

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: P270344

Luminaire Tested: **NAV-AF-02-D-UNV-RW-7027-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270344
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24161)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-AF-02-D-UNV-RW-7027-1200
Description: NAVION ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11863.2 lumens
Efficiency: N/A
Efficacy: 92.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B3 - U0 - G3

Input Watts (W): 129
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

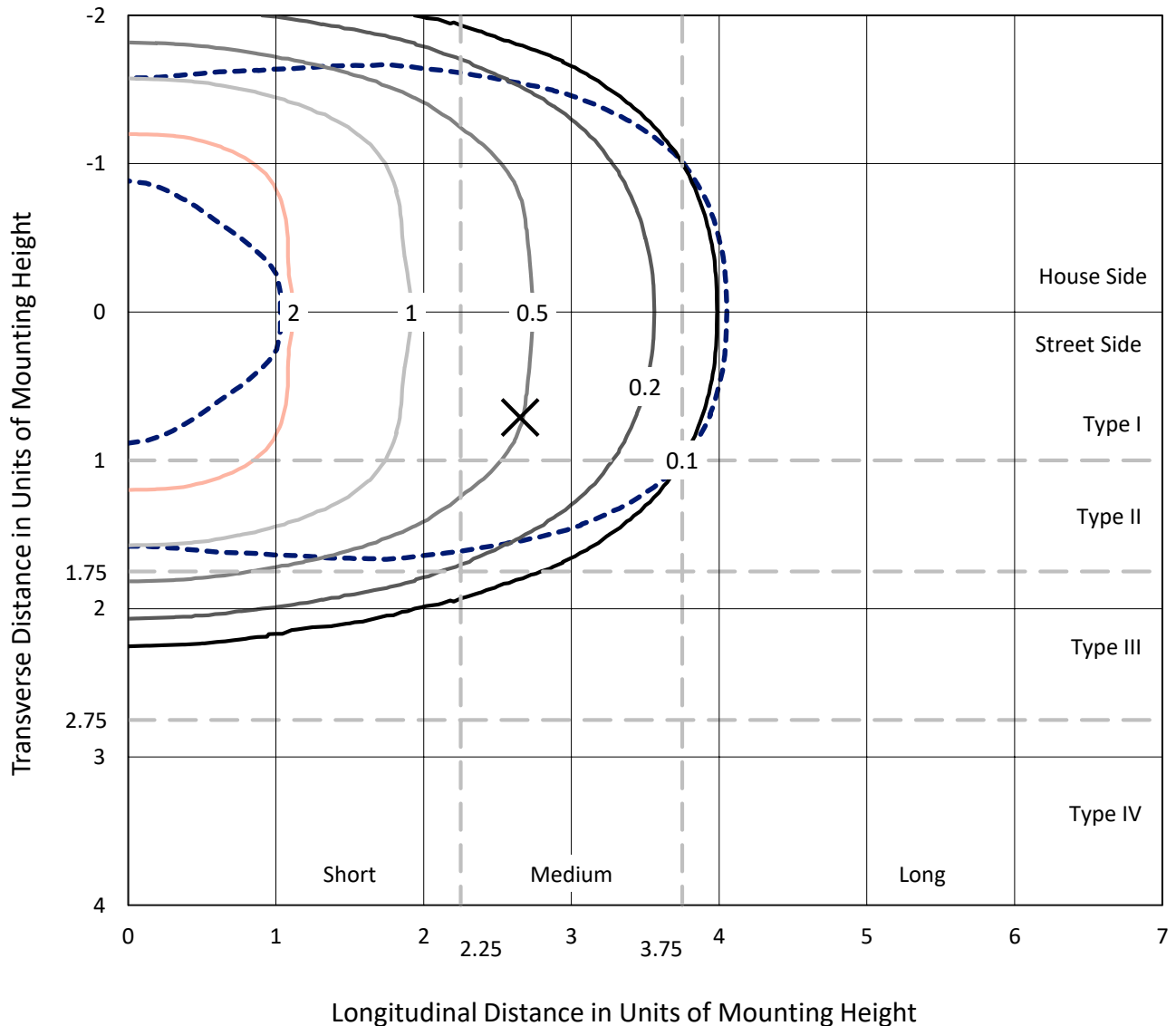


REPORT NUMBER: P270344

CATALOG NUMBER: NAV-AF-02-D-UNV-RW-7027-1200

Iso-Footcandle Lines of Horizontal Illumination

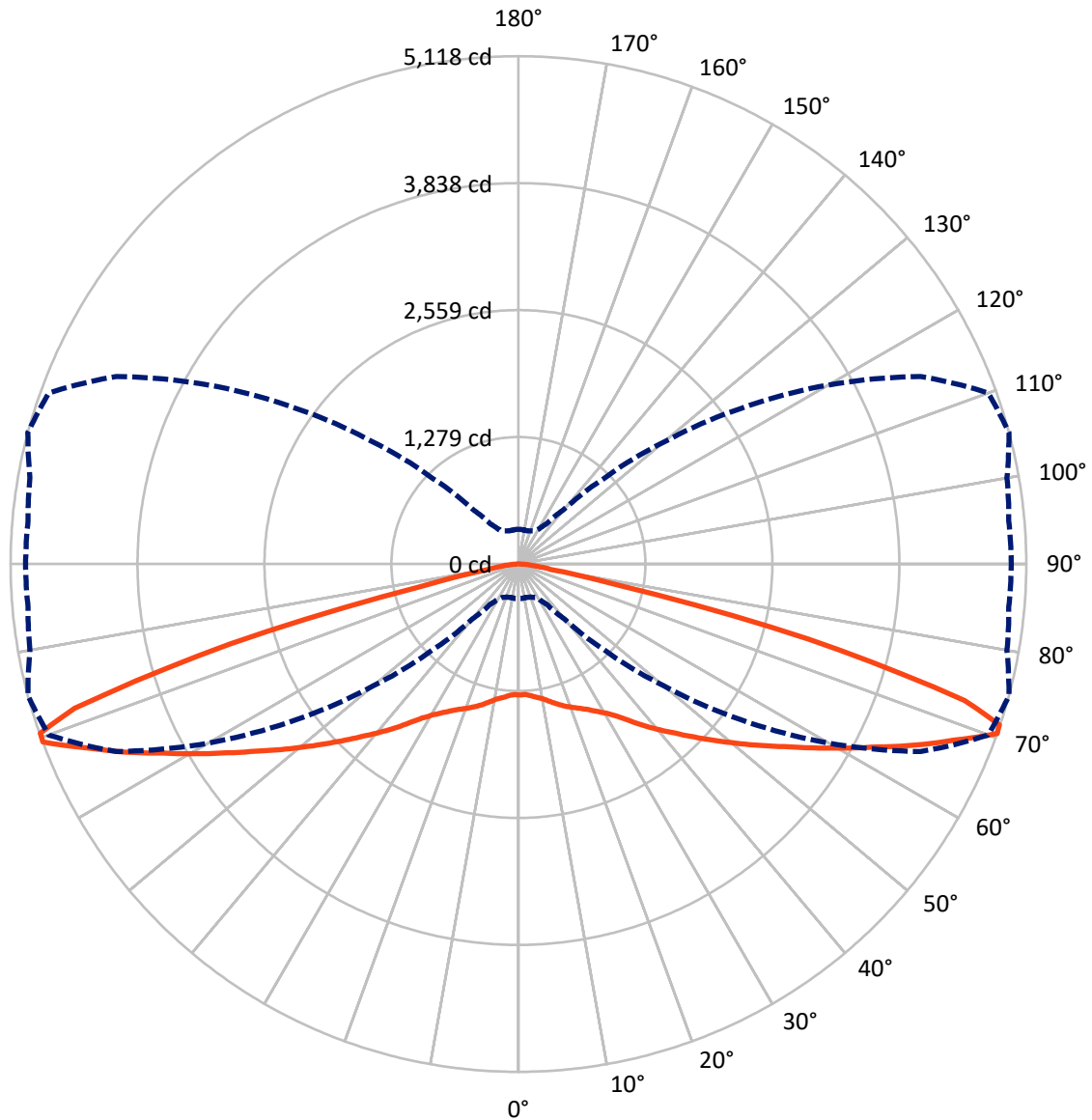
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 3.3 fc
 Type II - Medium - Full Cutoff

REPORT NUMBER: P270344
CATALOG NUMBER: NAV-AF-02-D-UNV-RW-7027-1200

Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

REPORT NUMBER: P270344

CATALOG NUMBER: NAV-AF-02-D-UNV-RW-7027-1200

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5931.6	0.0	5931.6
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	5931.6	0.0	5931.6
	% Fixture	50.0	0.0	50.0
Total	Lumens	11863.2	0.0	11863.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	126.7	1.1
10°-20°	393.0	3.3
20°-30°	738.1	6.2
30°-40°	1300.2	11.0
40°-50°	2154.8	18.2
50°-60°	2997.7	25.3
60°-70°	2829.8	23.9
70°-80°	1208.6	10.2
80°-90°	114.2	1.0
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°	11863.2	100.0
0°-180°	11863.2	100.0



REPORT NUMBER: P270344

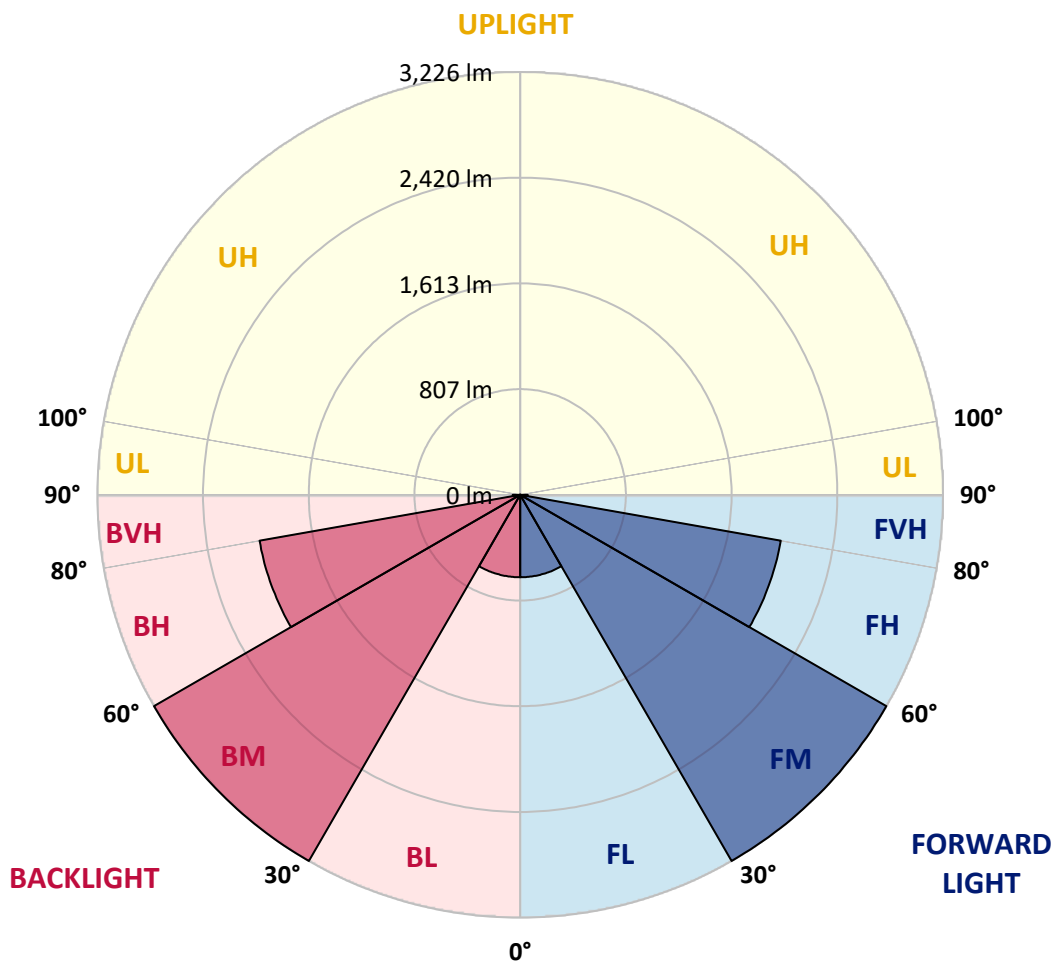
CATALOG NUMBER: NAV-AF-02-D-UNV-RW-7027-1200

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	628.9	5.3			
FM	(30°-60°)	3226.3	27.2			
FH	(60°-80°)	2019.2	17.0			G2/5000
FVH	(80°-90°)	57.1	0.5			G1/100
BL	(0°-30°)	628.9	5.3	B2/1000		
BM	(30°-60°)	3226.3	27.2	B3/5000		
BH	(60°-80°)	2019.2	17.0	B3/2500		G3/2500
BVH	(80°-90°)	57.1	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Medium





REPORT NUMBER: P270344

CATALOG NUMBER: NAV-AF-02-D-UNV-RW-7027-1200

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1321.0	1321.0	1321.0	1321.0	1321.0	1321.0	1321.0	1321.0	1321.0	1321.0	1321.0
2.5°	1329.2	1328.6	1329.2	1327.1	1327.8	1327.1	1327.1	1324.0	1324.0	1322.6	1320.2
5°	1314.4	1315.8	1315.8	1315.8	1318.2	1318.2	1321.0	1321.9	1324.0	1326.3	1327.8
7.5°	1289.8	1290.5	1292.8	1294.3	1298.8	1304.7	1310.6	1317.4	1323.4	1330.7	1339.0
10°	1269.0	1270.6	1274.2	1278.0	1286.2	1293.6	1304.0	1314.4	1324.8	1337.4	1350.1
12.5°	1257.8	1260.1	1266.2	1272.0	1284.7	1294.3	1308.4	1324.8	1339.0	1350.8	1365.0
15°	1259.3	1260.1	1268.2	1276.5	1294.3	1307.8	1327.8	1347.1	1364.2	1377.6	1393.9
17.5°	1281.0	1282.4	1290.5	1302.5	1319.6	1336.7	1358.2	1378.3	1401.4	1416.9	1436.3
20°	1323.4	1325.5	1334.4	1347.1	1365.8	1383.5	1405.8	1426.7	1450.5	1469.0	1488.3
22.5°	1378.3	1382.0	1391.7	1407.4	1425.9	1447.4	1470.5	1492.1	1514.4	1533.0	1549.2
25°	1451.9	1456.4	1466.8	1482.5	1501.0	1524.1	1547.8	1570.1	1593.1	1607.2	1620.7
27.5°	1550.8	1558.2	1569.3	1582.1	1598.4	1622.9	1645.2	1663.8	1686.1	1701.7	1710.6
30°	1683.9	1694.3	1703.1	1716.7	1728.5	1754.5	1772.4	1787.2	1804.3	1813.1	1815.5
32.5°	1846.6	1856.3	1865.3	1874.9	1891.3	1915.0	1932.2	1940.3	1949.3	1947.7	1939.6
35°	2030.3	2037.7	2042.9	2060.1	2086.9	2102.5	2115.1	2118.1	2119.6	2103.9	2088.3
37.5°	2223.7	2232.6	2237.0	2263.8	2289.1	2306.8	2312.9	2319.6	2315.0	2289.1	2260.8
40°	2432.5	2442.2	2455.5	2478.7	2508.3	2525.4	2533.0	2532.1	2528.4	2497.9	2451.8
42.5°	2637.8	2649.6	2660.7	2700.8	2725.4	2754.5	2758.2	2757.3	2749.3	2714.3	2660.7
45°	2811.7	2825.8	2848.9	2893.4	2932.8	2967.8	2982.0	2987.1	2978.9	2941.8	2880.9
47.5°	2955.2	2964.8	2993.8	3048.0	3098.7	3149.9	3178.2	3198.2	3197.4	3170.7	3106.1
50°	3053.2	3064.4	3100.1	3161.0	3224.2	3284.6	3340.3	3385.6	3407.1	3387.8	3327.6
52.5°	3081.5	3095.6	3142.5	3215.4	3289.0	3370.0	3453.3	3533.6	3581.8	3593.8	3546.9
55°	2962.6	2978.2	3046.6	3147.8	3268.8	3388.5	3515.0	3629.4	3729.0	3775.1	3756.5
57.5°	2616.1	2627.4	2714.3	2845.1	3018.3	3228.7	3441.3	3651.0	3822.0	3941.7	3962.6
60°	2068.9	2083.1	2178.3	2316.5	2513.5	2779.6	3077.1	3420.6	3755.9	4030.2	4166.2
62.5°	1396.1	1405.8	1497.2	1623.6	1839.3	2095.7	2427.3	2862.2	3340.3	3830.2	4213.8
65°	733.0	733.0	794.7	883.3	1054.9	1284.7	1624.3	2070.5	2639.2	3251.1	3892.6
67.5°	425.3	424.4	438.6	458.8	512.9	605.8	793.3	1121.1	1659.3	2371.5	3101.6
70°	350.9	348.6	346.4	346.4	354.7	368.8	404.4	494.3	723.3	1223.0	1908.4
71°	335.2	333.8	327.8	325.6	329.4	336.8	352.3	394.0	513.7	834.2	1425.2
72.5°	316.7	313.0	304.0	300.4	301.1	304.0	308.5	324.8	361.3	474.3	812.5
75°	288.4	279.6	268.4	263.2	261.0	260.1	260.1	264.7	272.8	286.2	333.0
77.5°	255.7	243.1	231.3	226.1	222.3	220.1	218.6	215.7	214.1	220.1	237.2
80°	216.3	202.9	193.2	190.4	188.0	183.7	177.7	171.8	168.1	170.9	181.4
82.5°	167.3	153.9	155.3	156.1	152.4	144.9	139.0	132.3	125.7	124.1	129.4
85°	133.0	126.4	121.9	131.6	123.3	114.4	106.3	95.2	79.5	65.4	71.3
87.5°	57.2	58.0	83.3	125.7	110.0	88.5	73.7	59.5	37.9	28.2	28.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P270344

CATALOG NUMBER: NAV-AF-02-D-UNV-RW-7027-1200

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1321.0	1321.0	1321.0	1321.0	1321.0	1321.0	1321.0	1321.0
2.5°	1319.6	1319.6	1317.4	1315.8	1315.8	1315.8	1314.4	1315.1
5°	1328.6	1330.0	1331.5	1330.7	1332.9	1335.2	1334.4	1333.8
7.5°	1343.3	1347.8	1352.3	1354.6	1357.5	1360.6	1361.2	1359.0
10°	1358.2	1367.2	1373.9	1379.7	1383.5	1386.5	1388.7	1388.1
12.5°	1376.8	1389.5	1401.4	1413.3	1421.5	1425.9	1430.5	1428.8
15°	1407.4	1421.5	1436.3	1451.9	1464.5	1471.2	1477.9	1476.5
17.5°	1449.0	1461.6	1473.5	1489.1	1504.8	1512.1	1519.6	1518.9
20°	1501.0	1510.7	1517.3	1526.3	1541.1	1549.2	1556.0	1553.8
22.5°	1560.4	1563.4	1564.2	1567.2	1579.0	1588.7	1597.6	1599.9
25°	1625.2	1622.9	1618.4	1616.2	1624.3	1634.8	1646.0	1648.8
27.5°	1705.4	1697.9	1686.8	1677.9	1680.2	1693.6	1706.2	1709.1
30°	1806.5	1789.5	1765.7	1748.6	1745.5	1759.7	1773.1	1777.6
32.5°	1921.7	1898.7	1866.0	1840.0	1828.9	1841.4	1853.4	1860.1
35°	2058.6	2033.4	1993.9	1960.5	1942.6	1950.8	1971.6	1979.1
37.5°	2220.6	2185.7	2141.7	2099.5	2069.8	2071.2	2093.5	2102.5
40°	2399.8	2349.2	2293.6	2240.7	2197.6	2194.6	2214.7	2221.4
42.5°	2586.4	2521.7	2456.2	2387.2	2333.6	2323.9	2350.0	2350.8
45°	2787.1	2703.9	2622.8	2542.6	2486.8	2469.7	2495.0	2497.9
47.5°	3001.2	2897.2	2801.3	2714.3	2654.0	2627.4	2651.8	2656.3
50°	3224.2	3116.5	3005.0	2908.4	2837.7	2805.0	2834.0	2836.9
52.5°	3445.1	3343.2	3232.5	3121.7	3036.2	2999.0	3033.1	3043.5
55°	3667.3	3569.2	3465.1	3354.5	3246.6	3213.9	3251.1	3262.1
57.5°	3898.6	3804.1	3709.7	3598.3	3493.4	3443.7	3483.7	3499.3
60°	4153.6	4070.3	3981.1	3868.8	3765.4	3707.5	3741.7	3759.5
62.5°	4404.1	4387.1	4305.9	4189.2	4058.5	4000.4	4029.3	4042.1
65°	4425.0	4702.2	4698.4	4582.6	4399.5	4302.3	4310.3	4316.4
67.5°	3862.2	4498.5	4905.1	4941.5	4737.9	4585.5	4567.6	4571.4
70°	2734.4	3608.0	4471.0	5037.4	5117.9	4999.5	4960.9	4966.9
71°	2190.8	3095.6	4045.7	4807.8	5111.9	5077.6	5056.1	5071.7
72.5°	1398.4	2280.8	3205.7	4117.1	4700.7	4867.9	4892.4	4902.2
75°	507.7	981.3	1660.8	2379.7	3016.1	3454.1	3694.9	3714.2
77.5°	272.8	351.6	543.5	811.8	1019.9	1131.5	1144.9	1150.1
80°	200.7	232.8	266.2	304.0	327.8	332.4	324.2	307.0
82.5°	142.0	160.5	173.9	187.3	197.0	188.9	156.8	119.7
85°	82.6	90.6	98.2	104.8	106.3	100.4	66.1	54.3
87.5°	32.7	35.8	34.9	39.3	37.9	34.9	26.1	22.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)