

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: P196781

Luminaire Tested: **NAV-AF-05-D-UNV-T3-7030-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196781
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (p24135)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-AF-05-D-UNV-T3-7030-600
Description: NAVION ROADWAY AND AREA LUMINAIRE
(5) 70 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19166.3 lumens
Efficiency: N/A
Efficacy: 118.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G3

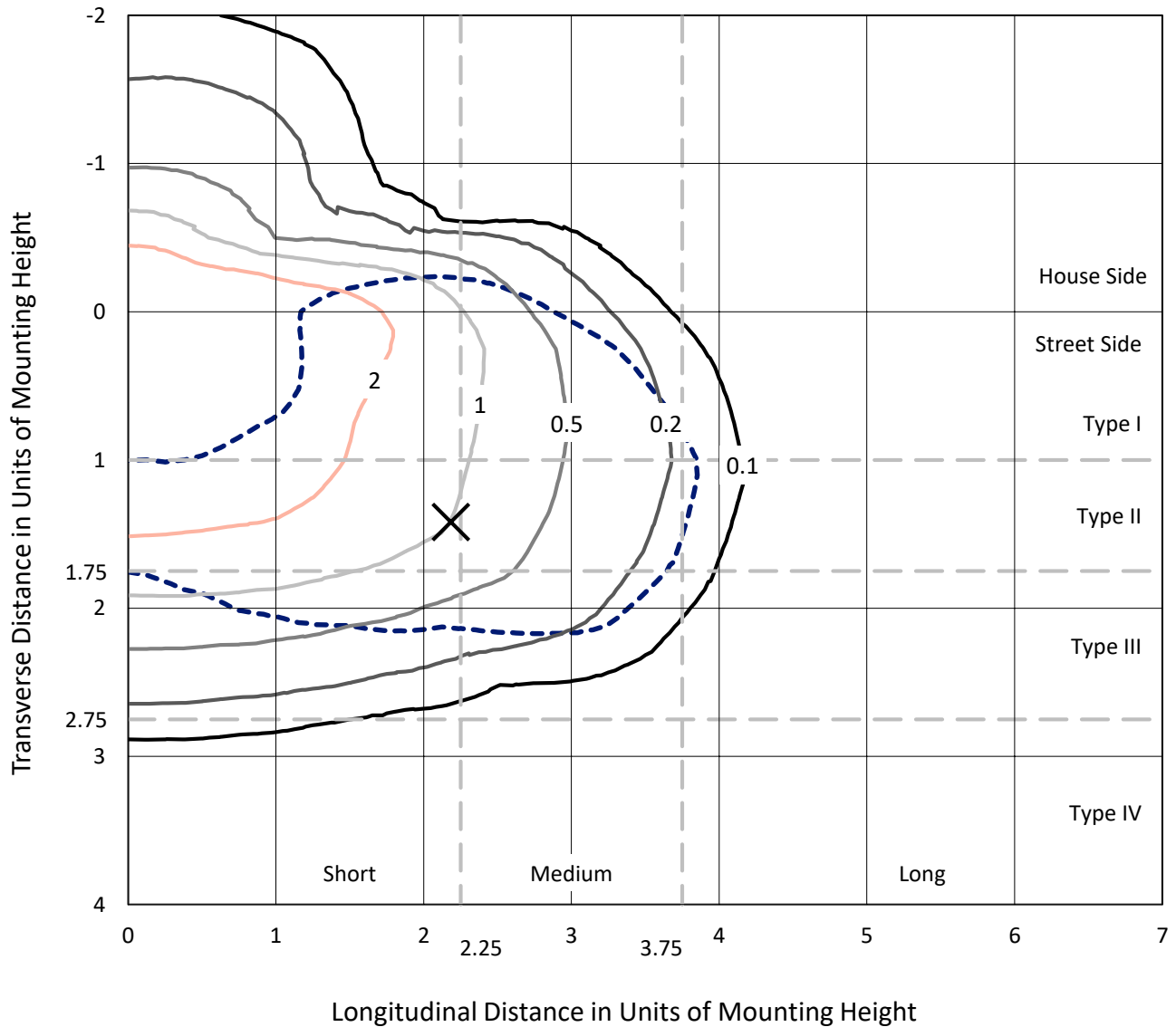
Input Watts (W): 162
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P196781
 CATALOG NUMBER: NAV-AF-05-D-UNV-T3-7030-600

Iso-Footcandle Lines of Horizontal Illumination

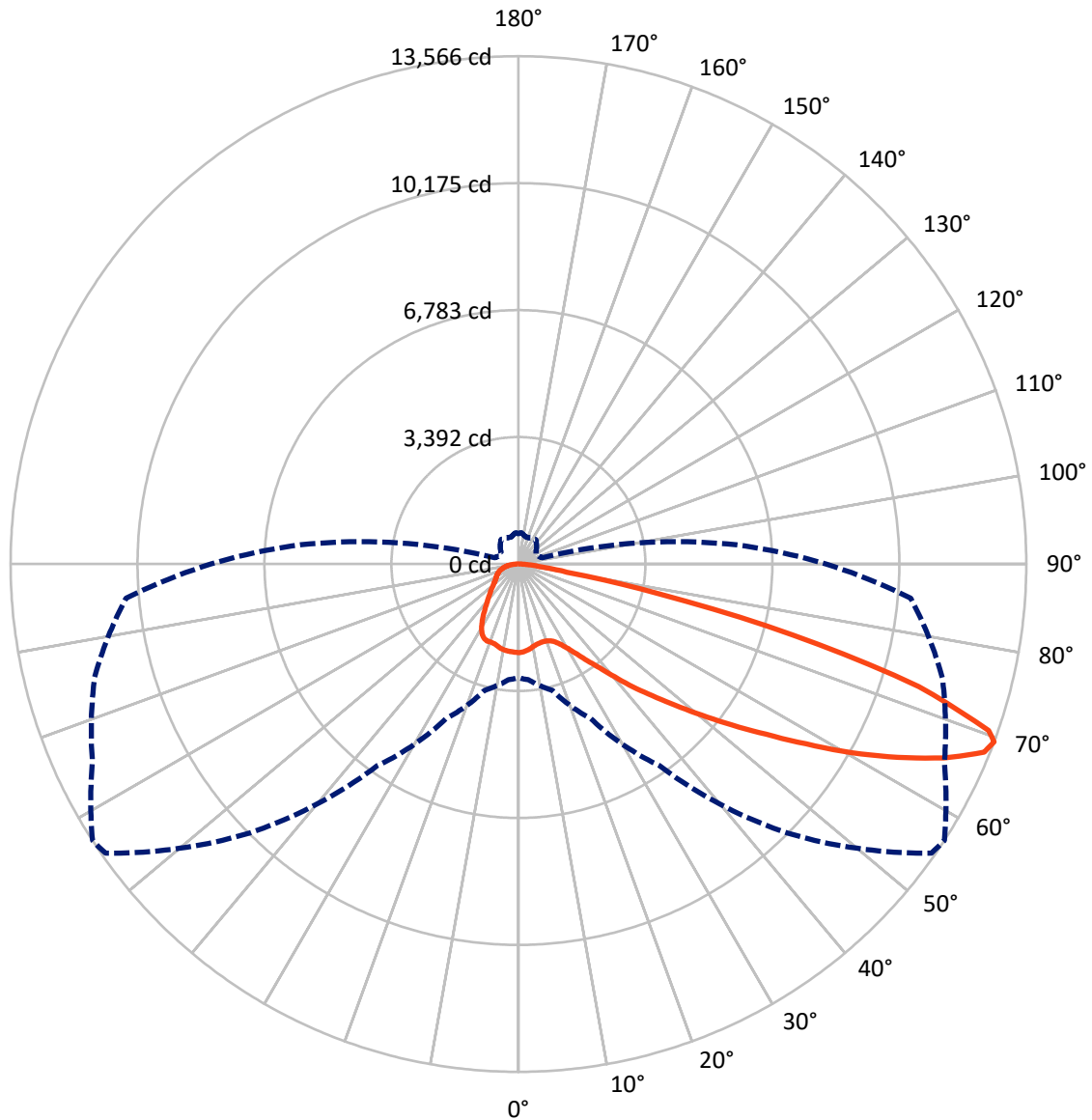
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.9 fc
 Type III - Short - Semi-Cutoff

REPORT NUMBER: P196781
CATALOG NUMBER: NAV-AF-05-D-UNV-T3-7030-600

Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

REPORT NUMBER: P196781

CATALOG NUMBER: NAV-AF-05-D-UNV-T3-7030-600

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4229.3	0.0	4229.3
	% Fixture	22.1	0.0	22.1
Street Side	Lumens	14936.9	0.0	14936.9
	% Fixture	77.9	0.0	77.9
Total	Lumens	19166.3	0.0	19166.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	221.7	1.2
10°-20°	630.4	3.3
20°-30°	1048.6	5.5
30°-40°	1712.4	8.9
40°-50°	2890.1	15.1
50°-60°	4495.7	23.5
60°-70°	5355.3	27.9
70°-80°	2494.9	13.0
80°-90°	317.3	1.7
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°	19166.3	100.0
0°-180°	19166.3	100.0

Coefficient of Utilization



REPORT NUMBER: P196781

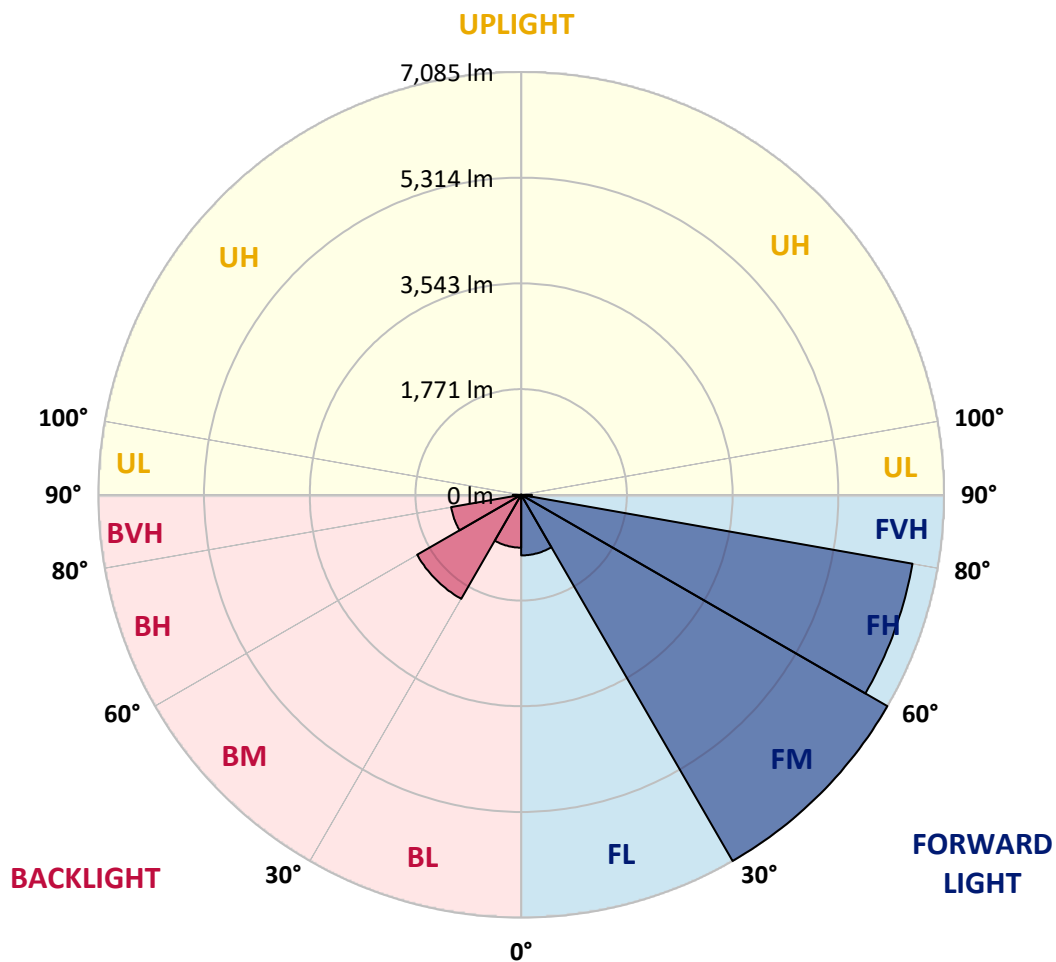
CATALOG NUMBER: NAV-AF-05-D-UNV-T3-7030-600

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1015.0	5.3			
FM	(30°-60°)	7085.2	37.0			
FH	(60°-80°)	6658.4	34.7			G3/7500
FVH	(80°-90°)	178.4	0.9			G2/225
BL	(0°-30°)	885.7	4.6	B2/1000		
BM	(30°-60°)	2012.9	10.5	B2/2500		
BH	(60°-80°)	1191.8	6.2	B3/2500		G3/2500
BVH	(80°-90°)	138.9	0.7			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type III Short





REPORT NUMBER: P196781

CATALOG NUMBER: NAV-AF-05-D-UNV-T3-7030-600

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	2368.2	2368.2	2368.2	2368.2	2368.2	2368.2	2368.2	2368.2	2368.2	2368.2	2368.2
2.5°	2354.6	2354.6	2360.8	2360.8	2360.8	2358.4	2351.0	2353.5	2348.5	2344.8	2338.7
5°	2306.8	2309.3	2316.7	2319.1	2322.8	2324.1	2324.1	2322.8	2324.1	2324.1	2320.3
7.5°	2240.6	2243.0	2251.7	2256.5	2267.5	2277.4	2282.3	2282.3	2288.4	2293.4	2294.6
10°	2200.1	2200.1	2205.0	2205.0	2213.6	2218.5	2234.5	2233.2	2250.4	2266.4	2273.6
12.5°	2195.1	2195.1	2192.8	2184.1	2179.1	2178.0	2193.9	2196.4	2222.2	2250.4	2263.9
15°	2211.1	2211.1	2203.8	2186.6	2168.1	2159.6	2175.6	2180.5	2208.6	2241.8	2262.6
17.5°	2262.6	2261.4	2245.5	2211.1	2179.1	2165.7	2170.7	2175.6	2201.3	2239.4	2265.1
20°	2376.7	2376.7	2342.4	2279.8	2224.6	2192.8	2185.4	2189.0	2207.5	2243.0	2276.2
22.5°	2576.8	2580.4	2519.1	2416.0	2321.5	2254.0	2224.6	2228.4	2236.9	2271.3	2308.1
25°	2871.3	2861.5	2774.3	2628.3	2481.1	2365.7	2305.6	2309.3	2309.3	2341.2	2379.2
27.5°	3182.9	3185.4	3060.3	2903.1	2709.3	2537.5	2441.8	2440.6	2439.3	2470.1	2510.6
30°	3535.1	3536.2	3391.5	3209.9	2987.8	2768.2	2624.6	2623.5	2612.4	2650.4	2703.2
32.5°	3920.3	3919.1	3751.1	3546.1	3299.5	3050.4	2863.9	2862.7	2854.1	2905.6	2969.4
35°	4347.4	4347.4	4180.5	3927.8	3661.5	3384.2	3168.2	3167.0	3171.9	3241.8	3302.0
37.5°	4861.5	4872.5	4671.3	4364.6	4073.7	3778.0	3526.5	3519.1	3482.3	3600.1	3699.5
40°	5397.7	5428.4	5219.9	4861.5	4547.4	4241.9	3964.6	3959.7	3927.8	4052.9	4213.7
42.5°	5978.1	6048.0	5816.2	5450.5	5108.2	4778.1	4499.6	4486.0	4363.4	4558.4	4810.0
45°	6738.9	6784.2	6448.1	6116.8	5794.0	5417.4	5086.0	5013.7	4891.0	5141.3	5467.7
47.5°	7256.7	7234.6	7024.9	6802.7	6595.3	6234.6	5725.3	5633.3	5483.6	5814.9	6174.5
50°	7578.2	7594.2	7476.3	7465.2	7454.2	7202.7	6446.9	6336.4	6163.5	6556.1	6975.6
52.5°	7790.4	7718.1	7739.0	7989.2	8292.3	8172.0	7262.8	7140.1	6962.2	7354.9	7828.5
55°	7702.1	7606.4	7799.0	8292.3	9005.2	9032.3	8158.6	8032.2	7880.0	8203.9	8854.3
57.5°	7336.4	7384.3	7688.6	8374.5	9492.3	9802.7	9188.0	9059.2	8759.8	9088.6	9828.5
60°	6822.3	6919.3	7384.3	8244.4	9833.5	10402.8	10318.1	10232.2	9716.9	9950.0	10851.8
62.5°	6270.2	6365.9	6937.6	8022.4	9680.1	10934.1	11427.4	11374.7	10773.4	10779.5	11500.9
65°	5454.2	5493.4	6077.5	7416.2	9254.3	11413.9	12537.8	12491.2	11783.2	11487.5	11682.6
67.5°	4119.2	4168.2	4648.0	5854.2	7958.6	11153.7	13425.0	13417.6	12390.6	11750.1	11250.7
69°	3041.8	3102.0	3493.3	4544.9	6580.5	10162.3	13466.7	13566.0	12555.0	11723.1	10520.6
70°	2225.8	2294.6	2656.5	3607.5	5481.2	9067.8	13109.7	13323.2	12492.4	11552.5	9951.3
72.5°	946.0	969.3	1147.3	1628.3	2780.4	5467.7	10737.8	11186.8	11282.5	10351.2	7774.5
75°	592.6	600.1	670.0	835.7	1236.9	2261.4	6953.6	7565.8	8423.6	8031.0	5205.1
77.5°	446.7	452.8	493.3	575.5	768.1	844.2	3225.9	3846.8	4824.7	4724.1	2590.3
80°	342.3	346.1	373.0	418.5	541.2	528.9	1046.7	1315.4	2013.5	1776.8	916.5
82.5°	268.7	270.0	293.3	301.9	377.9	355.8	525.2	585.3	813.6	676.1	447.9
85°	238.0	241.7	265.1	220.8	241.7	214.7	288.3	312.9	431.9	407.4	169.4
87.5°	121.5	127.7	222.2	188.9	121.5	101.8	126.4	136.2	175.5	190.2	82.2
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: P196781

CATALOG NUMBER: NAV-AF-05-D-UNV-T3-7030-600

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2368.2	2368.2	2368.2	2368.2	2368.2	2368.2	2368.2	2368.2	2368.2	2368.2	2368.2
2.5°	2340.0	2341.2	2344.8	2351.0	2360.8	2373.1	2387.9	2402.5	2411.2	2417.3	2414.8
5°	2320.3	2321.5	2328.9	2340.0	2352.3	2370.6	2395.2	2413.5	2427.0	2435.7	2434.4
7.5°	2295.7	2299.5	2314.2	2326.4	2343.6	2358.4	2378.0	2395.2	2408.6	2417.3	2416.0
10°	2277.4	2281.0	2299.5	2315.4	2330.2	2332.5	2328.9	2324.1	2322.8	2328.9	2326.4
12.5°	2268.8	2276.2	2293.4	2304.4	2298.3	2274.9	2247.9	2236.9	2233.2	2245.5	2246.7
15°	2271.3	2277.4	2292.2	2284.7	2251.7	2212.4	2197.6	2206.2	2213.6	2220.9	2222.2
17.5°	2277.4	2281.0	2284.7	2257.8	2211.1	2185.4	2180.5	2171.8	2149.7	2137.5	2136.2
20°	2288.4	2293.4	2287.3	2244.3	2202.5	2168.1	2109.2	2056.5	2006.2	1979.2	1968.2
22.5°	2326.4	2330.2	2311.7	2270.0	2206.2	2094.5	1975.5	1884.7	1807.4	1765.7	1749.8
25°	2401.3	2407.4	2381.7	2328.9	2162.0	1966.8	1798.9	1676.1	1579.3	1528.9	1515.4
27.5°	2532.6	2538.7	2510.6	2373.1	2059.0	1796.3	1592.7	1471.1	1387.8	1344.9	1338.7
30°	2729.0	2737.5	2711.7	2371.9	1901.8	1579.3	1391.4	1320.3	1272.5	1243.0	1241.7
32.5°	3001.4	3033.2	2927.7	2330.2	1708.0	1359.5	1239.3	1214.8	1191.5	1171.8	1171.8
35°	3347.3	3422.2	3141.2	2243.0	1494.5	1209.8	1154.7	1131.4	1101.9	1081.0	1078.6
37.5°	3760.8	3877.4	3293.4	2088.4	1310.4	1137.5	1103.1	1065.1	1018.4	978.0	968.1
40°	4329.0	4355.9	3368.3	1836.8	1173.0	1098.2	1055.2	1007.4	948.5	903.1	898.2
42.5°	4899.5	4811.2	3353.5	1566.9	1094.6	1062.6	1006.2	953.4	900.7	862.6	862.6
45°	5548.6	5208.7	3241.8	1295.7	1023.3	1022.1	960.7	910.4	869.9	841.8	835.7
47.5°	6169.6	5565.8	3049.2	1095.8	949.7	981.5	931.3	890.8	854.0	827.0	822.0
50°	6922.8	5979.3	2844.2	955.9	878.6	946.0	919.1	898.2	862.6	815.9	811.0
52.5°	7671.4	6462.8	2686.0	850.4	815.9	917.8	926.4	928.8	895.7	804.9	798.8
55°	8475.1	6979.4	2519.1	768.1	764.5	904.3	943.6	941.2	925.2	807.4	797.6
57.5°	9239.6	7498.5	2270.0	710.4	724.0	890.8	947.3	908.1	879.7	819.7	803.7
60°	9872.7	7927.9	1904.4	670.0	689.7	863.8	922.7	863.8	815.9	817.3	802.5
62.5°	10180.7	8048.1	1456.5	623.4	661.3	819.7	887.1	830.7	786.5	822.0	813.6
65°	9946.3	7705.7	1038.1	580.3	627.0	768.1	866.3	802.5	771.8	846.6	836.8
67.5°	9104.6	6773.2	753.5	542.4	594.0	715.3	827.0	776.8	757.0	865.0	842.9
69°	8210.1	5848.1	652.9	520.3	570.6	687.1	801.3	763.1	746.0	839.3	807.4
70°	7466.6	5135.1	602.4	506.8	550.8	671.2	781.6	754.7	735.0	808.6	770.6
72.5°	5353.6	3319.1	506.8	466.3	499.5	635.6	738.7	722.8	693.2	730.1	705.6
75°	3234.5	1732.6	430.7	424.6	445.4	586.5	688.4	668.7	639.2	643.0	630.7
77.5°	1485.9	800.0	360.8	375.6	389.0	525.2	627.0	605.0	578.0	568.1	569.4
80°	651.5	467.5	301.9	320.2	327.7	472.4	560.7	536.3	506.8	559.5	519.0
82.5°	352.2	271.2	235.6	247.9	268.7	411.1	487.2	455.3	426.9	496.9	401.2
85°	142.4	138.6	159.5	171.7	186.5	295.8	407.4	374.2	339.9	304.3	296.9
87.5°	61.4	66.2	78.5	83.5	99.4	184.1	273.5	239.3	240.5	206.2	202.4
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)