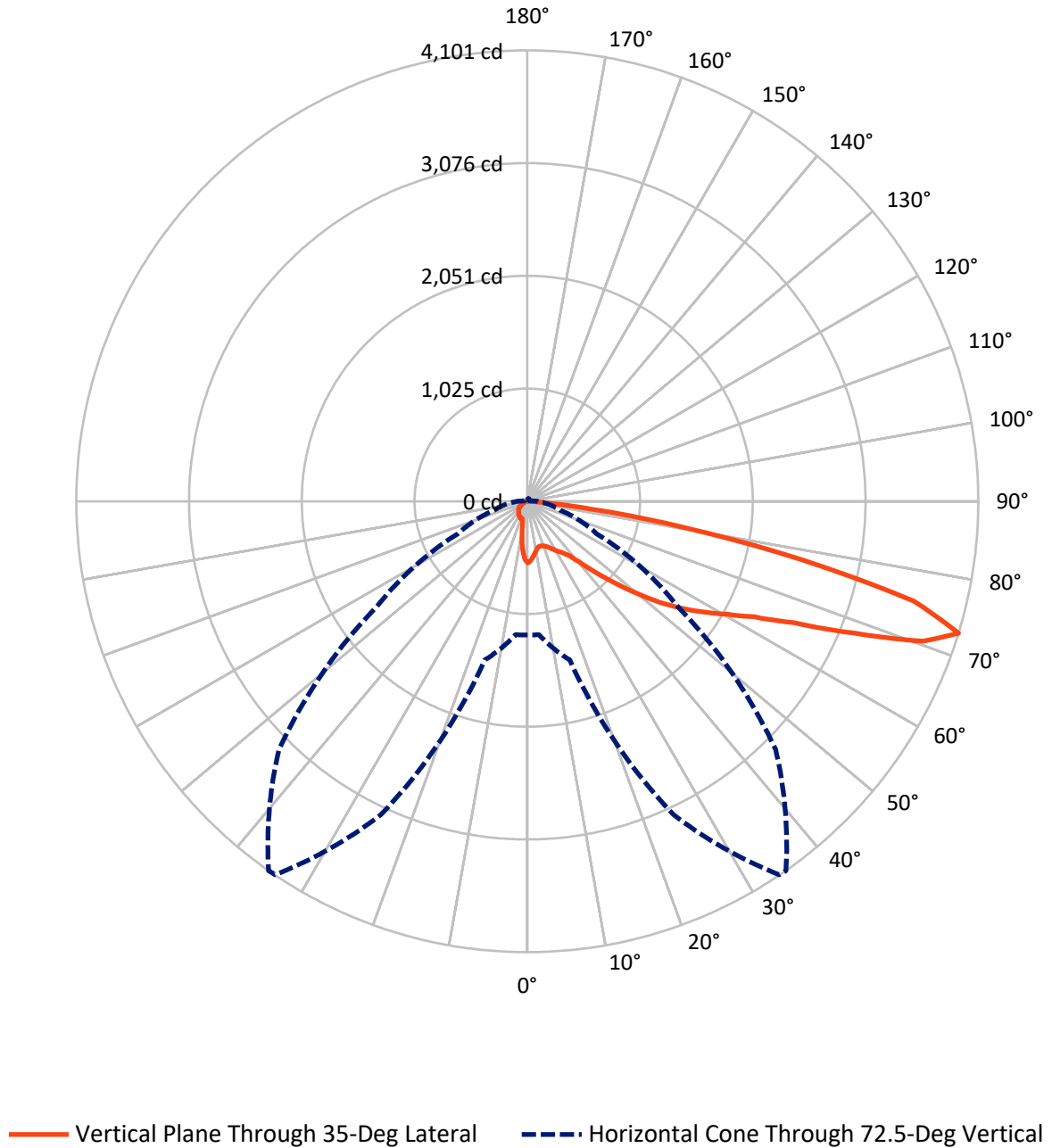
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.9 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	435.2	0.0	435.2
	% Fixture	11.3	0.0	11.3
<b>Street Side</b>	Lumens	3431.8	0.0	3431.8
	% Fixture	88.7	0.0	88.7
<b>Total</b>	Lumens	3867.0	0.0	3867.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	46.1	1.2
10°-20°	107.7	2.8
20°-30°	175.0	4.5
30°-40°	292.0	7.6
40°-50°	552.5	14.3
50°-60°	877.9	22.7
60°-70°	1086.1	28.1
70°-80°	675.1	17.5
80°-90°	54.6	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°	3867.0	100.0
0°-180°	3867.0	100.0

**Coefficient of Utilization**



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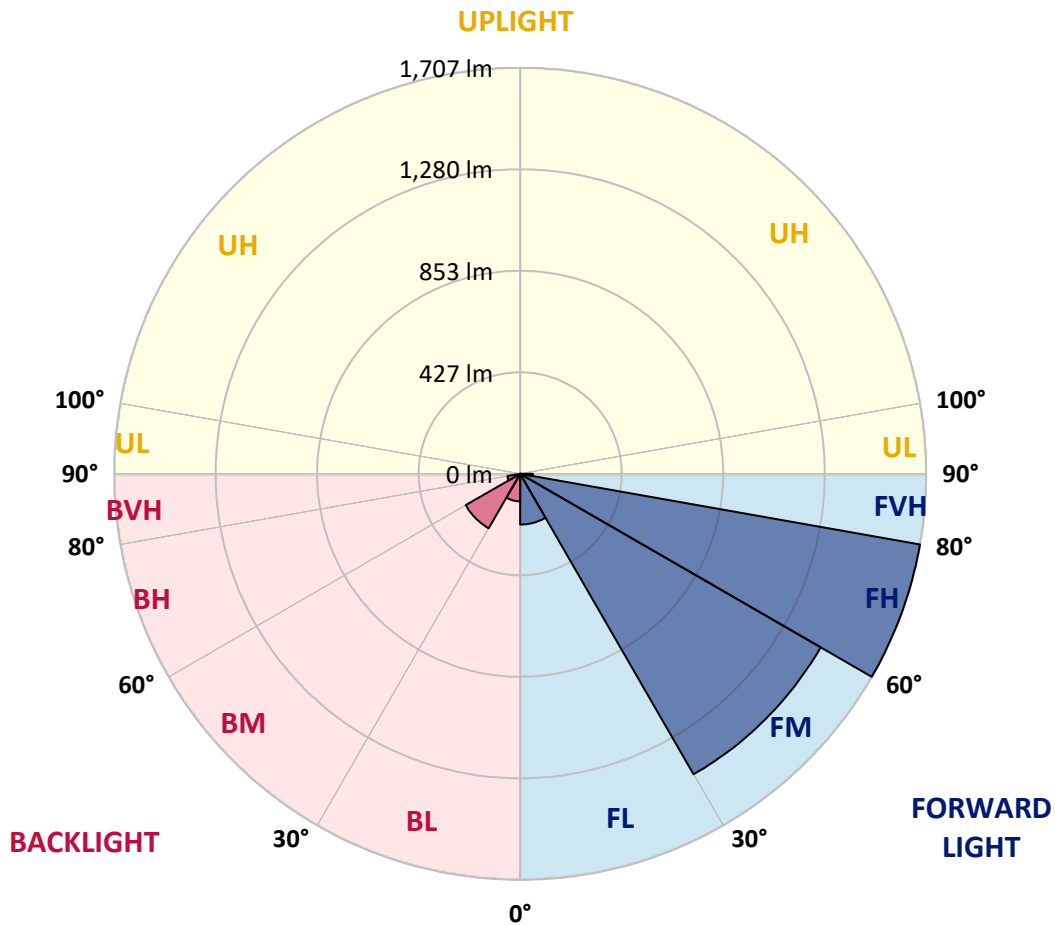
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	213.2	5.5			
FM (30°-60°)	1458.3	37.7			
FH (60°-80°)	1706.6	44.1			G1/1800
FVH (80°-90°)	53.8	1.4			G1/100
BL (0°-30°)	115.6	3.0	B1/500		
BM (30°-60°)	264.2	6.8	B1/1000		
BH (60°-80°)	54.6	1.4	B0/110		G0/110
BVH (80°-90°)	0.7	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-G1**

Type IV Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	560.5	560.5	560.5	560.5	560.5	560.5	560.5	560.5	560.5	560.5	560.5
2.5°	535.5	540.1	540.9	542.3	542.3	544.0	546.9	550.8	557.3	560.7	563.0
5°	493.6	497.0	501.2	504.6	511.2	512.0	523.1	533.8	548.8	560.2	568.1
7.5°	451.4	455.3	461.0	469.2	477.7	480.3	497.0	515.1	538.9	560.2	573.5
10°	421.6	421.9	427.0	435.2	448.8	451.9	472.3	498.1	527.9	556.8	578.6
12.5°	404.9	406.9	409.2	415.4	428.4	430.4	452.2	482.5	516.8	554.8	584.5
15°	404.9	406.3	407.7	410.9	421.3	423.0	442.3	472.6	511.2	555.6	594.2
17.5°	409.2	411.4	410.3	414.0	425.0	426.2	443.2	469.8	510.9	561.0	608.9
20°	419.4	421.1	418.8	421.1	432.1	434.4	451.9	475.2	515.7	570.4	627.3
22.5°	435.5	436.4	431.0	432.7	444.0	446.8	467.2	490.5	527.3	585.4	652.0
25°	455.9	457.6	449.4	451.4	462.1	465.5	489.1	513.4	545.7	606.1	683.4
27.5°	479.4	480.3	473.2	472.9	486.8	491.6	515.4	541.8	570.4	632.1	723.1
30°	506.3	508.9	502.1	501.0	518.5	522.5	546.0	576.6	606.6	671.2	779.5
32.5°	527.6	529.6	525.6	528.4	546.3	549.4	583.1	625.9	663.6	726.8	856.3
35°	558.2	559.3	550.3	555.4	575.8	583.7	633.8	695.0	735.3	796.5	956.6
37.5°	669.0	669.0	630.4	605.2	624.8	631.9	703.3	782.0	823.7	890.0	1082.9
40°	822.3	819.7	763.3	711.8	709.2	723.1	802.2	891.7	937.9	1002.2	1225.2
42.5°	985.8	981.8	905.0	854.0	845.5	850.3	916.3	1026.8	1073.9	1139.1	1378.2
45°	1130.8	1129.7	1059.4	990.9	975.6	990.9	1058.9	1185.0	1218.7	1287.2	1530.9
47.5°	1252.4	1252.4	1201.1	1156.3	1148.4	1157.5	1251.8	1360.3	1357.2	1445.1	1679.7
50°	1392.4	1391.2	1342.5	1323.2	1331.4	1344.2	1474.0	1545.1	1500.6	1600.1	1812.6
52.5°	1490.4	1497.2	1480.5	1477.4	1519.3	1541.4	1699.5	1725.9	1629.0	1747.1	1912.0
55°	1568.0	1576.0	1595.2	1617.1	1697.8	1726.7	1918.0	1897.3	1736.3	1874.6	1969.3
57.5°	1678.0	1666.6	1696.4	1739.5	1870.1	1904.9	2129.6	2059.1	1822.8	1978.0	1975.5
60°	1811.4	1813.1	1818.2	1872.6	2042.1	2086.8	2338.2	2212.1	1878.3	2041.5	1906.4
62.5°	1971.8	1974.4	1984.8	2068.4	2273.0	2315.2	2560.3	2337.3	1903.8	2023.7	1727.8
65°	1960.8	1971.5	2088.5	2374.4	2624.1	2665.7	2819.6	2425.2	1865.3	1860.4	1406.8
67.5°	1786.2	1803.8	1999.6	2740.0	3153.4	3199.8	3133.0	2442.4	1698.9	1446.8	917.8
70°	1557.3	1563.5	1799.0	3068.6	3766.2	3813.3	3413.5	2252.3	1289.2	807.0	411.1
72.5°	1216.1	1217.5	1493.8	3144.9	4098.9	4101.4	3193.3	1672.0	693.3	310.0	142.8
75°	868.7	860.2	1000.5	2550.4	3606.1	3635.0	2394.0	784.3	264.9	146.5	71.1
77.5°	465.8	475.2	566.1	1512.5	2491.2	2540.5	1306.2	226.1	134.9	99.7	47.0
80°	143.9	151.9	232.1	692.5	1411.1	1440.8	484.2	100.6	94.1	71.1	30.9
82.5°	45.3	47.0	108.2	291.0	585.7	599.3	140.3	57.0	64.3	47.0	18.1
85°	13.0	13.3	48.2	108.5	144.8	147.6	39.4	22.1	36.8	29.2	9.4
87.5°	1.4	4.5	18.1	18.1	12.8	12.5	4.3	4.8	10.5	3.7	1.7
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°	560.5	560.5	560.5	560.5	560.5	560.5	560.5	560.5	560.5	560.5	560.5
2.5°	561.6	561.9	558.2	552.0	545.2	539.5	532.4	526.7	522.8	521.6	523.6
5°	565.6	563.6	553.1	534.1	511.4	491.9	470.1	452.8	441.5	436.6	438.3
7.5°	571.5	565.8	542.9	505.5	462.1	423.6	384.5	354.2	334.9	325.3	326.7
10°	576.6	565.3	525.9	464.1	397.8	339.4	286.7	250.2	229.8	220.2	220.4
12.5°	581.4	565.0	503.8	415.1	325.3	253.9	204.9	186.7	181.1	179.1	178.5
15°	590.5	565.8	476.0	359.0	253.0	191.8	174.0	173.7	174.8	174.3	174.0
17.5°	603.0	566.7	444.6	299.5	195.2	169.2	168.3	170.9	172.6	171.7	171.4
20°	619.1	570.1	411.1	240.6	167.7	163.5	165.5	167.7	169.2	167.7	167.5
22.5°	641.8	576.0	374.6	193.2	159.0	160.1	161.8	164.3	165.8	163.8	163.5
25°	669.5	585.4	338.6	168.0	154.7	156.1	158.7	161.5	163.2	161.2	160.9
27.5°	705.5	600.4	305.4	162.4	150.5	151.3	155.0	159.2	161.5	159.0	159.0
30°	757.7	625.1	276.8	164.9	147.9	145.9	151.0	157.0	159.5	157.3	157.0
32.5°	826.8	659.9	259.3	168.9	146.8	139.7	144.5	152.2	156.4	155.0	155.0
35°	917.5	712.9	252.5	173.4	145.9	133.2	136.6	144.8	152.2	153.6	153.6
37.5°	1027.4	786.6	254.4	175.4	143.4	127.8	129.5	136.6	146.2	150.7	151.9
40°	1152.4	872.4	265.8	173.4	140.5	123.3	123.5	128.9	137.4	144.2	146.5
42.5°	1281.3	972.7	286.7	166.0	138.0	119.3	118.4	122.1	127.8	132.6	134.6
45°	1404.0	1075.9	307.4	155.8	134.9	115.3	113.3	114.8	115.9	117.9	119.0
47.5°	1511.1	1148.4	301.5	146.5	130.6	110.8	107.4	106.8	103.4	103.1	102.9
50°	1585.0	1164.3	267.8	137.1	124.4	105.7	100.3	96.9	91.0	88.1	88.4
52.5°	1608.6	1101.6	218.7	127.8	114.2	98.9	91.2	85.9	78.5	75.9	75.7
55°	1577.4	979.0	174.8	116.5	100.0	89.8	81.3	74.2	68.3	65.2	65.2
57.5°	1501.2	822.8	138.3	103.1	85.0	79.6	71.1	64.0	58.9	55.8	55.3
60°	1374.8	653.4	109.4	87.3	72.5	68.6	59.8	55.3	50.7	47.0	46.2
62.5°	1183.0	466.4	85.9	69.1	60.6	56.1	51.0	47.6	42.2	37.1	36.3
65°	923.1	285.3	66.3	50.7	48.7	46.5	43.4	40.2	33.7	28.6	27.8
67.5°	582.3	135.2	47.3	38.3	38.5	37.4	36.0	33.4	28.6	24.1	23.5
70°	256.4	65.5	31.2	29.2	28.6	28.6	29.8	28.9	24.4	20.1	19.3
72.5°	87.3	35.1	23.2	22.1	20.7	20.4	24.9	24.1	19.6	15.6	14.7
75°	45.6	23.5	17.0	15.9	12.5	15.0	19.8	18.7	13.9	10.2	9.4
77.5°	29.8	16.7	11.6	10.2	7.1	9.9	14.7	13.0	8.2	5.1	4.5
80°	18.7	11.1	6.8	4.8	3.4	5.4	7.9	5.7	3.1	1.1	0.9
82.5°	9.9	5.7	2.6	1.7	1.4	1.7	2.0	1.4	0.6	0.0	0.0
85°	4.0	2.0	0.9	0.6	0.3	0.0	0.6	0.3	0.0	0.0	0.0
87.5°	1.4	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)