

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: P961053

Luminaire Tested: **NAV-SB1D-835-U-SL2-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961053
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-11)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1D-835-U-SL2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 3500K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE II SPILL LIGHT
ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7844.3 lumens
Efficiency: N/A
Efficacy: 98.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G2

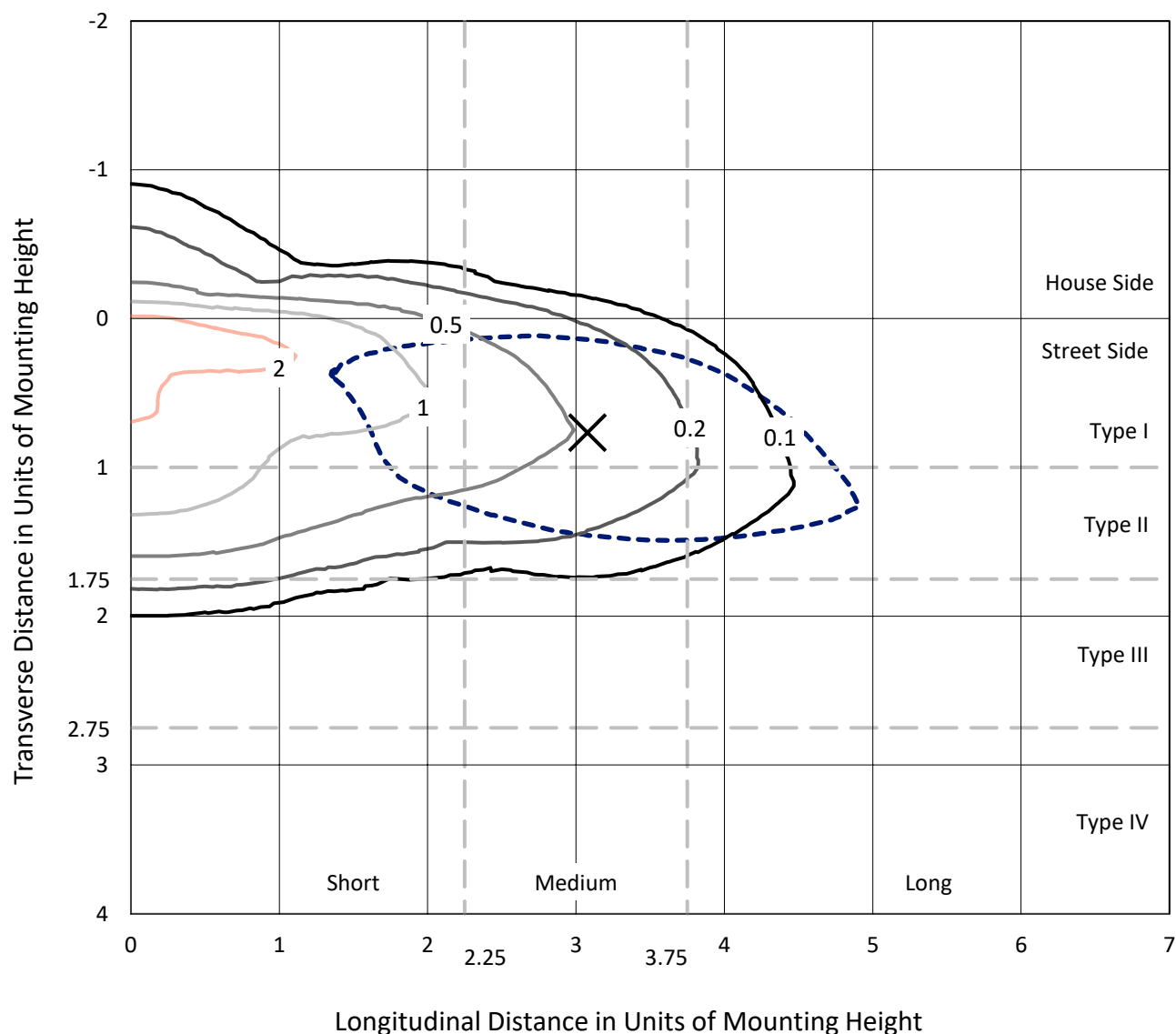
Input Watts (W): 79.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

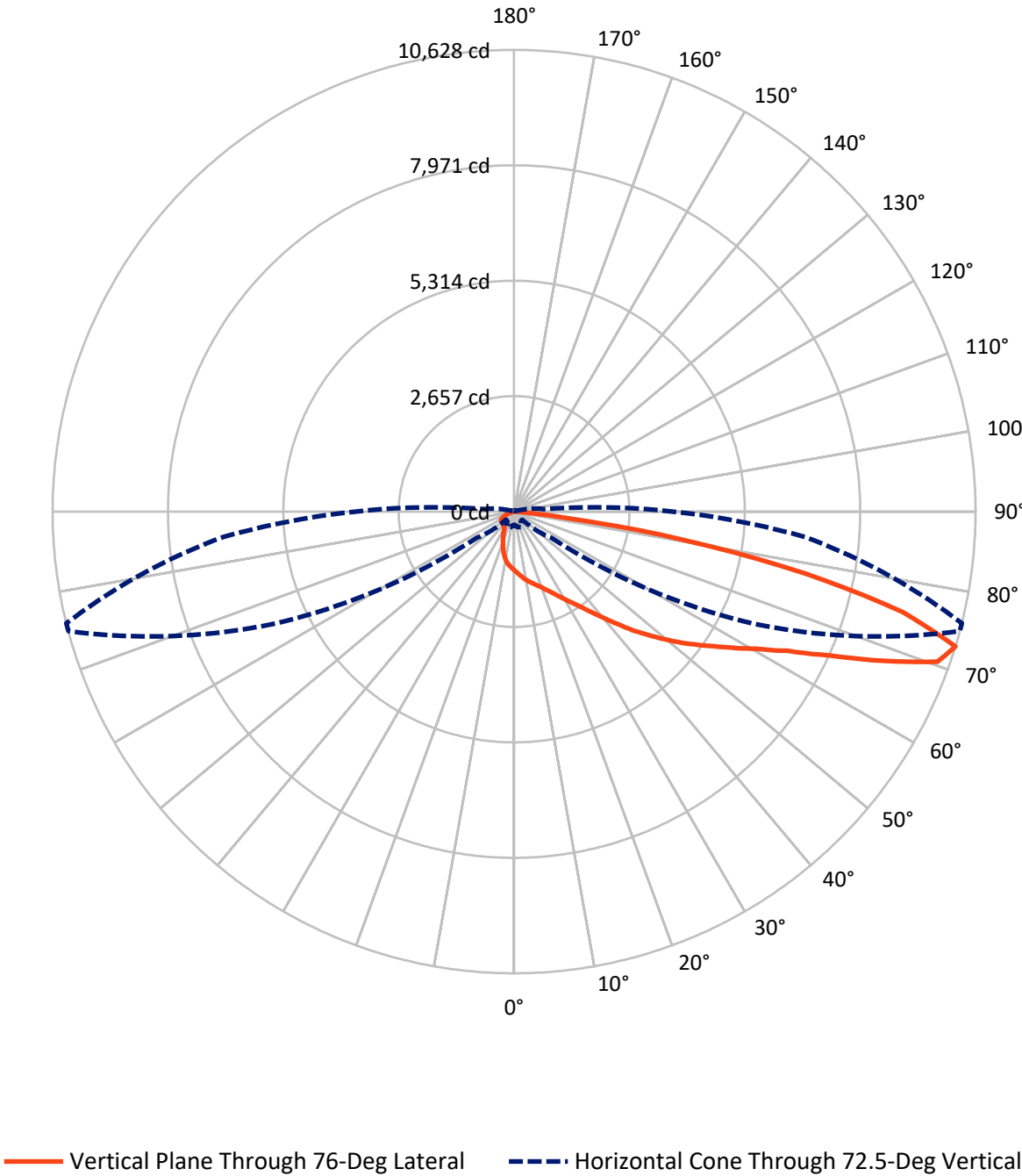
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.9 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	802.9	0.0	802.9
	% Fixture	10.2	0.0	10.2
Street Side	Lumens	7041.4	0.0	7041.4
	% Fixture	89.8	0.0	89.8
Total	Lumens	7844.3	0.0	7844.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.3	1.6
10°-20°	330.6	4.2
20°-30°	523.2	6.7
30°-40°	809.5	10.3
40°-50°	1229.5	15.7
50°-60°	1694.9	21.6
60°-70°	1790.6	22.8
70°-80°	1228.4	15.7
80°-90°	114.3	1.5
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°	7844.3	100.0
0°-180°	7844.3	100.0

Coefficient of Utilization



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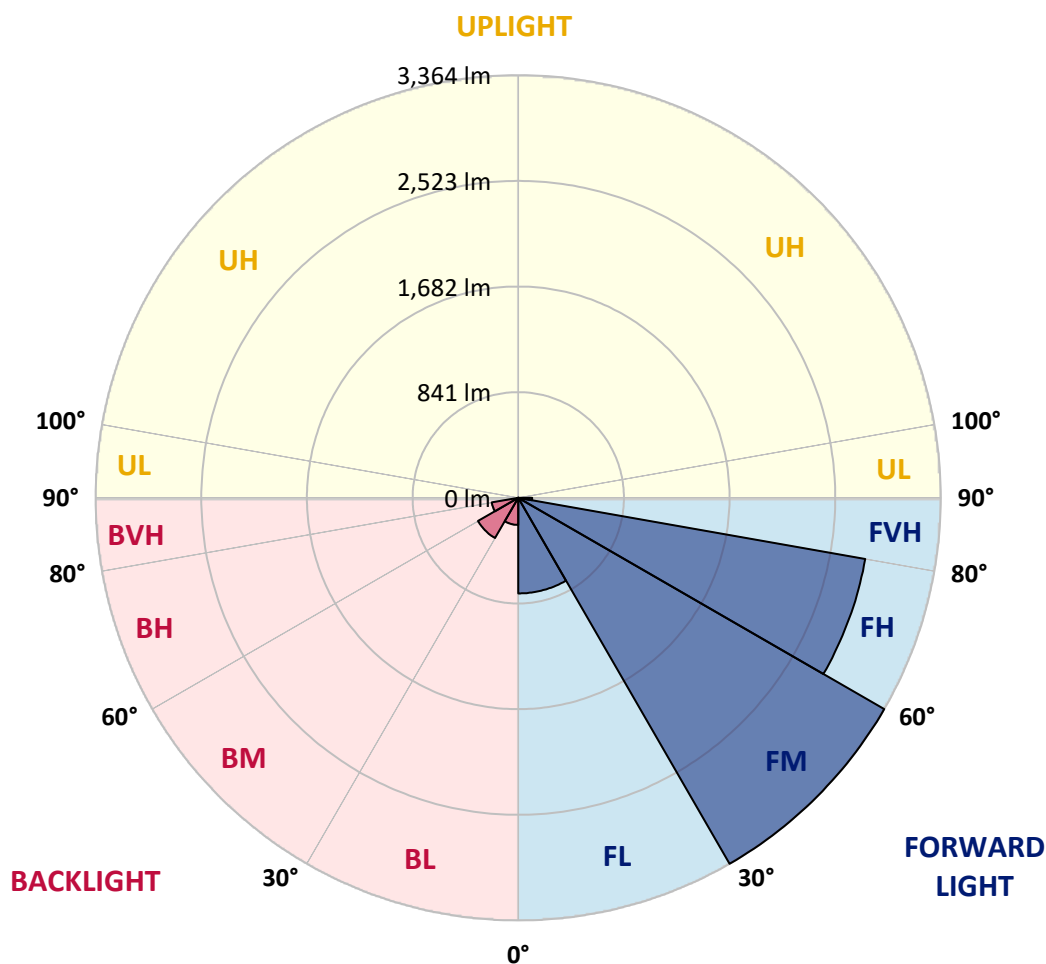
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	761.3	9.7			
FM	(30°-60°)	3364.3	42.9			
FH	(60°-80°)	2804.7	35.8			G2/5000
FVH	(80°-90°)	111.2	1.4			G2/225
BL	(0°-30°)	215.8	2.8	B1/500		
BM	(30°-60°)	369.6	4.7	B1/1000		
BH	(60°-80°)	214.3	2.7	B1/500		G1/500
BVH	(80°-90°)	3.1	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 II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	1355.6	1355.6	1355.6	1355.6	1355.6	1355.6	1355.6	1355.6	1355.6	1355.6	1355.6
2.5°	1575.9	1555.0	1559.1	1538.2	1528.6	1505.2	1480.7	1448.7	1413.1	1413.1	1378.4
5°	1741.8	1728.6	1728.6	1704.2	1685.3	1648.7	1604.9	1548.5	1481.2	1474.7	1409.0
7.5°	1843.6	1835.4	1840.5	1826.2	1811.0	1772.8	1720.9	1647.2	1552.0	1543.9	1445.1
10°	1863.3	1862.9	1877.2	1881.2	1891.4	1872.1	1825.7	1740.8	1621.7	1610.0	1476.2
12.5°	1786.6	1776.9	1812.0	1853.2	1911.2	1937.1	1913.3	1826.2	1685.3	1669.0	1505.2
15°	1660.4	1662.4	1696.0	1759.6	1856.3	1948.8	1979.9	1909.7	1749.9	1730.6	1532.7
17.5°	1588.1	1580.4	1609.5	1666.4	1773.4	1904.1	2010.9	1987.6	1818.7	1796.7	1560.7
20°	1579.4	1578.9	1585.6	1611.5	1692.9	1840.0	2007.4	2063.3	1899.5	1874.1	1600.8
22.5°	1639.5	1638.5	1632.9	1627.8	1650.1	1777.5	1992.1	2135.6	1996.2	1968.7	1657.8
25°	1731.6	1730.1	1721.4	1690.4	1668.5	1743.8	1977.8	2202.8	2110.7	2080.1	1727.0
27.5°	1844.1	1843.1	1827.3	1780.4	1723.9	1746.9	1970.8	2272.0	2243.0	2213.0	1806.9
30°	1981.9	1979.9	1947.4	1881.2	1807.4	1795.2	1980.4	2349.8	2380.9	2358.0	1899.0
32.5°	2155.0	2149.3	2106.6	2006.8	1903.6	1859.9	1998.7	2429.8	2544.3	2522.8	2022.1
35°	2288.8	2280.1	2255.2	2167.2	2015.0	1939.2	2041.5	2524.4	2740.6	2721.8	2179.4
37.5°	2403.8	2395.1	2374.8	2302.6	2174.8	2040.5	2110.2	2650.5	2972.7	2963.5	2371.2
40°	2528.0	2513.7	2504.1	2426.7	2311.2	2186.5	2208.4	2798.1	3239.8	3240.8	2601.8
42.5°	2623.6	2618.1	2619.1	2559.5	2443.0	2359.5	2338.6	2964.5	3559.9	3569.6	2879.0
45°	2705.5	2701.0	2719.7	2678.0	2575.8	2473.0	2491.3	3152.8	3910.0	3929.8	3189.5
47.5°	2768.6	2773.8	2800.7	2773.8	2713.7	2552.9	2626.7	3355.8	4277.8	4280.4	3510.0
50°	2831.8	2833.8	2878.5	2865.3	2840.9	2654.1	2751.3	3582.8	4665.6	4670.2	3809.7
52.5°	2851.5	2848.5	2919.7	2952.3	2953.3	2779.3	2912.6	3830.1	5045.8	5060.5	4118.1
55°	2749.8	2758.5	2873.5	3005.7	3058.2	2952.3	3130.5	4143.0	5450.7	5456.9	4423.4
57.5°	2252.1	2300.0	2554.4	2861.3	3125.8	3200.2	3443.4	4508.9	5918.3	5912.8	4732.7
60°	1366.7	1423.7	1728.0	2399.7	2905.1	3448.9	3904.4	5075.7	6429.3	6413.5	5045.8
62.5°	764.2	781.6	878.7	1436.4	2209.4	3290.8	4354.7	5803.9	7115.2	7061.7	5353.6
65°	563.3	568.9	591.8	703.8	1085.9	2531.0	4256.0	6674.5	8078.9	7983.8	5722.5
67.5°	489.5	495.1	517.5	532.8	484.9	1329.6	3506.4	7157.5	9302.7	9178.1	6221.6
70°	412.2	415.2	451.3	461.6	347.1	505.8	2252.6	7008.3	10435.4	10346.3	6757.5
72.5°	307.3	319.6	372.0	396.4	278.4	268.7	1060.5	6127.6	10627.3	10628.3	6721.3
75°	208.6	219.9	279.8	326.2	214.7	188.3	427.9	4575.6	9253.9	9253.9	5891.9
77.5°	142.5	151.6	194.9	255.9	162.9	129.3	221.8	2904.0	6638.9	6872.5	4199.5
80°	63.1	68.7	125.7	185.7	123.6	83.4	125.7	1590.2	4014.8	3965.4	1646.2
82.5°	31.1	35.7	80.4	116.0	79.8	51.4	66.1	756.1	1301.1	1236.5	257.0
85°	6.1	8.1	43.3	49.4	37.1	22.9	24.9	232.6	156.7	179.1	54.4
87.5°	0.0	0.0	13.2	9.1	4.1	5.1	5.1	20.9	12.2	14.2	14.2
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°	1355.6	1355.6	1355.6	1355.6	1355.6	1355.6	1355.6	1355.6	1355.6	1355.6	1355.6
2.5°	1360.2	1341.3	1300.1	1259.4	1217.7	1179.5	1153.0	1126.6	1110.3	1103.2	1104.2
5°	1370.8	1332.7	1246.2	1155.6	1066.0	978.5	912.9	851.3	832.0	799.9	802.0
7.5°	1387.6	1325.5	1189.2	1036.5	891.0	762.8	670.1	596.3	566.8	538.3	537.8
10°	1398.8	1312.3	1113.9	909.8	712.9	568.9	480.3	426.9	407.5	390.3	389.8
12.5°	1403.4	1287.9	1027.4	767.8	554.6	433.6	380.6	355.7	349.1	343.0	343.0
15°	1407.4	1263.9	930.7	631.0	438.1	362.8	341.9	333.8	329.2	325.1	325.1
17.5°	1411.0	1233.5	820.3	512.9	369.9	334.4	324.1	315.5	311.9	307.3	307.3
20°	1423.2	1204.0	721.5	423.3	332.8	314.0	302.8	293.6	290.6	287.5	288.0
22.5°	1446.2	1180.0	625.9	362.8	310.4	293.0	278.8	268.7	266.6	264.6	263.1
25°	1473.6	1150.5	535.8	323.6	288.5	269.2	253.4	244.8	242.7	243.2	242.2
27.5°	1508.7	1118.0	458.5	298.7	269.2	246.8	229.0	222.3	223.3	225.4	224.4
30°	1547.4	1087.9	397.9	281.4	251.8	226.9	209.1	204.6	208.1	211.2	210.1
32.5°	1604.9	1061.5	355.7	267.6	236.6	210.6	196.4	190.9	194.9	199.0	197.9
35°	1683.3	1048.3	331.8	255.9	223.3	197.9	183.7	179.6	183.7	184.7	184.2
37.5°	1779.4	1047.2	321.5	246.3	211.2	187.3	171.5	169.9	173.0	173.5	172.5
40°	1903.6	1053.8	314.0	239.1	198.4	175.1	160.3	158.8	159.8	163.4	162.9
42.5°	2060.9	1081.3	303.3	230.0	184.7	162.9	151.1	147.6	147.1	151.1	150.6
45°	2258.3	1141.8	289.0	215.2	172.5	152.6	140.9	136.8	135.4	136.3	137.9
47.5°	2473.5	1216.2	274.8	201.5	163.9	144.5	132.8	127.7	125.2	125.2	125.2
50°	2682.1	1300.1	265.1	187.3	157.7	136.8	124.1	119.1	115.0	114.0	113.5
52.5°	2888.8	1382.5	257.5	173.0	150.6	127.2	116.0	110.4	105.9	103.8	102.8
55°	3076.9	1460.9	244.3	159.3	141.4	117.1	107.8	102.3	96.7	93.1	91.6
57.5°	3257.7	1526.0	219.9	145.0	127.2	107.3	99.2	93.1	86.5	81.9	79.8
60°	3422.0	1559.6	189.3	129.8	113.0	97.2	89.6	83.9	75.3	67.6	65.6
62.5°	3547.2	1546.4	156.2	112.4	98.2	88.0	78.4	72.8	62.6	53.4	49.9
65°	3675.4	1474.2	124.6	94.1	86.0	75.8	65.6	60.1	48.4	38.6	36.1
67.5°	3841.8	1320.0	98.2	78.4	74.3	60.1	51.4	47.9	39.7	30.5	28.5
70°	3948.6	1025.3	76.4	63.7	61.1	43.8	39.7	39.2	31.6	23.4	20.9
72.5°	3655.6	672.2	58.5	48.4	43.8	28.5	30.5	30.5	22.9	15.8	13.7
75°	3051.5	393.3	42.2	34.6	24.9	18.3	20.9	20.9	14.2	7.6	6.1
77.5°	2179.4	209.6	28.0	21.4	12.7	8.1	11.2	10.7	4.6	0.5	0.0
80°	833.5	72.3	13.2	8.6	3.6	1.5	1.0	0.5	0.5	0.0	0.0
82.5°	127.2	18.9	2.6	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	22.9	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	5.1	0.0	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)