

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: P883658

Luminaire Tested: **NAV-SB4A-835-U-T3-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883658
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-6)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4A-835-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12030 lumens
Efficiency: N/A
Efficacy: 105.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

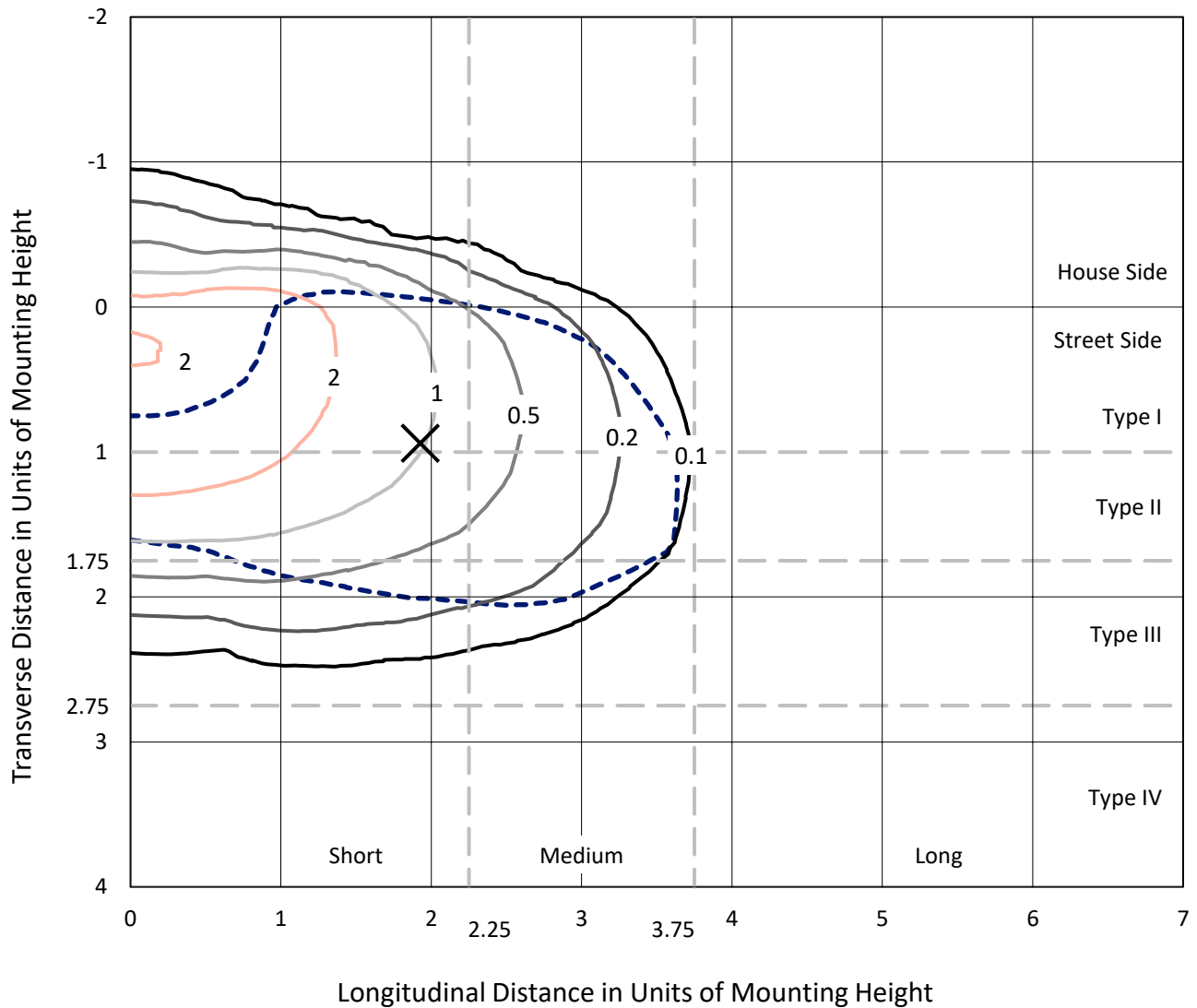
Input Watts (W): 114
Input Voltage (V): 120.0
Input Current (Ain): 0.952
Voltage Rise (V): NR
Power Factor: 0.995
Total Harmonic Distortion (THDi): 8.206
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

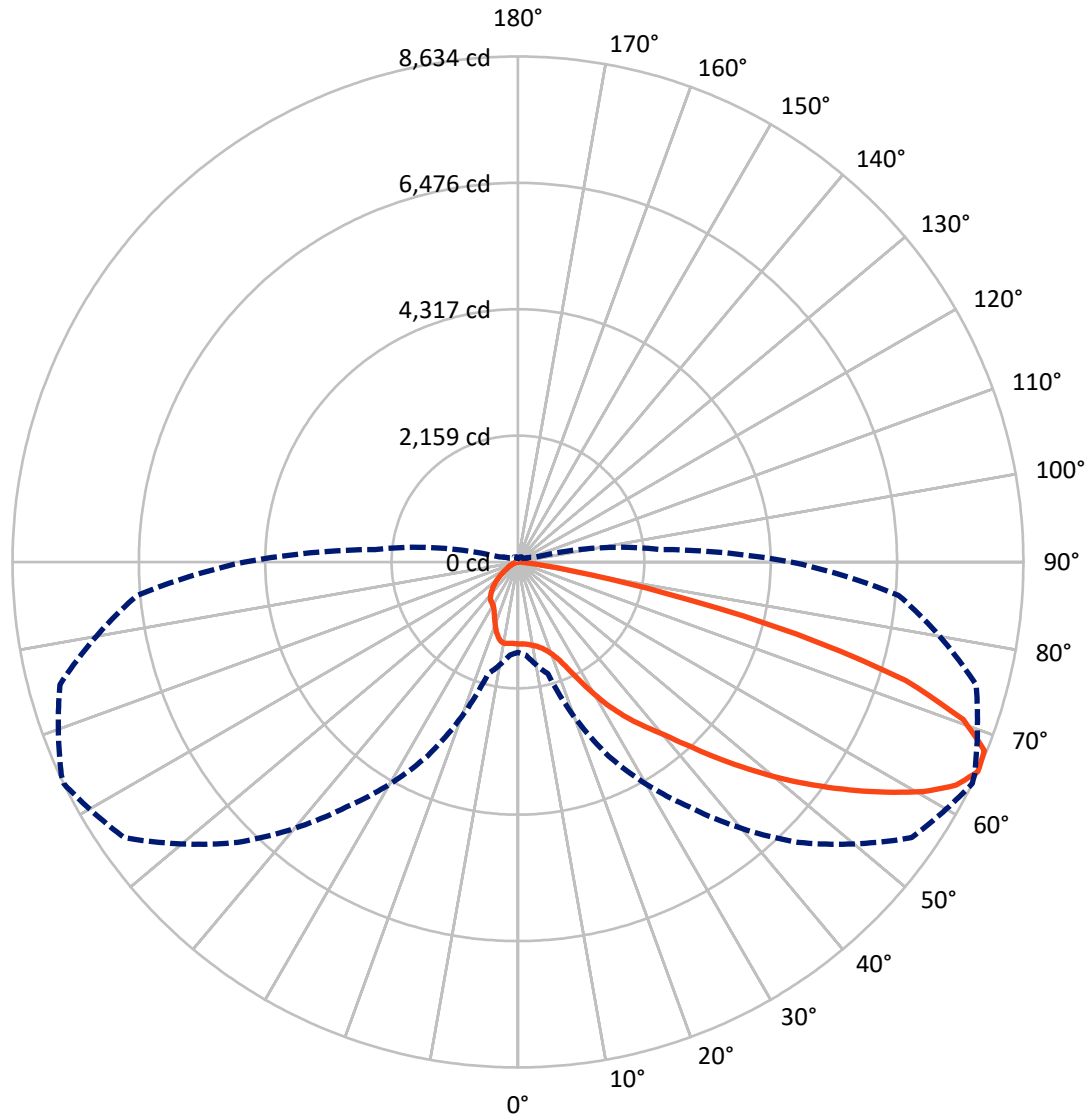
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.5 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 64-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1608.8	0.0	1608.8
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	10421.2	0.0	10421.2
	% Fixture	86.6	0.0	86.6
Total	Lumens	12030.0	0.0	12030.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.1	1.1
10°-20°	350.1	2.9
20°-30°	663.5	5.5
30°-40°	1342.6	11.2
40°-50°	2287.1	19.0
50°-60°	3110.2	25.9
60°-70°	2920.6	24.3
70°-80°	1170.1	9.7
80°-90°	56.7	0.5
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°	12030.0	100.0
0°-180°	12030.0	100.0

Coefficient of Utilization



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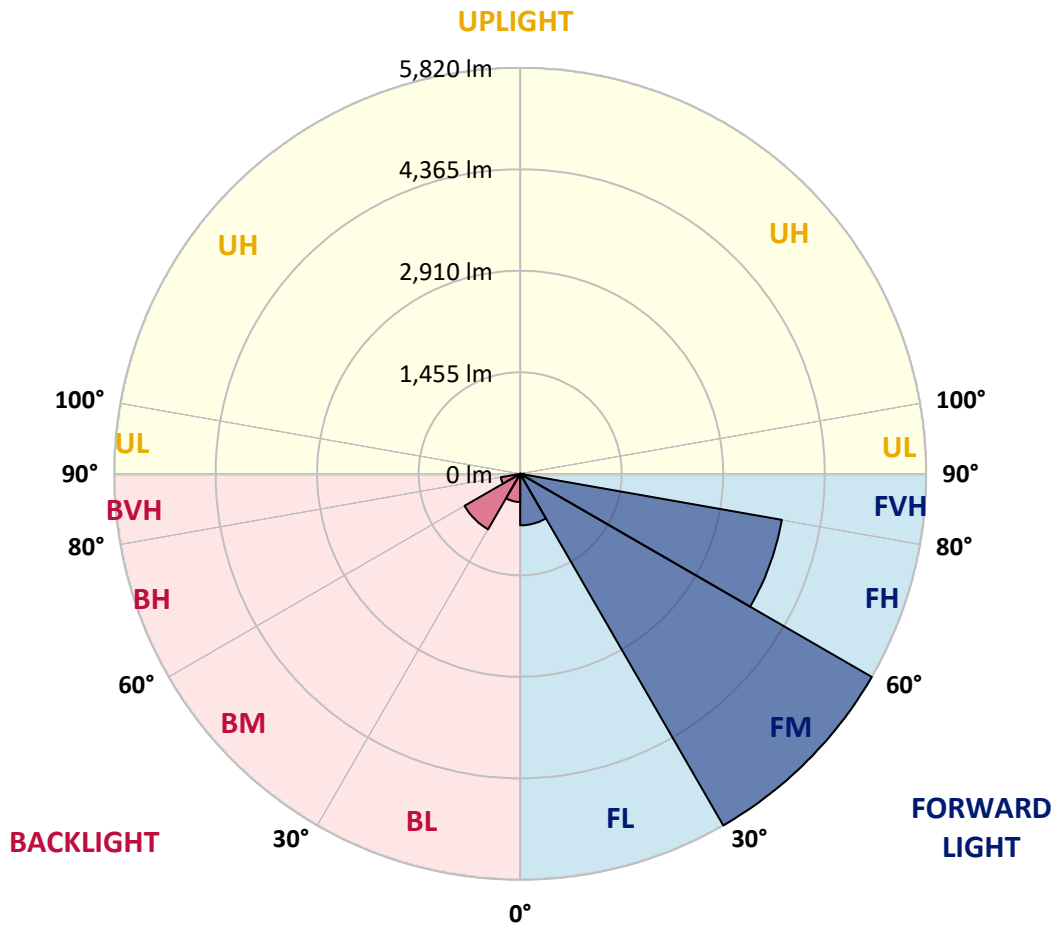
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	738.8	6.1			
FM (30°-60°)	5820.1	48.4			
FH (60°-80°)	3808.4	31.7			G2/5000
FVH (80°-90°)	53.9	0.4			G1/100
BL (0°-30°)	403.9	3.4	B1/500		
BM (30°-60°)	919.7	7.6	B1/1000		
BH (60°-80°)	282.4	2.3	B1/500		G1/500
BVH (80°-90°)	2.8	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 III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	1399.2	1399.2	1399.2	1399.2	1399.2	1399.2	1399.2	1399.2	1399.2	1399.2	1399.2
2.5°	1394.4	1404.1	1401.6	1399.2	1398.4	1400.0	1400.8	1400.0	1400.0	1400.0	1400.8
5°	1367.8	1375.8	1375.8	1381.5	1389.5	1399.2	1406.5	1408.1	1409.7	1412.1	1411.3
7.5°	1317.0	1323.4	1328.2	1346.8	1367.0	1392.8	1414.5	1425.8	1427.4	1436.3	1439.5
10°	1282.3	1290.3	1298.4	1317.8	1346.8	1385.5	1422.6	1450.0	1454.1	1475.0	1484.7
12.5°	1280.7	1288.7	1299.2	1320.2	1354.1	1395.2	1440.3	1479.9	1487.1	1517.8	1537.9
15°	1297.6	1307.3	1317.0	1342.8	1379.1	1429.1	1477.4	1526.6	1533.9	1577.4	1599.2
17.5°	1332.3	1345.2	1352.4	1378.2	1417.0	1472.6	1536.3	1592.8	1599.2	1650.0	1677.4
20°	1400.8	1416.1	1418.6	1439.5	1477.4	1537.1	1612.9	1683.1	1691.2	1749.2	1779.9
22.5°	1542.8	1564.5	1545.2	1555.7	1589.5	1649.2	1731.5	1820.2	1831.5	1897.6	1925.0
25°	1792.8	1823.4	1773.4	1755.7	1770.2	1832.3	1935.5	2047.6	2060.5	2113.7	2127.5
27.5°	2283.9	2244.4	2168.6	2094.4	2050.8	2086.3	2202.5	2341.2	2357.3	2408.9	2392.8
30°	2823.4	2788.8	2686.3	2521.8	2418.6	2412.9	2520.2	2675.0	2693.6	2742.8	2693.6
32.5°	3363.8	3330.7	3219.4	3017.0	2837.9	2749.2	2823.4	2995.2	3004.9	3036.3	2963.8
35°	3895.2	3861.3	3750.1	3542.8	3322.6	3121.0	3106.5	3300.0	3303.3	3336.3	3228.3
37.5°	4429.9	4401.7	4283.1	4079.9	3863.0	3584.7	3450.1	3588.8	3592.8	3625.1	3513.0
40°	4811.4	4823.5	4742.0	4584.7	4398.5	4094.4	3835.5	3896.0	3871.8	3925.9	3858.9
42.5°	5138.8	5163.0	5092.0	5013.0	4904.9	4637.2	4313.0	4302.5	4263.8	4292.8	4223.4
45°	5421.9	5442.0	5378.3	5359.8	5357.3	5169.4	4834.7	4771.8	4717.8	4712.2	4629.1
47.5°	5525.9	5564.6	5592.0	5654.1	5775.1	5696.1	5374.3	5276.7	5216.2	5171.8	5040.4
50°	5565.4	5606.5	5700.1	5880.7	6167.0	6200.9	5911.4	5801.7	5727.5	5646.9	5453.3
52.5°	5512.2	5585.6	5711.4	6015.4	6430.7	6605.7	6426.7	6330.7	6246.1	6114.6	5827.5
55°	5198.5	5271.9	5529.1	6013.8	6562.2	6889.6	6913.8	6871.1	6775.9	6568.6	6129.9
57.5°	4537.2	4646.0	5053.3	5809.0	6559.8	7134.0	7391.2	7421.9	7315.4	7018.7	6367.8
60°	3621.0	3768.6	4265.4	5354.9	6357.4	7266.2	7809.8	7963.0	7850.1	7462.2	6560.6
62.5°	2526.6	2697.6	3167.8	4643.6	5894.4	7171.1	8115.4	8398.5	8313.0	7859.0	6634.8
65°	1541.2	1596.0	1975.0	3654.1	5107.3	6772.7	8209.8	8634.0	8605.8	8101.7	6525.1
67.5°	1026.6	1072.6	1181.5	2505.7	3964.6	5976.7	7984.0	8592.9	8600.9	8062.2	6123.5
70°	618.6	658.1	729.0	1457.3	2569.4	4730.7	7284.8	8068.7	8115.4	7534.0	5362.2
72.5°	254.8	281.5	346.0	660.5	1330.7	3002.5	5800.9	6927.5	7036.4	6334.8	4115.4
75°	144.4	158.1	203.2	331.5	577.4	1399.2	3513.8	4917.8	5078.3	4366.2	2475.8
77.5°	96.0	102.4	131.5	214.5	325.0	477.4	1501.6	2562.1	2868.6	2384.7	1071.8
80°	64.5	70.2	90.3	143.6	211.3	204.8	478.2	949.2	1167.8	819.4	261.3
82.5°	43.5	44.4	64.5	94.4	133.9	99.2	141.1	295.2	371.0	237.1	99.2
85°	25.0	24.2	47.6	54.8	59.7	41.1	42.7	88.7	116.1	100.0	56.5
87.5°	3.2	4.8	18.5	14.5	8.1	8.9	8.9	15.3	22.6	24.2	12.1
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°	1399.2	1399.2	1399.2	1399.2	1399.2	1399.2	1399.2	1399.2	1399.2	1399.2	1399.2
2.5°	1400.8	1400.0	1397.6	1395.2	1389.5	1386.3	1387.9	1386.3	1385.5	1386.3	1389.5
5°	1411.3	1408.9	1402.4	1394.4	1383.1	1369.4	1360.5	1347.6	1335.5	1328.2	1329.9
7.5°	1439.5	1437.1	1428.2	1405.7	1369.4	1312.1	1259.7	1213.7	1179.0	1158.9	1159.7
10°	1484.7	1480.7	1467.0	1417.0	1321.8	1196.8	1092.8	1006.5	950.0	923.4	921.0
12.5°	1537.9	1533.1	1508.9	1406.5	1231.5	1036.3	892.8	796.8	744.4	721.0	718.6
15°	1600.8	1594.4	1546.8	1356.5	1100.0	858.9	727.4	655.7	621.8	600.8	601.6
17.5°	1679.1	1667.8	1575.0	1281.5	957.3	723.4	625.8	571.8	541.9	521.8	520.2
20°	1780.7	1762.1	1597.6	1192.0	825.8	637.9	557.3	512.1	489.5	471.8	468.6
22.5°	1922.6	1896.0	1625.0	1095.2	733.1	579.0	506.5	473.4	454.8	434.7	431.5
25°	2098.4	2067.0	1658.9	1005.7	669.4	528.2	469.4	441.9	420.2	396.8	394.4
27.5°	2344.4	2287.9	1699.2	932.3	614.5	484.7	435.5	404.8	379.8	360.5	356.5
30°	2618.6	2525.8	1734.7	887.9	564.5	444.4	391.1	360.5	337.1	323.4	321.0
32.5°	2878.3	2752.5	1758.1	868.6	519.4	398.4	342.7	309.7	291.9	287.9	290.3
35°	3123.4	2957.3	1755.7	850.0	479.0	352.4	295.2	261.3	247.6	250.0	250.0
37.5°	3405.7	3175.9	1738.7	821.0	446.0	310.5	254.0	224.2	212.1	212.9	216.1
40°	3733.9	3428.3	1728.3	766.1	409.7	271.8	220.2	196.0	187.1	183.9	183.1
42.5°	4083.9	3672.6	1729.9	704.0	364.5	237.1	196.8	176.6	168.6	166.1	165.3
45°	4435.5	3905.7	1732.3	639.5	316.9	210.5	179.8	162.9	158.1	154.8	154.8
47.5°	4766.2	4104.1	1687.1	570.2	270.2	190.3	166.1	154.8	150.8	146.8	146.8
50°	5074.3	4236.4	1578.2	489.5	233.1	174.2	155.6	147.6	143.6	139.5	139.5
52.5°	5313.8	4257.3	1398.4	406.5	207.3	162.1	149.2	141.9	137.1	133.1	132.3
55°	5420.2	4125.9	1142.8	329.0	187.1	151.6	142.7	135.5	129.8	125.8	125.0
57.5°	5392.8	3849.2	891.1	264.5	167.7	141.1	134.7	129.8	123.4	116.9	116.1
60°	5258.1	3479.1	671.8	220.2	150.0	129.8	125.8	121.8	112.9	103.2	101.6
62.5°	5025.1	3013.8	479.0	182.3	130.6	116.9	115.3	112.1	99.2	81.5	79.8
65°	4668.6	2448.4	322.6	151.6	112.1	102.4	103.2	97.6	80.6	60.5	58.9
67.5°	4147.6	1790.3	206.5	124.2	93.5	85.5	86.3	83.1	68.5	51.6	49.2
70°	3483.9	1185.5	134.7	94.4	75.0	66.1	71.0	71.8	58.1	41.9	40.3
72.5°	2554.1	700.0	94.4	70.2	54.8	46.0	58.1	59.7	46.8	31.5	29.8
75°	1455.7	332.3	71.0	50.8	33.9	32.3	45.2	45.2	32.3	21.0	19.4
77.5°	611.3	138.7	50.0	33.1	19.4	18.5	30.6	28.2	16.1	9.7	9.7
80°	176.6	62.1	26.6	16.1	8.1	7.3	12.1	8.9	4.0	1.6	1.6
82.5°	69.4	27.4	10.5	6.5	3.2	3.2	1.6	0.0	0.0	0.0	0.0
85°	41.1	11.3	4.8	2.4	0.8	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	10.5	2.4	1.6	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)