

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: P195792

Luminaire Tested: **NAV-AF-06-D-UNV-T2-7050-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P195792
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24136)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-AF-06-D-UNV-T2-7050-1200
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 5000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 38679 lumens
Efficiency: N/A
Efficacy: 101.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B3 - U0 - G5

Input Watts (W): 382
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

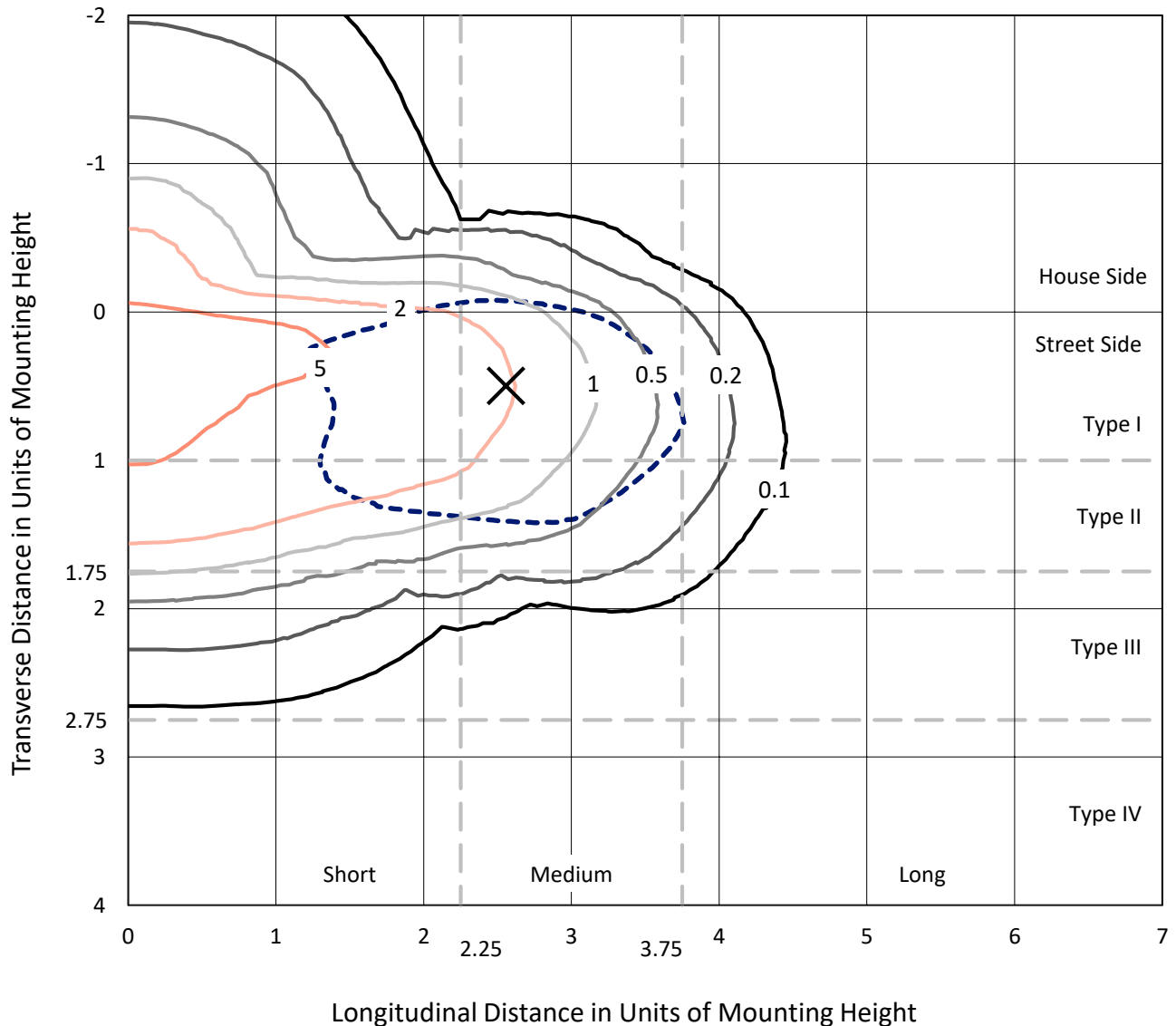


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

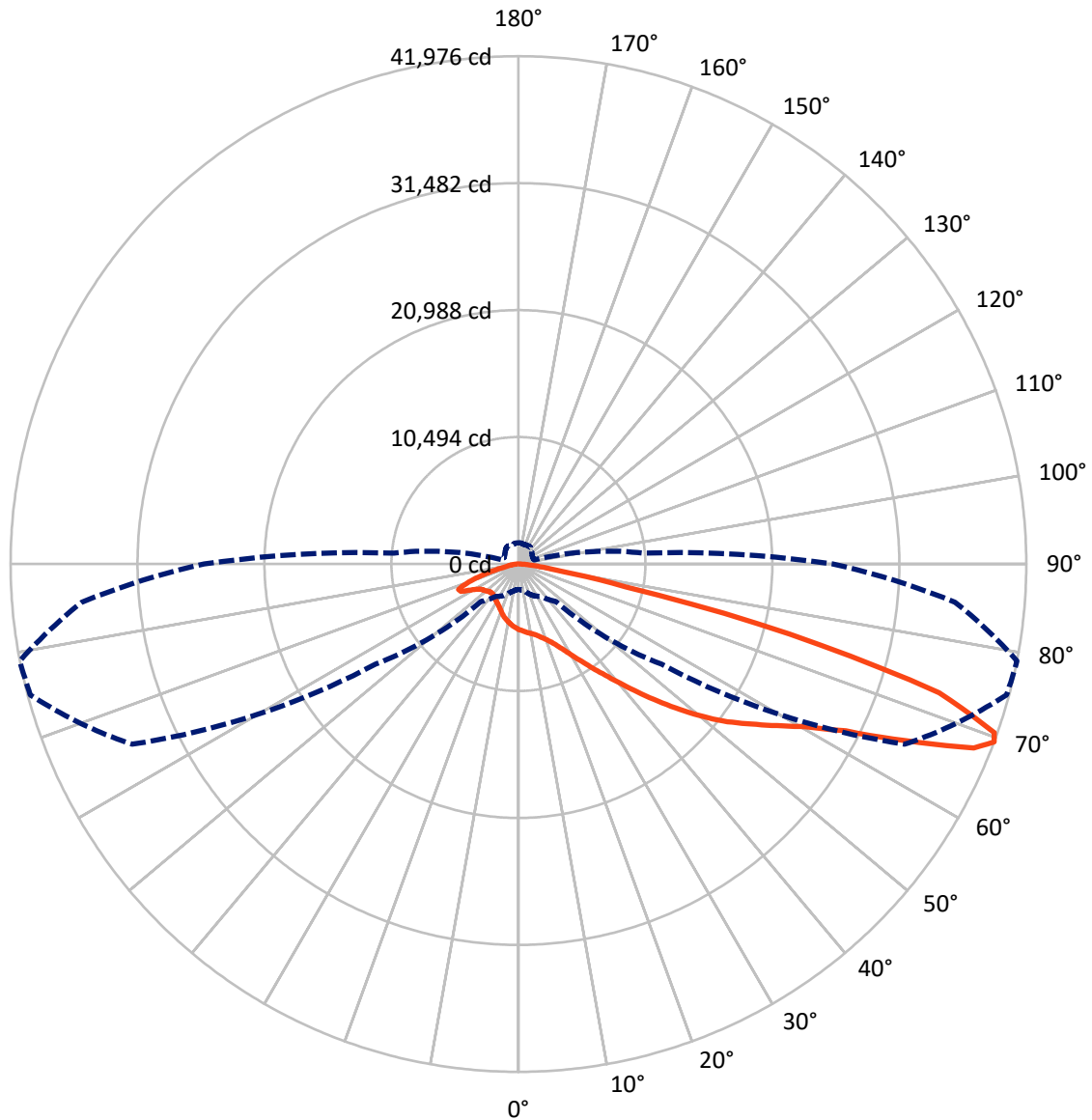


Based on 30 foot mounting height. Maximum calculated value = 7.3 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 79-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7276.2	0.0	7276.2
	% Fixture	18.8	0.0	18.8
Street Side	Lumens	31402.8	0.0	31402.8
	% Fixture	81.2	0.0	81.2
Total	Lumens	38679.0	0.0	38679.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	503.2	1.3
10°-20°	1442.6	3.7
20°-30°	2383.8	6.2
30°-40°	3860.1	10.0
40°-50°	6166.4	15.9
50°-60°	8831.0	22.8
60°-70°	9839.0	25.4
70°-80°	4922.3	12.7
80°-90°	730.5	1.9
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°	38679.0	100.0
0°-180°	38679.0	100.0



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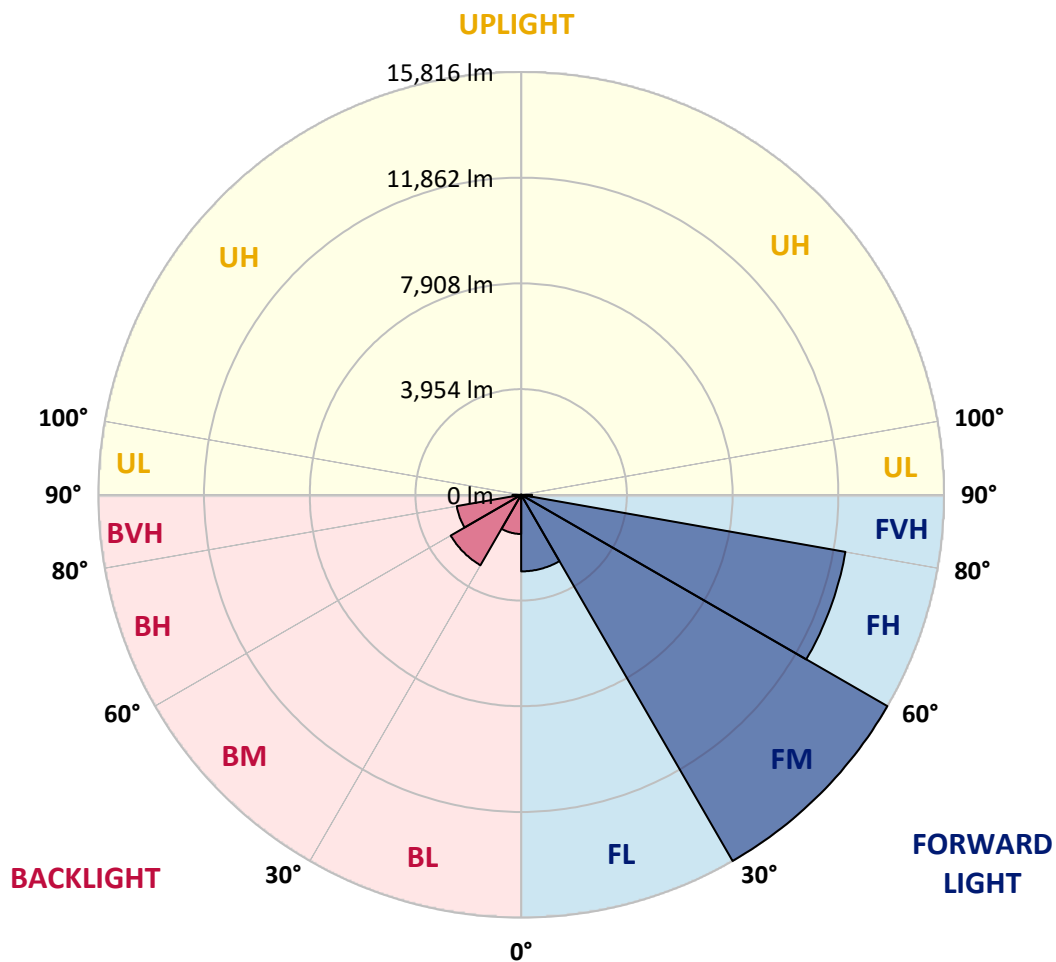
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2863.8	7.4			
FM (30°-60°)	15815.9	40.9			
FH (60°-80°)	12314.9	31.8			G5
FVH (80°-90°)	408.2	1.1			G3/500
BL (0°-30°)	1465.8	3.8	B3/2500		
BM (30°-60°)	3041.6	7.9	B3/5000		
BH (60°-80°)	2446.5	6.3	B3/2500		G3/2500
BVH (80°-90°)	322.3	0.8			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
0°	5427.9	5427.9	5427.9	5427.9	5427.9	5427.9	5427.9	5427.9	5427.9	5427.9	5427.9
2.5°	5959.3	5946.6	5944.1	5906.1	5885.9	5842.9	5741.7	5637.9	5541.8	5491.1	5438.0
5°	6457.8	6432.5	6419.8	6356.6	6300.9	6204.7	6045.3	5880.8	5708.8	5620.2	5513.9
7.5°	6758.9	6761.5	6761.5	6710.8	6655.2	6538.8	6336.3	6111.1	5855.5	5739.1	5572.1
10°	6784.2	6786.8	6824.7	6837.4	6850.0	6789.3	6602.0	6318.6	5989.7	5837.8	5620.2
12.5°	6533.7	6551.4	6614.7	6705.8	6834.8	6900.6	6819.7	6541.3	6161.7	5977.0	5711.3
15°	6197.2	6214.9	6295.8	6435.0	6642.5	6862.7	6976.5	6796.9	6386.9	6169.3	5845.4
17.5°	6032.7	6052.9	6108.6	6219.9	6422.4	6718.4	7060.0	7070.2	6652.6	6402.1	6004.8
20°	5954.2	5969.4	6040.3	6131.4	6285.7	6569.1	7067.6	7358.6	6969.0	6677.9	6199.7
22.5°	6133.9	6139.0	6174.4	6225.0	6328.7	6546.4	7062.6	7657.2	7363.7	7024.6	6450.2
25°	6660.2	6627.3	6602.0	6538.8	6564.1	6718.4	7143.6	7976.1	7869.8	7480.1	6784.2
27.5°	7282.7	7277.7	7211.9	7065.1	6971.5	7070.2	7373.8	8332.9	8489.8	8059.6	7222.0
30°	7976.1	7978.6	7910.3	7730.6	7540.8	7551.0	7740.7	8745.3	9231.2	8758.0	7761.0
32.5°	8702.3	8747.9	8621.4	8441.7	8211.4	8138.0	8267.1	9243.9	10089.0	9582.9	8386.0
35°	9570.3	9577.9	9438.7	9175.5	8945.3	8828.9	8947.8	9866.4	11078.5	10552.1	9147.7
37.5°	10471.1	10476.2	10332.0	9995.4	9704.4	9628.5	9760.1	10623.0	12126.1	11655.4	10043.5
40°	11207.5	11260.6	11146.8	10830.5	10536.9	10491.4	10681.2	11528.9	13464.7	12961.1	11108.8
42.5°	12042.6	12103.3	11966.7	11637.7	11404.9	11389.7	11685.8	12561.3	14795.7	14471.8	12315.9
45°	12983.9	13069.9	12880.2	12510.7	12313.3	12647.4	12665.1	13705.1	16329.2	16162.2	13674.7
47.5°	14011.3	14082.1	13927.8	13530.5	13315.4	13798.7	13624.1	14942.5	17986.7	17974.0	15144.9
50°	14803.3	14881.8	14897.0	14722.4	14497.1	14557.9	14676.8	16243.2	19639.1	19836.5	16665.8
52.5°	14659.1	14735.0	15076.6	15534.6	15896.5	15739.6	15883.8	17624.8	21235.8	21653.3	18110.7
55°	13495.1	13535.6	14175.8	15263.9	16804.9	17554.0	17564.1	19127.9	22754.1	23338.6	19482.2
57.5°	11397.3	11402.4	12234.9	13839.2	16276.1	18730.6	20216.0	21015.7	24338.2	25201.1	21182.7
60°	8064.6	8084.9	9054.1	11151.8	14380.7	18588.9	23067.9	24393.9	26172.8	27293.8	23374.1
62.5°	4787.7	4833.2	5564.5	7247.3	10681.2	16767.0	24753.2	30403.8	28875.3	30363.3	26881.3
65°	3115.0	3153.0	3590.8	4435.9	6311.0	12199.5	24199.0	36223.9	33989.4	35191.4	31922.0
67.5°	2398.9	2429.3	2773.4	3284.6	3871.6	6594.4	19348.1	37443.6	40214.4	40588.9	36175.8
69°	2107.9	2133.2	2386.2	2877.2	3259.3	4365.1	14418.7	35229.4	41770.7	41975.7	36228.9
70°	1953.5	1973.8	2211.6	2636.8	2993.6	3484.5	11035.4	32658.4	41201.3	41725.1	35183.8
72.5°	1609.4	1627.1	1796.6	2123.1	2447.0	2482.4	4888.9	23847.3	34692.9	36368.1	29773.7
75°	1343.7	1353.8	1465.1	1703.0	1981.4	1976.3	2497.6	13507.7	21170.0	23166.6	18384.0
77.5°	1121.0	1128.6	1202.0	1348.7	1563.8	1556.2	1758.7	5830.2	9347.6	9018.6	6328.7
80°	989.4	994.5	1032.4	1070.4	1207.0	1199.4	1303.2	2677.3	3803.3	3514.8	2393.8
82.5°	751.6	761.7	954.0	971.7	936.3	903.4	908.4	1558.8	1948.5	1773.9	1285.5
85°	425.1	427.7	612.4	716.1	814.8	612.4	589.6	804.7	961.6	842.7	561.8
87.5°	189.8	197.4	293.5	339.1	440.3	359.3	336.6	341.6	415.0	344.1	222.7
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°	5427.9	5427.9	5427.9	5427.9	5427.9	5427.9	5427.9	5427.9	5427.9	5427.9	5427.9
2.5°	5387.4	5344.4	5243.2	5139.4	5035.7	4969.9	4901.5	4838.3	4813.0	4810.4	4762.4
5°	5410.2	5309.0	5078.7	4825.6	4585.2	4398.0	4241.1	4139.9	4041.2	4023.5	3980.4
7.5°	5417.8	5253.3	4878.8	4473.9	4107.0	3848.9	3692.0	3623.7	3575.6	3562.9	3547.7
10°	5415.2	5182.4	4656.1	4101.9	3684.4	3489.5	3431.3	3446.5	3466.8	3476.9	3476.9
12.5°	5455.7	5149.5	4433.4	3752.7	3411.1	3317.5	3363.0	3441.5	3502.2	3527.5	3532.6
15°	5529.1	5129.3	4187.9	3449.0	3218.8	3241.5	3352.9	3466.8	3552.8	3590.8	3600.9
17.5°	5620.2	5101.5	3904.5	3198.5	3107.4	3185.9	3330.1	3474.4	3578.1	3626.2	3633.8
20°	5721.4	5061.0	3611.0	3011.3	3008.7	3107.4	3251.7	3413.6	3525.0	3578.1	3575.6
22.5°	5858.1	5023.0	3337.7	2874.6	2899.9	2991.0	3110.0	3256.7	3360.5	3408.6	3398.4
25°	6040.3	4987.6	3092.3	2753.2	2775.9	2836.7	2920.2	3031.5	3104.9	3130.2	3112.5
27.5°	6285.7	4959.7	2899.9	2641.8	2639.3	2667.1	2717.7	2778.5	2813.9	2806.3	2778.5
30°	6586.8	4931.9	2758.2	2543.1	2507.7	2505.2	2528.0	2563.4	2586.2	2540.6	2517.8
32.5°	6923.4	4883.8	2631.7	2457.1	2393.8	2371.1	2381.2	2429.3	2522.9	2477.3	2459.6
35°	7320.7	4828.2	2505.2	2363.5	2315.4	2272.4	2280.0	2383.7	2667.1	2634.2	2616.5
37.5°	7798.9	4777.6	2388.8	2262.3	2259.7	2206.6	2201.5	2325.5	2705.1	2634.2	2619.0
40°	8373.4	4767.4	2285.0	2150.9	2191.4	2171.2	2153.4	2229.4	2495.1	2350.8	2323.0
42.5°	9066.7	4813.0	2209.1	2044.6	2113.0	2161.0	2128.1	2145.8	2254.7	2125.6	2102.8
45°	9876.5	4937.0	2153.4	1951.0	2029.4	2153.4	2115.5	2100.3	2118.0	2047.2	2032.0
47.5°	10820.3	5157.1	2115.5	1872.6	1951.0	2133.2	2110.4	2080.1	2072.5	2032.0	2021.9
50°	11830.0	5453.2	2090.2	1801.7	1880.1	2097.8	2107.9	2064.9	2052.2	2034.5	2029.4
52.5°	12832.1	5774.6	2059.8	1741.0	1821.9	2054.8	2110.4	2049.7	2032.0	2021.9	2016.8
55°	13829.1	6108.6	2004.1	1687.8	1778.9	2004.1	2107.9	2029.4	2009.2	2009.2	2009.2
57.5°	15122.2	6617.2	1930.8	1644.8	1723.3	1938.3	2075.0	2006.7	1978.8	1981.4	1983.9
60°	16989.7	7470.0	1849.8	1596.7	1649.9	1862.4	2024.4	1966.2	1933.3	1943.4	1945.9
62.5°	20109.7	8960.4	1738.4	1528.4	1574.0	1781.5	1958.6	1910.5	1880.1	1897.9	1900.4
65°	24269.9	10764.7	1591.7	1442.4	1495.5	1690.4	1875.1	1844.7	1811.8	1854.8	1852.3
67.5°	26807.9	11293.5	1437.3	1351.3	1419.6	1594.2	1771.3	1758.7	1735.9	1811.8	1806.8
69°	25975.4	10337.0	1348.7	1293.1	1366.5	1528.4	1705.5	1700.5	1682.8	1756.2	1751.1
70°	24682.3	9443.8	1293.1	1255.1	1338.6	1487.9	1662.5	1662.5	1644.8	1708.1	1695.4
72.5°	19826.3	7004.4	1164.0	1159.0	1242.5	1376.6	1546.1	1558.8	1548.7	1571.4	1558.8
75°	11640.2	4220.8	1037.5	1052.7	1126.1	1257.7	1417.1	1427.2	1417.1	1414.5	1417.1
77.5°	4036.1	1892.8	916.0	938.8	1002.1	1136.2	1275.4	1295.6	1280.4	1262.7	1267.8
80°	1579.0	1100.8	784.4	817.3	870.5	999.5	1133.7	1146.3	1123.5	1121.0	1100.8
82.5°	948.9	670.6	609.8	663.0	728.8	868.0	979.3	974.2	956.5	1060.3	928.7
85°	412.5	372.0	445.4	498.5	531.4	650.3	827.5	804.7	761.7	670.6	655.4
87.5°	167.0	192.3	245.5	296.1	318.8	420.1	566.8	546.6	554.2	455.5	453.0
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)