

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: P197226

Luminaire Tested: **NAV-AF-06-D-UNV-T2-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P197226
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-T2-8030
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 80 CRI, 3000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 28771 lumens
Efficiency: N/A
Efficacy: 86.4 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 - G4

Input Watts (W): 333
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

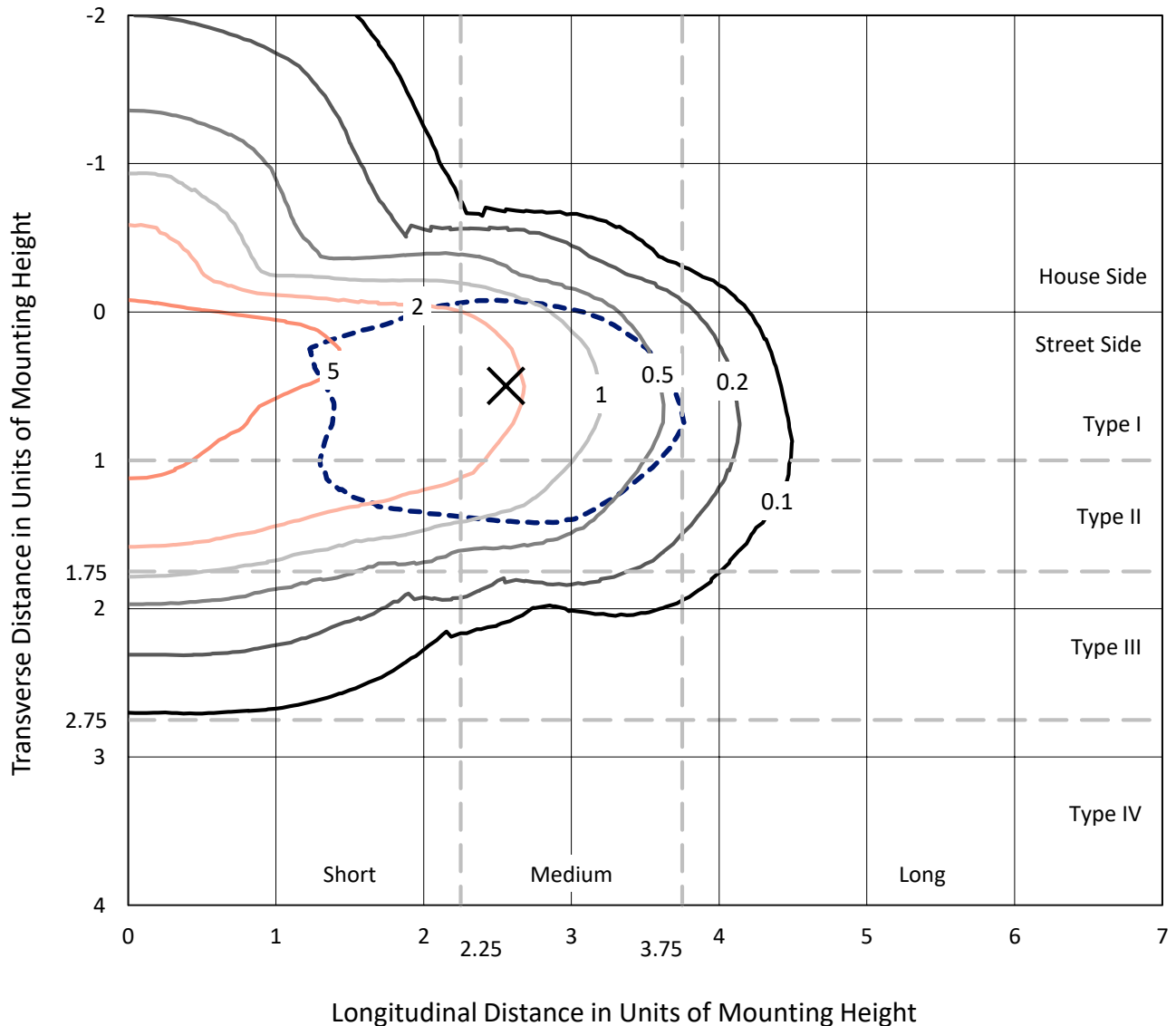


REPORT NUMBER: P197226

CATALOG NUMBER: NAV-AF-06-D-UNV-T2-8030

Iso-Footcandle Lines of Horizontal Illumination

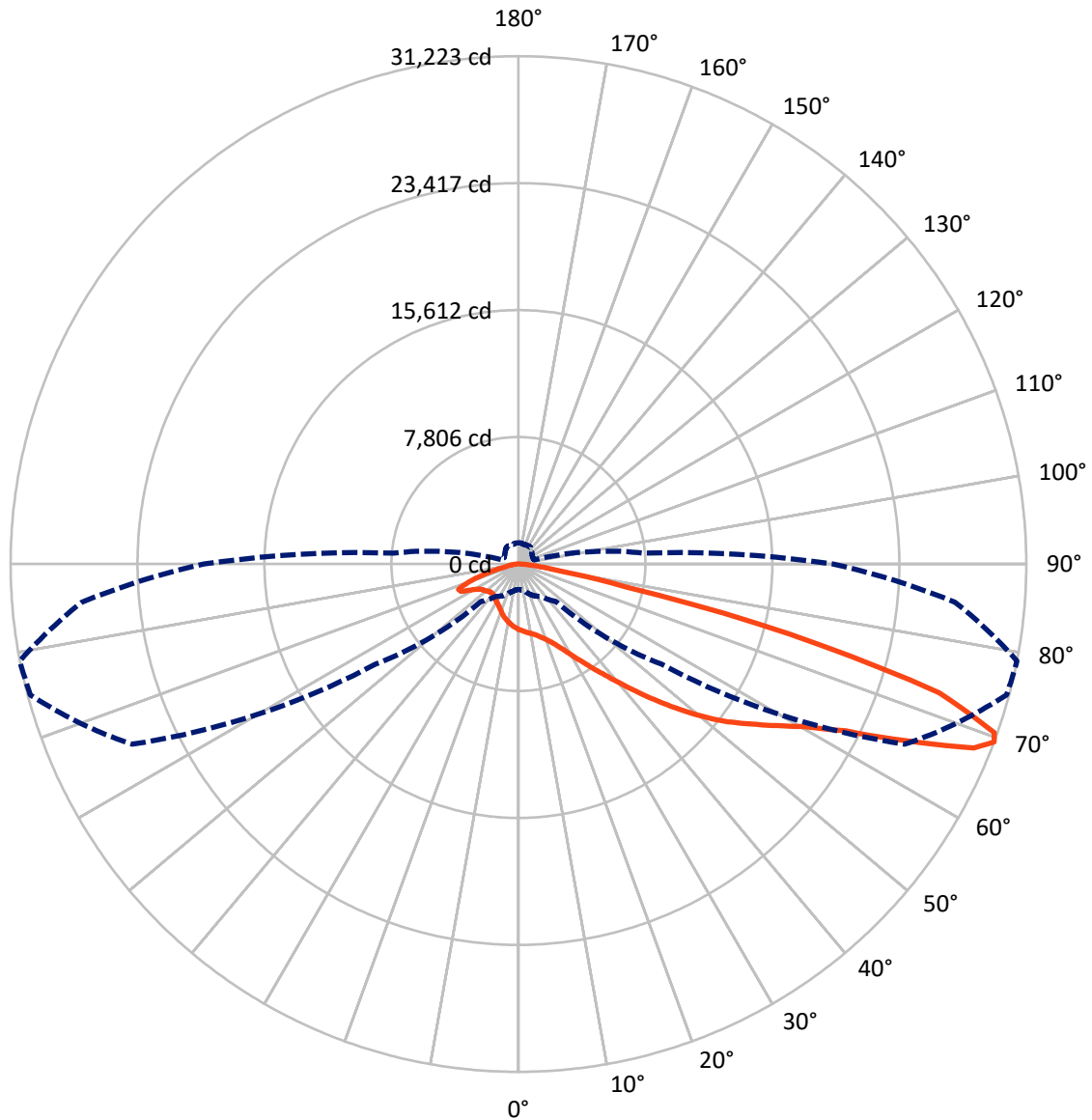
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.8 fc
 Type II - Medium - Full Cutoff

REPORT NUMBER: P197226
CATALOG NUMBER: NAV-AF-06-D-UNV-T2-8030

Luminous Intensity Polar Plot



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

REPORT NUMBER: P197226

CATALOG NUMBER: NAV-AF-06-D-UNV-T2-8030

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5412.3	0.0	5412.3
	% Fixture	18.8	0.0	18.8
Street Side	Lumens	23358.7	0.0	23358.7
	% Fixture	81.2	0.0	81.2
Total	Lumens	28771.0	0.0	28771.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	374.3	1.3
10°-20°	1073.1	3.7
20°-30°	1773.2	6.2
30°-40°	2871.3	10.0
40°-50°	4586.8	15.9
50°-60°	6568.8	22.8
60°-70°	7318.7	25.4
70°-80°	3661.4	12.7
80°-90°	543.4	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°	28771.0	100.0
0°-180°	28771.0	100.0



REPORT NUMBER: P197226

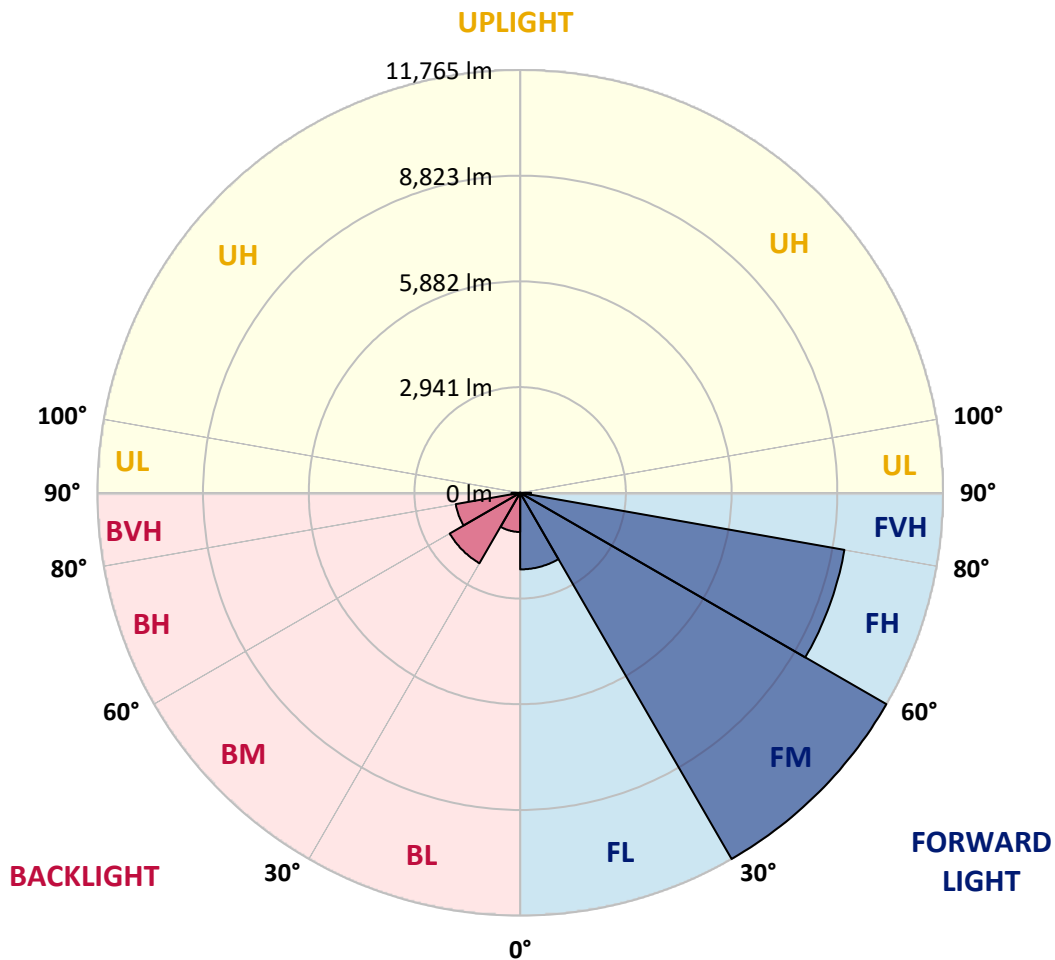
CATALOG NUMBER: NAV-AF-06-D-UNV-T2-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2130.2	7.4			
FM (30°-60°)	11764.5	40.9			
FH (60°-80°)	9160.3	31.8			G4/12000
FVH (80°-90°)	303.6	1.1			G3/500
BL (0°-30°)	1090.3	3.8	B3/2500		
BM (30°-60°)	2262.5	7.9	B2/2500		
BH (60°-80°)	1819.8	6.3	B3/2500		G3/2500
BVH (80°-90°)	239.8	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-G4

Type II Medium





REPORT NUMBER: P197226

CATALOG NUMBER: NAV-AF-06-D-UNV-T2-8030

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
0°	4037.5	4037.5	4037.5	4037.5	4037.5	4037.5	4037.5	4037.5	4037.5	4037.5	4037.5
2.5°	4432.8	4423.3	4421.5	4393.2	4378.2	4346.2	4270.9	4193.7	4122.2	4084.5	4045.0
5°	4803.6	4784.7	4775.3	4728.3	4686.9	4615.3	4496.8	4374.4	4246.4	4180.5	4101.5
7.5°	5027.6	5029.4	5029.4	4991.8	4950.4	4863.8	4713.2	4545.7	4355.6	4269.0	4144.8
10°	5046.4	5048.3	5076.5	5085.9	5095.3	5050.1	4910.9	4700.0	4455.3	4342.4	4180.5
12.5°	4860.0	4873.2	4920.3	4988.0	5084.0	5133.0	5072.7	4865.7	4583.3	4445.9	4248.3
15°	4609.7	4622.9	4683.1	4786.6	4941.0	5104.7	5189.4	5055.8	4750.9	4589.0	4348.1
17.5°	4487.3	4502.4	4543.8	4626.6	4777.2	4997.4	5251.5	5259.1	4948.5	4762.2	4466.6
20°	4429.0	4440.3	4493.0	4560.8	4675.6	4886.4	5257.2	5473.7	5183.8	4967.3	4611.6
22.5°	4562.6	4566.4	4592.8	4630.4	4707.6	4869.4	5253.4	5695.8	5477.4	5225.2	4797.9
25°	4954.1	4929.7	4910.9	4863.8	4882.6	4997.4	5313.7	5932.9	5853.9	5564.0	5046.4
27.5°	5417.2	5413.4	5364.5	5255.3	5185.7	5259.1	5485.0	6198.3	6315.0	5995.0	5372.0
30°	5932.9	5934.8	5884.0	5750.4	5609.2	5616.7	5757.9	6505.1	6866.5	6514.6	5772.9
32.5°	6473.1	6507.0	6412.9	6279.3	6108.0	6053.4	6149.4	6876.0	7504.6	7128.2	6237.9
35°	7118.8	7124.4	7020.9	6825.1	6653.8	6567.3	6655.7	7339.0	8240.6	7849.1	6804.4
37.5°	7788.9	7792.6	7685.3	7435.0	7218.5	7162.1	7259.9	7901.8	9019.9	8669.8	7470.8
40°	8336.6	8376.1	8291.4	8056.1	7837.8	7803.9	7945.1	8575.6	10015.6	9641.0	8263.2
42.5°	8957.7	9002.9	8901.3	8656.6	8483.4	8472.1	8692.3	9343.6	11005.7	10764.7	9161.0
45°	9658.0	9722.0	9580.8	9306.0	9159.2	9407.6	9420.8	10194.4	12146.3	12022.1	10171.8
47.5°	10422.2	10474.9	10360.0	10064.5	9904.5	10264.0	10134.2	11114.8	13379.2	13369.8	11265.4
50°	11011.3	11069.7	11081.0	10951.1	10783.6	10828.7	10917.2	12082.3	14608.3	14755.2	12396.7
52.5°	10904.0	10960.5	11214.6	11555.3	11824.5	11707.8	11815.0	13110.0	15796.1	16106.6	13471.4
55°	10038.2	10068.3	10544.5	11353.9	12500.2	13057.3	13064.9	14228.1	16925.4	17360.2	14491.6
57.5°	8477.8	8481.5	9100.8	10294.2	12106.8	13932.6	15037.5	15632.3	18103.7	18745.6	15756.5
60°	5998.8	6013.9	6734.8	8295.2	10697.0	13827.2	17158.8	18145.1	19468.4	20302.2	17386.6
62.5°	3561.3	3595.1	4139.1	5390.8	7945.1	12472.0	18412.4	22615.5	21478.6	22585.4	19995.4
65°	2317.1	2345.3	2670.9	3299.6	4694.4	9074.4	18000.2	26944.8	25282.7	26176.8	23744.9
67.5°	1784.4	1807.0	2063.0	2443.2	2879.9	4905.2	14391.9	27852.0	29913.1	30191.7	26909.0
69°	1567.9	1586.8	1775.0	2140.1	2424.4	3246.9	10725.2	26205.0	31070.7	31223.2	26948.5
70°	1453.1	1468.2	1645.1	1961.3	2226.7	2591.9	8208.6	24292.6	30647.2	31036.8	26171.2
72.5°	1197.1	1210.3	1336.4	1579.2	1820.2	1846.5	3636.6	17738.6	25806.0	27052.1	22146.9
75°	999.5	1007.0	1089.8	1266.8	1473.8	1470.1	1857.8	10047.6	15747.1	17232.2	13674.7
77.5°	833.8	839.5	894.1	1003.3	1163.2	1157.6	1308.2	4336.8	6953.1	6708.4	4707.6
80°	736.0	739.7	768.0	796.2	897.8	892.2	969.4	1991.4	2829.1	2614.5	1780.6
82.5°	559.0	566.6	709.6	722.8	696.4	672.0	675.7	1159.5	1449.4	1319.5	956.2
85°	316.2	318.1	455.5	532.7	606.1	455.5	438.6	598.6	715.3	626.8	417.9
87.5°	141.2	146.8	218.3	252.2	327.5	267.3	250.3	254.1	308.7	256.0	165.6
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: P197226

CATALOG NUMBER: NAV-AF-06-D-UNV-T2-8030

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4037.5	4037.5	4037.5	4037.5	4037.5	4037.5	4037.5	4037.5	4037.5	4037.5	4037.5
2.5°	4007.4	3975.4	3900.1	3822.9	3745.7	3696.8	3646.0	3598.9	3580.1	3578.2	3542.4
5°	4024.3	3949.0	3777.7	3589.5	3410.7	3271.4	3154.7	3079.4	3006.0	2992.8	2960.8
7.5°	4030.0	3907.6	3629.0	3327.9	3054.9	2862.9	2746.2	2695.4	2659.7	2650.2	2638.9
10°	4028.1	3854.9	3463.4	3051.2	2740.6	2595.7	2552.4	2563.7	2578.7	2586.2	2586.2
12.5°	4058.2	3830.4	3297.7	2791.4	2537.3	2467.7	2501.5	2559.9	2605.1	2623.9	2627.7
15°	4112.8	3815.4	3115.2	2565.5	2394.3	2411.2	2494.0	2578.7	2642.7	2670.9	2678.5
17.5°	4180.5	3794.7	2904.4	2379.2	2311.4	2369.8	2477.1	2584.4	2661.5	2697.3	2702.9
20°	4255.8	3764.6	2686.0	2239.9	2238.0	2311.4	2418.7	2539.2	2622.0	2661.5	2659.7
22.5°	4357.5	3736.3	2482.7	2138.3	2157.1	2224.8	2313.3	2422.5	2499.7	2535.4	2527.9
25°	4493.0	3710.0	2300.1	2047.9	2064.9	2110.0	2172.1	2255.0	2309.6	2328.4	2315.2
27.5°	4675.6	3689.3	2157.1	1965.1	1963.2	1983.9	2021.6	2066.7	2093.1	2087.4	2066.7
30°	4899.6	3668.6	2051.7	1891.7	1865.3	1863.5	1880.4	1906.7	1923.7	1889.8	1872.9
32.5°	5149.9	3632.8	1957.6	1827.7	1780.6	1763.7	1771.2	1807.0	1876.6	1842.7	1829.6
35°	5445.4	3591.4	1863.5	1758.0	1722.3	1690.3	1695.9	1773.1	1983.9	1959.4	1946.3
37.5°	5801.2	3553.7	1776.9	1682.8	1680.9	1641.3	1637.6	1729.8	2012.2	1959.4	1948.2
40°	6228.4	3546.2	1699.7	1599.9	1630.1	1615.0	1601.8	1658.3	1855.9	1748.6	1727.9
42.5°	6744.2	3580.1	1643.2	1520.9	1571.7	1607.5	1583.0	1596.2	1677.1	1581.1	1564.2
45°	7346.5	3672.3	1601.8	1451.2	1509.6	1601.8	1573.6	1562.3	1575.5	1522.8	1511.5
47.5°	8048.6	3836.1	1573.6	1392.9	1451.2	1586.8	1569.8	1547.2	1541.6	1511.5	1503.9
50°	8799.6	4056.3	1554.8	1340.2	1398.5	1560.4	1567.9	1535.9	1526.5	1513.3	1509.6
52.5°	9545.0	4295.4	1532.2	1295.0	1355.2	1528.4	1569.8	1524.6	1511.5	1503.9	1500.2
55°	10286.6	4543.8	1490.8	1255.5	1323.2	1490.8	1567.9	1509.6	1494.5	1494.5	1494.5
57.5°	11248.5	4922.1	1436.2	1223.5	1281.8	1441.8	1543.5	1492.6	1471.9	1473.8	1475.7
60°	12637.6	5556.5	1375.9	1187.7	1227.2	1385.4	1505.8	1462.5	1438.1	1445.6	1447.5
62.5°	14958.4	6665.1	1293.1	1136.9	1170.8	1325.1	1456.9	1421.1	1398.5	1411.7	1413.6
65°	18052.9	8007.2	1184.0	1072.9	1112.4	1257.4	1394.8	1372.2	1347.7	1379.7	1377.8
67.5°	19940.8	8400.6	1069.1	1005.1	1056.0	1185.8	1317.6	1308.2	1291.2	1347.7	1343.9
69°	19321.6	7689.1	1003.3	961.8	1016.4	1136.9	1268.7	1264.9	1251.7	1306.3	1302.5
70°	18359.7	7024.7	961.8	933.6	995.7	1106.8	1236.7	1236.7	1223.5	1270.5	1261.1
72.5°	14747.6	5210.1	865.8	862.1	924.2	1024.0	1150.1	1159.5	1152.0	1168.9	1159.5
75°	8658.5	3139.6	771.7	783.0	837.6	935.5	1054.1	1061.6	1054.1	1052.2	1054.1
77.5°	3002.2	1407.9	681.4	698.3	745.4	845.1	948.7	963.7	952.4	939.3	943.0
80°	1174.5	818.8	583.5	608.0	647.5	743.5	843.3	852.7	835.7	833.8	818.8
82.5°	705.9	498.8	453.6	493.2	542.1	645.6	728.4	724.7	711.5	788.7	690.8
85°	306.8	276.7	331.3	370.8	395.3	483.7	615.5	598.6	566.6	498.8	487.5
87.5°	124.2	143.1	182.6	220.2	237.2	312.5	421.6	406.6	412.2	338.8	336.9
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)