

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: P196515

Luminaire Tested: **NAV-AF-03-D-UNV-RW-7030-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196515
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-03-D-UNV-RW-7030-600
Description: NAVION ROADWAY AND AREA LUMINAIRE
(3) 70 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11795.6 lumens
Efficiency: N/A
Efficacy: 122.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B3 - U0 - G3

Input Watts (W): 96
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

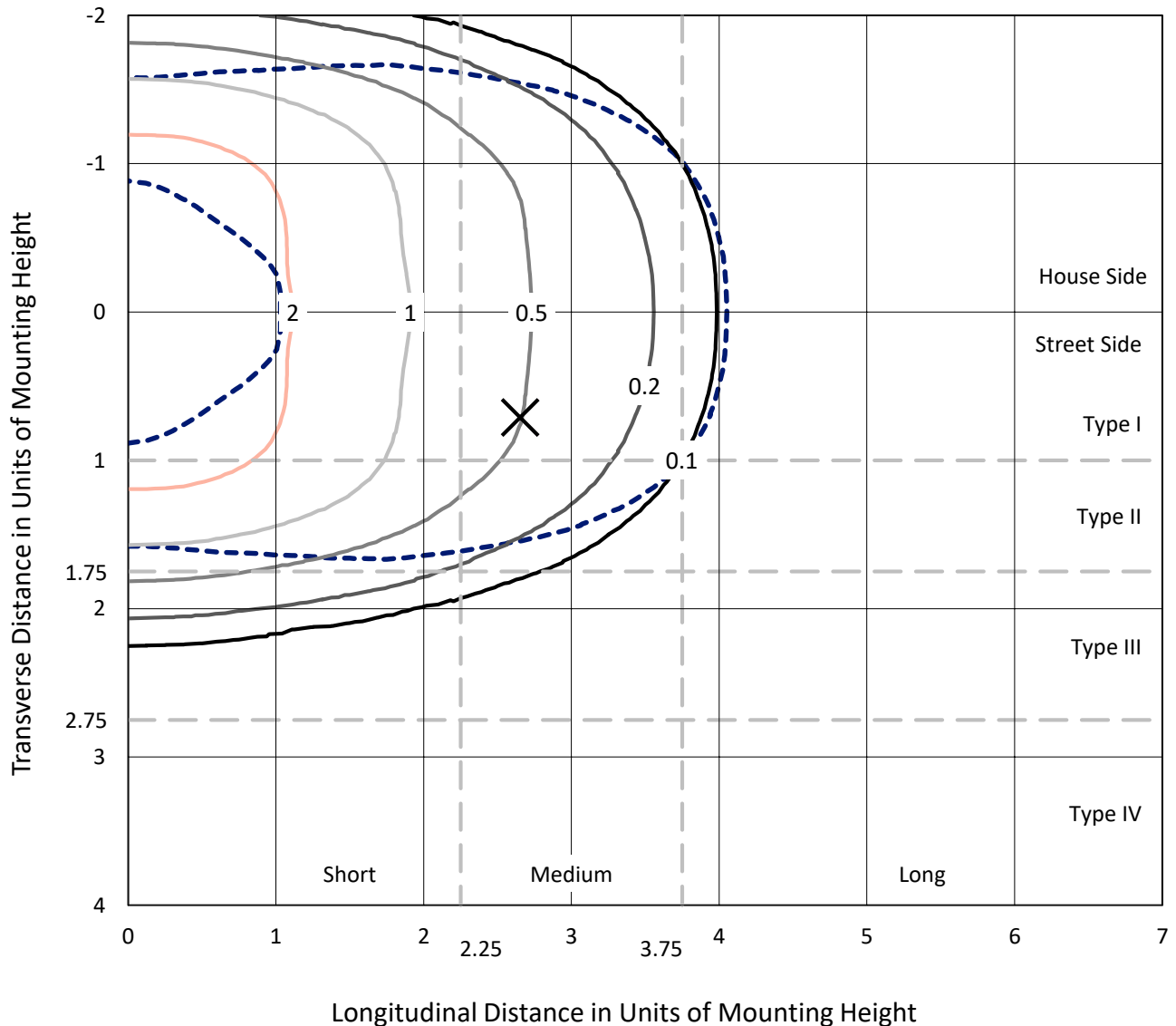


REPORT NUMBER: P196515

CATALOG NUMBER: NAV-AF-03-D-UNV-RW-7030-600

Iso-Footcandle Lines of Horizontal Illumination

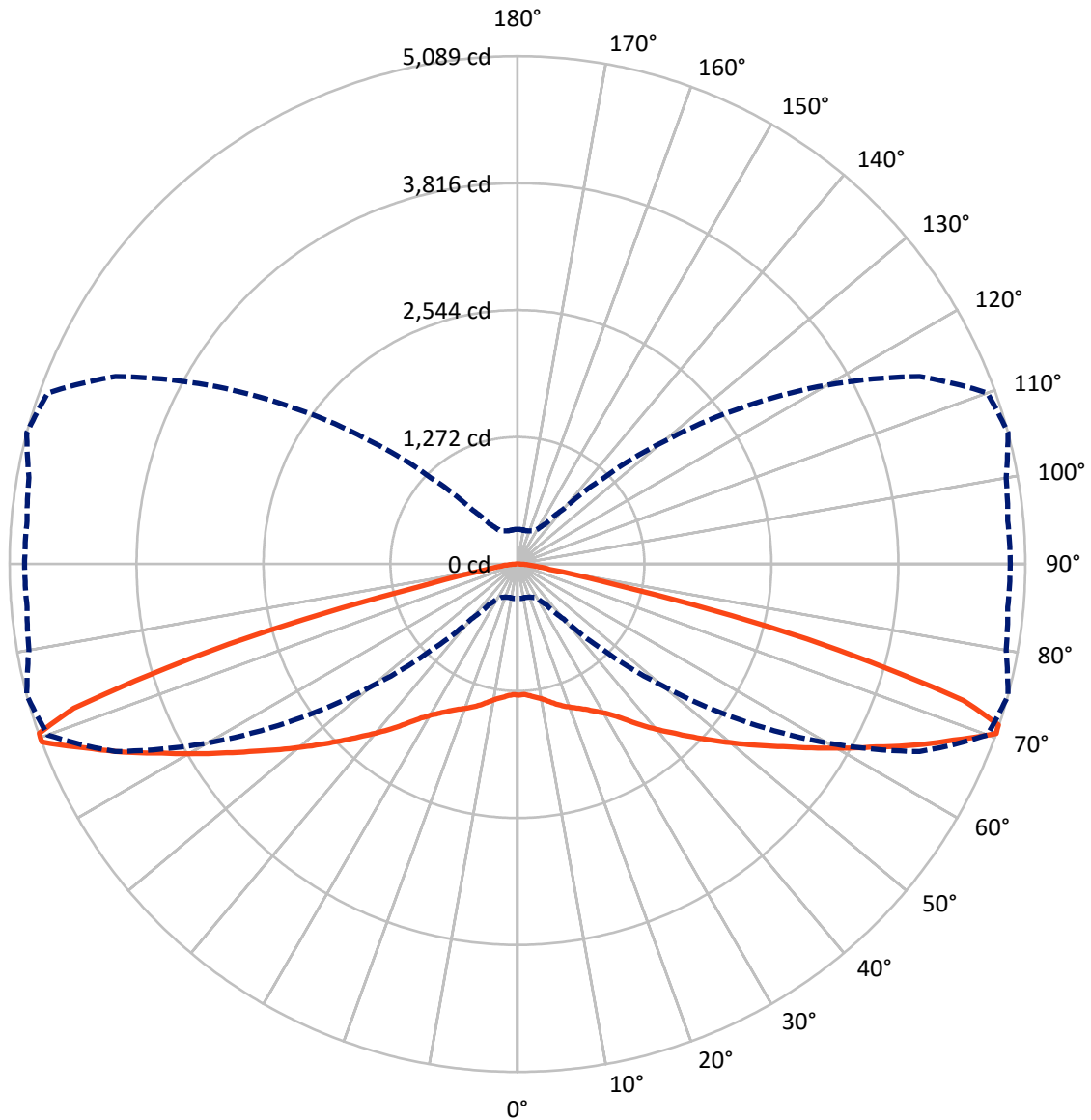
× Max cd
 - - - 1/2 Max cd



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

REPORT NUMBER: P196515
CATALOG NUMBER: NAV-AF-03-D-UNV-RW-7030-600

Luminous Intensity Polar Plot



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

REPORT NUMBER: P196515

CATALOG NUMBER: NAV-AF-03-D-UNV-RW-7030-600

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5897.8	0.0	5897.8
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	5897.8	0.0	5897.8
	% Fixture	50.0	0.0	50.0
Total	Lumens	11795.6	0.0	11795.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	126.0	1.1
10°-20°	390.8	3.3
20°-30°	733.9	6.2
30°-40°	1292.8	11.0
40°-50°	2142.5	18.2
50°-60°	2980.6	25.3
60°-70°	2813.7	23.9
70°-80°	1201.8	10.2
80°-90°	113.6	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°	11795.6	100.0
0°-180°	11795.6	100.0

Coefficient of Utilization



REPORT NUMBER: P196515

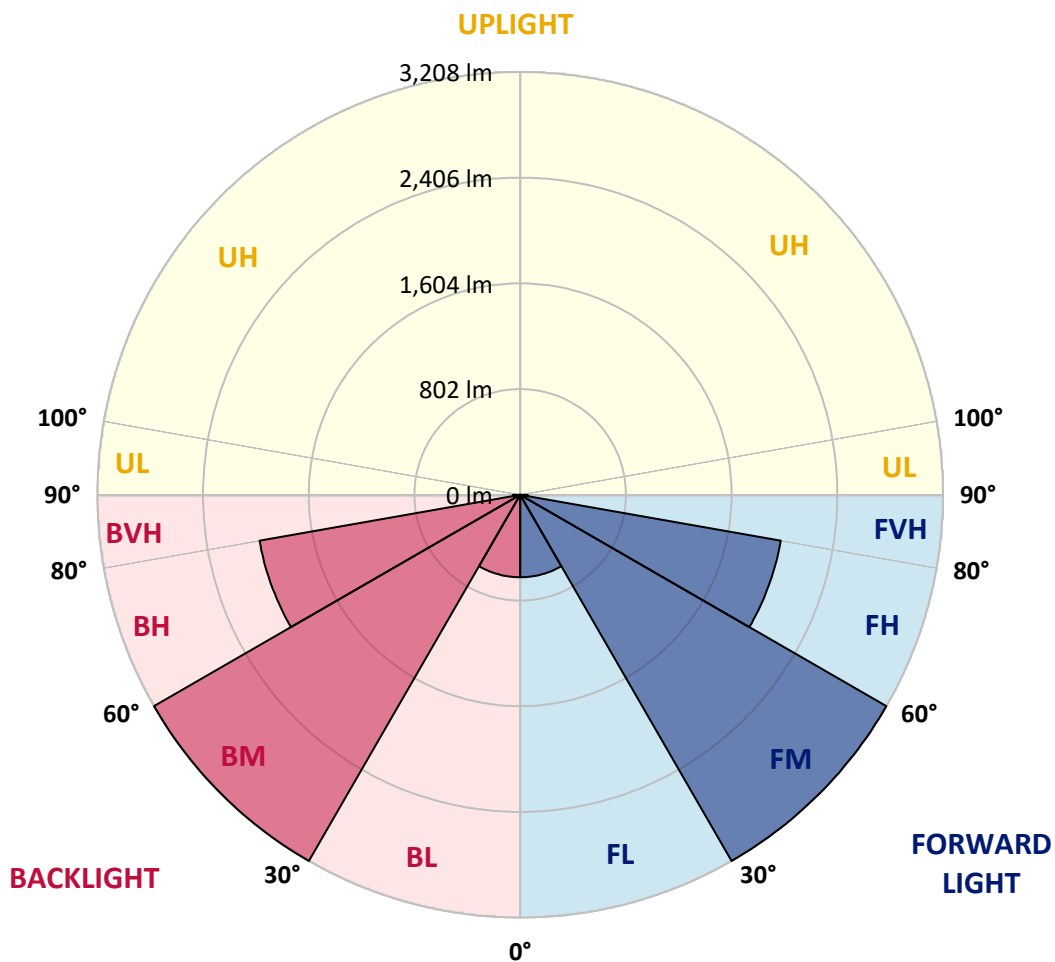
CATALOG NUMBER: NAV-AF-03-D-UNV-RW-7030-600

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	625.3	5.3			
FM	(30°-60°)	3208.0	27.2			
FH	(60°-80°)	2007.8	17.0			G2/5000
FVH	(80°-90°)	56.8	0.5			G1/100
BL	(0°-30°)	625.3	5.3	B2/1000		
BM	(30°-60°)	3208.0	27.2	B3/5000		
BH	(60°-80°)	2007.8	17.0	B3/2500		G3/2500
BVH	(80°-90°)	56.8	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: P196515

CATALOG NUMBER: NAV-AF-03-D-UNV-RW-7030-600

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1313.6	1313.6	1313.6	1313.6	1313.6	1313.6	1313.6	1313.6	1313.6	1313.6	1313.6
2.5°	1321.7	1321.0	1321.7	1319.6	1320.2	1319.6	1319.6	1316.5	1316.5	1315.1	1312.9
5°	1307.0	1308.4	1308.4	1308.4	1310.6	1310.6	1313.6	1314.3	1316.5	1318.8	1320.2
7.5°	1282.4	1283.2	1285.4	1287.0	1291.3	1297.4	1303.3	1309.9	1315.8	1323.1	1331.4
10°	1261.8	1263.2	1267.0	1270.6	1278.8	1286.2	1296.6	1307.0	1317.2	1329.8	1342.4
12.5°	1250.7	1252.9	1258.8	1264.7	1277.4	1287.0	1301.0	1317.2	1331.4	1343.2	1357.2
15°	1252.2	1252.9	1261.1	1269.1	1287.0	1300.3	1320.2	1339.4	1356.5	1369.8	1386.0
17.5°	1273.6	1275.2	1283.2	1295.0	1312.1	1329.0	1350.6	1370.4	1393.4	1408.9	1428.1
20°	1315.8	1318.0	1326.9	1339.4	1357.9	1375.7	1397.9	1418.5	1442.2	1460.7	1479.9
22.5°	1370.4	1374.2	1383.8	1399.3	1417.7	1439.3	1462.1	1483.5	1505.7	1524.2	1540.4
25°	1443.7	1448.1	1458.4	1474.0	1492.5	1515.3	1539.0	1561.2	1584.1	1598.1	1611.5
27.5°	1541.9	1549.4	1560.4	1573.0	1589.2	1613.6	1635.8	1654.3	1676.5	1692.0	1700.9
30°	1674.3	1684.7	1693.5	1706.8	1718.6	1744.6	1762.3	1777.0	1794.0	1802.9	1805.1
32.5°	1836.2	1845.8	1854.6	1864.3	1880.6	1904.2	1921.3	1929.3	1938.2	1936.7	1928.5
35°	2018.8	2026.1	2031.3	2048.3	2075.0	2090.4	2103.0	2106.0	2107.5	2092.0	2076.4
37.5°	2211.0	2219.8	2224.3	2250.8	2276.0	2293.8	2299.7	2306.4	2301.9	2276.0	2247.9
40°	2418.7	2428.3	2441.6	2464.5	2494.1	2511.1	2518.4	2517.7	2514.0	2483.7	2437.9
42.5°	2622.7	2634.5	2645.6	2685.5	2709.9	2738.7	2742.4	2741.7	2733.5	2698.8	2645.6
45°	2795.6	2809.7	2832.6	2877.1	2916.1	2950.9	2965.0	2970.1	2962.0	2925.0	2864.4
47.5°	2938.3	2948.0	2976.8	3030.8	3081.0	3132.0	3160.1	3180.0	3179.3	3152.6	3088.4
50°	3035.9	3047.0	3082.4	3143.1	3205.8	3265.8	3321.3	3366.3	3387.8	3368.6	3308.7
52.5°	3063.9	3078.1	3124.6	3197.0	3270.2	3350.8	3433.6	3513.4	3561.5	3573.4	3526.7
55°	2945.7	2961.3	3029.2	3129.7	3250.3	3369.2	3494.9	3608.8	3707.8	3753.7	3735.1
57.5°	2601.3	2612.3	2698.8	2828.9	3001.2	3210.4	3421.8	3630.2	3800.2	3919.2	3939.9
60°	2057.3	2071.2	2165.8	2303.3	2499.2	2763.8	3059.6	3401.0	3734.5	4007.2	4142.4
62.5°	1388.2	1397.9	1488.7	1614.5	1828.8	2083.8	2413.5	2845.8	3321.3	3808.3	4189.8
65°	728.9	728.9	790.2	878.1	1048.9	1277.4	1615.2	2058.7	2624.2	3232.6	3870.4
67.5°	422.9	422.1	436.2	456.0	510.0	602.4	788.8	1114.7	1650.0	2358.1	3084.0
70°	348.9	346.7	344.5	344.5	352.6	366.7	402.1	491.5	719.3	1215.9	1897.5
71°	333.3	331.9	326.0	323.7	327.4	334.9	350.4	391.8	510.8	829.4	1417.1
72.5°	314.8	311.2	302.3	298.6	299.4	302.3	306.8	323.1	359.3	471.6	808.0
75°	286.8	277.9	266.8	261.6	259.5	258.7	258.7	263.2	271.3	284.6	331.2
77.5°	254.2	241.7	229.9	224.7	221.0	218.8	217.3	214.3	212.8	218.8	235.8
80°	215.1	201.8	192.2	189.2	187.1	182.6	176.7	170.8	167.0	170.0	180.4
82.5°	166.3	153.0	154.5	155.2	151.6	144.1	138.2	131.5	124.9	123.5	128.6
85°	132.3	125.6	121.3	130.9	122.7	113.8	105.7	94.6	79.1	65.0	70.9
87.5°	57.0	57.7	82.8	124.9	109.4	88.0	73.2	59.1	37.7	28.1	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: P196515

CATALOG NUMBER: NAV-AF-03-D-UNV-RW-7030-600

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1313.6	1313.6	1313.6	1313.6	1313.6	1313.6	1313.6	1313.6
2.5°	1312.1	1312.1	1309.9	1308.4	1308.4	1308.4	1307.0	1307.7
5°	1321.0	1322.5	1323.9	1323.1	1325.5	1327.6	1326.9	1326.1
7.5°	1335.7	1340.2	1344.7	1346.8	1349.8	1352.7	1353.5	1351.2
10°	1350.6	1359.4	1366.1	1372.0	1375.7	1378.7	1380.8	1380.1
12.5°	1369.0	1381.6	1393.4	1405.2	1413.4	1417.7	1422.2	1420.7
15°	1399.3	1413.4	1428.1	1443.7	1456.2	1462.9	1469.5	1468.0
17.5°	1440.7	1453.2	1465.0	1480.6	1496.1	1503.5	1510.9	1510.2
20°	1492.5	1502.1	1508.8	1517.6	1532.4	1540.4	1547.1	1544.9
22.5°	1551.6	1554.5	1555.3	1558.2	1570.0	1579.7	1588.5	1590.7
25°	1616.0	1613.6	1609.3	1606.9	1615.2	1625.4	1636.6	1639.6
27.5°	1695.7	1688.4	1677.2	1668.4	1670.6	1683.9	1696.5	1699.4
30°	1796.2	1779.3	1755.6	1738.7	1735.7	1749.7	1763.0	1767.4
32.5°	1910.8	1887.9	1855.4	1829.5	1818.4	1830.9	1842.8	1849.4
35°	2046.9	2021.8	1982.5	1949.3	1931.4	1939.7	1960.3	1967.8
37.5°	2208.0	2173.2	2129.7	2087.5	2057.9	2059.4	2081.6	2090.4
40°	2386.1	2335.9	2280.5	2227.9	2185.0	2182.1	2202.1	2208.6
42.5°	2571.6	2507.4	2442.3	2373.5	2320.3	2310.8	2336.6	2337.4
45°	2771.3	2688.5	2607.9	2528.0	2472.6	2455.6	2480.7	2483.7
47.5°	2984.2	2880.6	2785.3	2698.8	2638.9	2612.3	2636.8	2641.2
50°	3205.8	3098.7	2987.8	2891.8	2821.5	2789.0	2817.8	2820.7
52.5°	3425.5	3324.2	3214.1	3103.9	3019.0	2981.9	3015.9	3026.3
55°	3646.5	3548.8	3445.4	3335.2	3228.1	3195.7	3232.6	3243.6
57.5°	3876.4	3782.4	3688.6	3577.7	3473.5	3423.9	3463.8	3479.4
60°	4129.9	4047.1	3958.5	3846.8	3744.1	3686.4	3720.4	3738.1
62.5°	4379.0	4362.0	4281.5	4165.4	4035.3	3977.6	4006.4	4019.0
65°	4399.8	4675.4	4671.7	4556.4	4374.6	4277.7	4285.9	4291.8
67.5°	3840.1	4472.8	4877.3	4913.5	4710.9	4559.4	4541.7	4545.3
70°	2718.8	3587.3	4445.5	5008.8	5088.6	4971.1	4932.7	4938.6
71°	2178.4	3078.1	4022.7	4780.4	5082.7	5048.8	5027.3	5042.9
72.5°	1390.5	2267.9	3187.4	4093.7	4674.0	4840.3	4864.7	4874.3
75°	504.9	975.8	1651.4	2366.2	2998.9	3434.3	3673.9	3693.1
77.5°	271.3	349.6	540.4	807.2	1014.2	1125.1	1138.4	1143.5
80°	199.6	231.4	264.6	302.3	326.0	330.4	322.4	305.3
82.5°	141.2	159.6	172.9	186.3	195.9	187.7	156.0	119.0
85°	82.1	90.1	97.6	104.3	105.7	99.8	65.8	54.0
87.5°	32.6	35.5	34.8	39.3	37.7	34.8	25.9	22.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)