

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: P196891

Luminaire Tested: **NAV-AF-01-D-UNV-5MQ-8030-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196891
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24129)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-AF-01-D-UNV-5MQ-8030-1200
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 3000K, 1200mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE V MEDIUM OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5824 lumens
Efficiency: N/A
Efficacy: 86.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B3 - U0 - G1

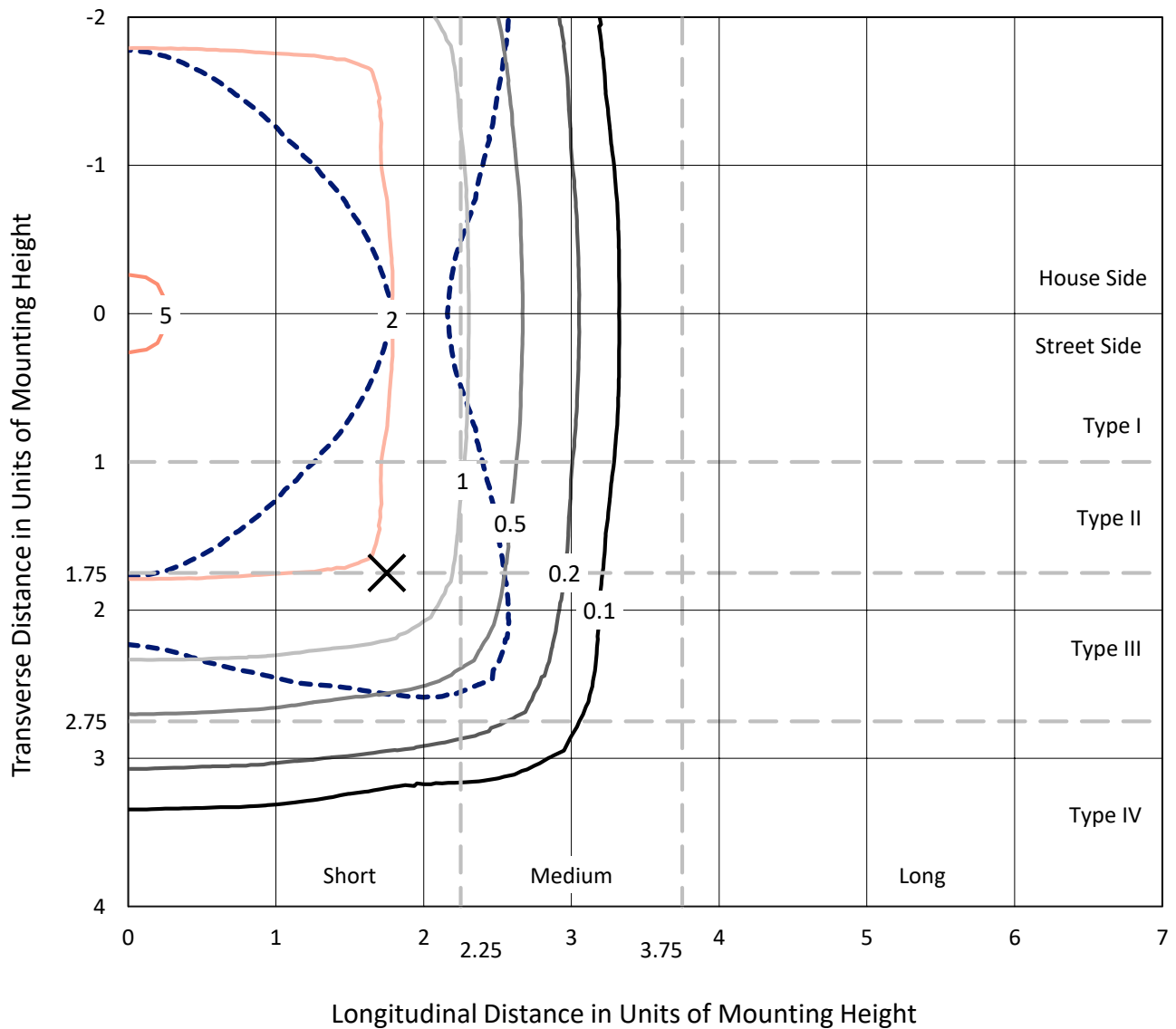
Input Watts (W): 67
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

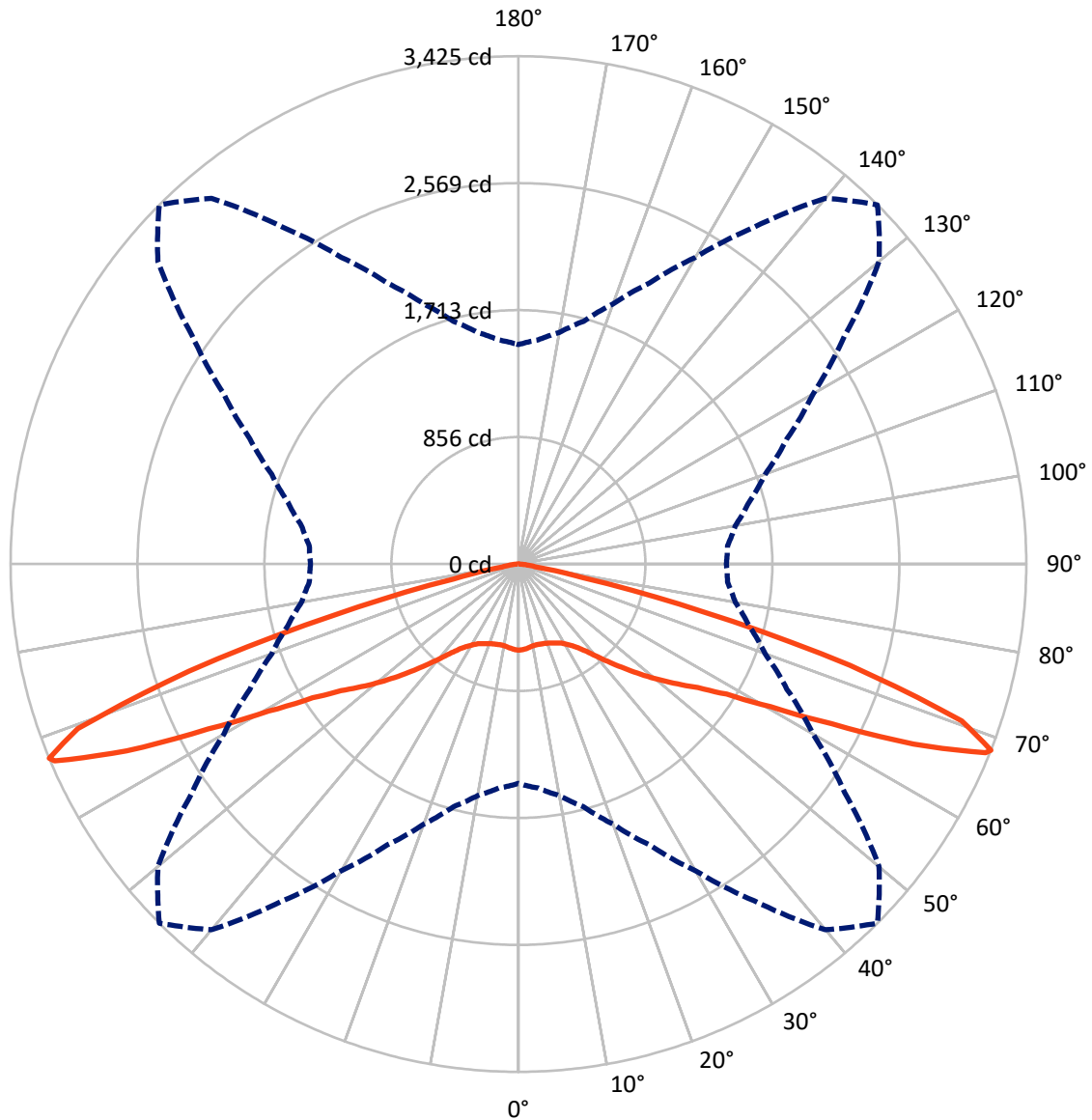
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.8 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2912.0	0.0	2912.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	2912.0	0.0	2912.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	5824.0	0.0	5824.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.4	0.9
10°-20°	157.7	2.7
20°-30°	268.0	4.6
30°-40°	438.6	7.5
40°-50°	783.9	13.5
50°-60°	1323.9	22.7
60°-70°	2052.9	35.2
70°-80°	705.8	12.1
80°-90°	38.8	0.7
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°	5824.0	100.0
0°-180°	5824.0	100.0



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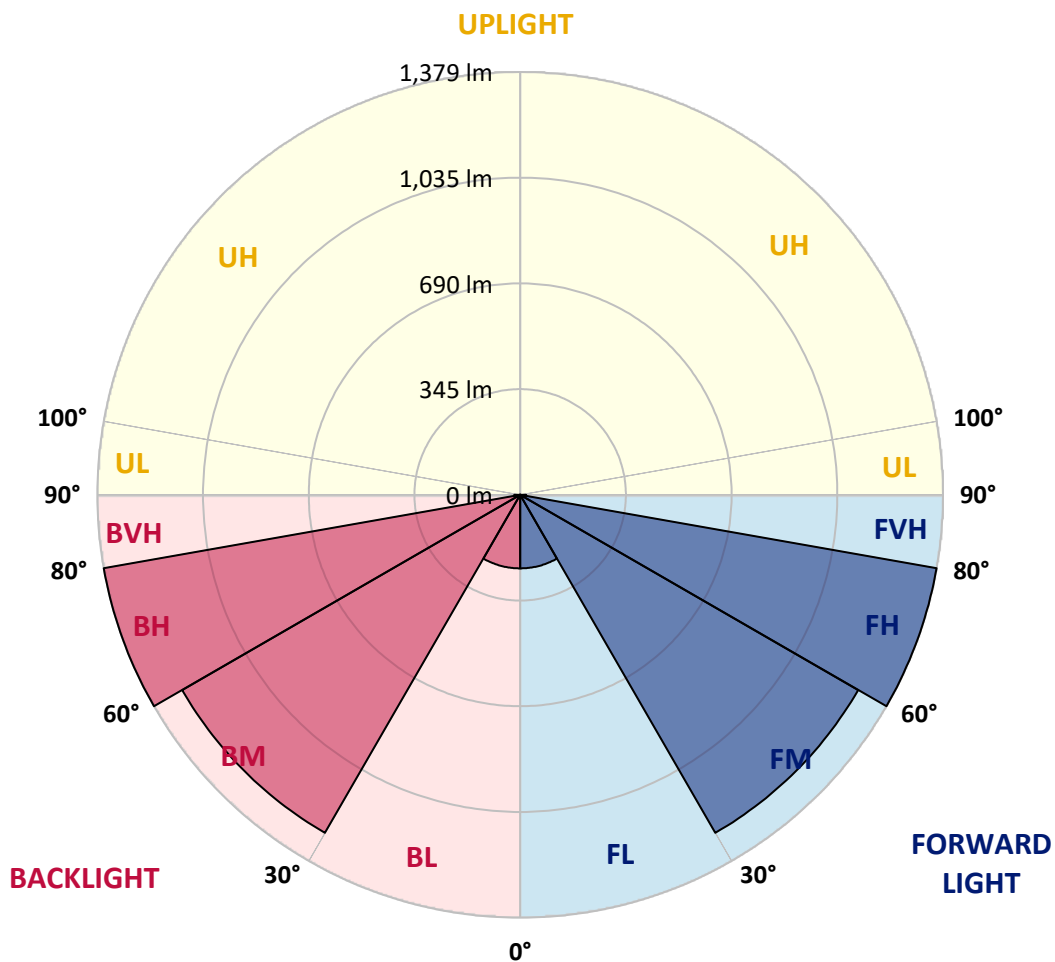
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	240.0	4.1			
FM	(30°-60°)	1273.2	21.9			
FH	(60°-80°)	1379.4	23.7			G1/1800
FVH	(80°-90°)	19.4	0.3			G1/100
BL	(0°-30°)	240.0	4.1	B1/500		
BM	(30°-60°)	1273.2	21.9	B2/2500		
BH	(60°-80°)	1379.4	23.7	B3/2500		G1/1800
BVH	(80°-90°)	19.4	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G1

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0
2.5°	583.5	583.5	584.2	583.8	582.7	581.7	580.6	579.5	578.8	578.1	577.4
5°	577.4	577.4	578.5	577.8	577.0	576.0	575.3	574.2	573.5	572.8	573.1
7.5°	569.5	570.3	571.0	570.6	569.2	568.8	567.8	567.4	566.7	565.6	566.0
10°	562.8	563.1	563.8	563.5	563.1	562.1	561.7	561.3	561.0	559.6	559.2
12.5°	556.0	556.7	557.4	557.8	557.4	557.8	558.1	558.5	558.1	557.4	557.4
15°	550.6	551.4	552.4	553.5	553.9	556.0	557.4	558.8	559.9	560.3	559.2
17.5°	547.8	548.9	550.3	552.4	554.2	556.7	559.2	561.3	563.1	563.5	562.4
20°	547.4	548.5	550.6	553.1	556.4	559.6	563.5	566.7	568.5	569.5	568.5
22.5°	549.9	551.4	554.2	557.4	561.3	565.6	570.6	574.2	577.8	579.2	578.1
25°	557.1	558.5	561.7	565.6	569.9	575.3	580.2	584.9	588.5	590.2	588.8
27.5°	572.0	572.4	576.0	580.2	585.2	589.9	596.3	598.4	601.3	603.1	601.3
30°	593.1	593.8	597.0	603.8	608.4	614.5	618.1	620.2	623.4	625.2	623.0
32.5°	625.2	625.9	628.8	635.2	639.4	644.1	648.4	649.8	653.0	655.1	652.6
35°	670.5	671.9	674.4	678.7	682.2	685.8	689.0	688.0	690.1	692.9	690.4
37.5°	732.5	732.2	732.9	736.1	739.7	741.8	746.8	744.3	746.4	748.9	747.5
40°	804.9	804.9	804.6	810.3	811.7	813.8	819.2	816.0	818.8	821.7	819.2
42.5°	887.3	888.7	890.5	895.2	899.1	899.8	902.3	900.9	904.4	906.9	904.4
45°	982.2	984.3	986.5	997.2	998.9	1000.4	1002.1	997.5	1001.4	1003.6	1002.9
47.5°	1080.6	1084.5	1089.2	1100.2	1107.4	1110.6	1112.0	1106.6	1107.0	1110.2	1110.6
50°	1191.9	1196.2	1200.8	1213.3	1220.1	1225.8	1227.5	1221.5	1222.2	1224.7	1225.4
52.5°	1294.6	1299.6	1309.6	1326.3	1336.0	1345.9	1346.7	1339.2	1342.4	1344.2	1342.7
55°	1391.2	1397.7	1410.9	1433.3	1450.8	1470.4	1479.3	1471.1	1471.1	1469.7	1469.0
57.5°	1503.9	1511.1	1524.6	1550.7	1574.9	1603.1	1627.3	1635.5	1650.5	1655.5	1647.7
60°	1673.7	1681.2	1695.1	1729.3	1760.0	1801.0	1841.0	1873.4	1926.2	1954.7	1929.0
62.5°	1828.8	1840.2	1873.1	1933.0	1999.3	2075.3	2163.4	2226.1	2322.1	2369.9	2305.3
65°	1793.5	1816.7	1880.9	1975.1	2112.0	2276.8	2456.2	2628.4	2826.7	2928.3	2797.1
67.5°	1566.7	1586.3	1655.5	1765.0	1935.8	2163.0	2441.9	2798.5	3207.6	3398.0	3165.9
68°	1480.0	1516.8	1585.6	1694.4	1866.6	2089.9	2387.7	2772.9	3219.4	3425.1	3174.4
70°	1134.8	1148.0	1214.0	1311.7	1497.5	1716.5	2017.1	2456.2	2960.8	3172.6	2914.8
72.5°	539.2	547.1	589.9	686.2	804.2	982.5	1247.9	1661.9	2116.6	2337.0	2079.9
75°	197.6	199.4	209.3	232.2	276.4	343.4	470.8	728.3	1078.1	1285.7	1082.4
77.5°	106.6	107.0	110.9	116.6	124.5	133.4	152.6	204.7	330.2	449.4	348.8
80°	67.0	66.7	70.6	75.3	80.6	84.9	86.7	92.7	104.5	122.3	112.3
82.5°	34.2	37.4	46.4	51.4	59.2	60.6	58.8	58.5	62.1	67.0	69.2
85°	18.9	16.8	24.6	32.8	35.7	36.7	37.1	35.0	34.2	33.5	35.3
87.5°	9.6	8.9	10.7	16.4	17.5	14.3	14.6	12.5	8.6	8.6	8.9
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):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0
2.5°	576.7	577.0	576.3	576.3	576.3	576.7	576.3	576.0
5°	572.0	572.8	572.8	573.1	573.5	573.5	573.5	573.5
7.5°	565.3	565.6	566.3	566.3	566.3	566.3	566.3	566.3
10°	558.8	558.1	557.8	557.1	557.1	556.0	556.4	556.7
12.5°	555.6	554.2	553.5	552.4	551.7	550.6	550.6	551.0
15°	557.1	554.9	552.8	552.1	551.4	550.6	549.9	550.3
17.5°	559.9	557.4	554.9	553.5	552.1	551.0	550.6	551.0
20°	566.0	562.4	558.5	556.0	553.1	552.4	551.4	552.4
22.5°	574.2	569.9	564.9	560.3	557.1	555.6	554.2	555.3
25°	584.2	579.5	574.5	569.2	565.6	564.6	562.8	562.8
27.5°	598.1	594.2	589.9	584.9	581.3	580.2	577.4	577.4
30°	620.2	616.3	612.3	608.1	604.5	603.4	599.9	599.9
32.5°	649.4	645.2	642.7	639.1	636.2	634.5	630.2	629.8
35°	688.7	684.7	684.4	681.9	679.0	679.4	675.1	674.4
37.5°	745.0	741.8	742.9	740.7	738.2	740.4	737.9	737.9
40°	817.1	816.0	817.1	815.6	816.0	816.3	814.2	814.9
42.5°	904.1	901.2	907.6	906.9	905.9	908.7	903.7	900.2
45°	1004.3	1003.2	1009.6	1010.7	1008.6	1010.4	1001.4	1001.1
47.5°	1113.1	1113.1	1118.8	1118.1	1115.9	1116.3	1105.6	1098.8
50°	1226.5	1225.8	1231.5	1230.0	1227.2	1226.8	1215.8	1209.0
52.5°	1344.5	1344.5	1352.7	1348.8	1342.0	1338.8	1325.3	1316.3
55°	1475.0	1473.3	1475.8	1462.9	1449.7	1440.1	1423.3	1416.6
57.5°	1640.2	1619.5	1601.7	1585.3	1566.7	1555.3	1535.7	1528.5
60°	1874.5	1819.2	1795.3	1762.5	1731.8	1716.5	1690.5	1676.5
62.5°	2199.0	2107.4	2042.5	1970.1	1900.2	1850.9	1811.4	1793.9
65°	2574.2	2374.5	2209.4	2054.2	1922.6	1818.1	1760.0	1741.8
67.5°	2716.9	2350.2	2065.3	1842.7	1683.0	1558.5	1489.0	1474.3
68°	2686.5	2294.6	1998.6	1770.7	1610.2	1484.7	1415.5	1402.3
70°	2369.9	1935.8	1623.4	1396.6	1246.8	1127.3	1078.5	1057.4
72.5°	1615.6	1243.2	953.6	762.8	650.9	575.3	530.3	515.0
75°	743.6	502.5	335.6	250.7	212.9	194.7	180.8	177.2
77.5°	216.8	157.6	135.5	125.5	118.0	111.6	107.0	106.6
80°	103.1	96.6	93.8	87.4	80.6	74.5	70.3	71.0
82.5°	69.2	67.4	67.4	61.0	50.3	43.2	35.7	32.1
85°	36.7	38.2	40.3	38.2	33.2	24.6	16.0	17.5
87.5°	12.5	14.3	15.0	14.6	13.2	10.0	7.5	7.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)