

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: P270258

Luminaire Tested: **NAV-AF-01-D-UNV-AFL-7027-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270258
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24160)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-AF-01-D-UNV-AFL-7027-1200
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2700K, 1200mA LIGHTSQUARE WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5965.4 lumens
Efficiency: N/A
Efficacy: 89.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B1 - U0 - G1

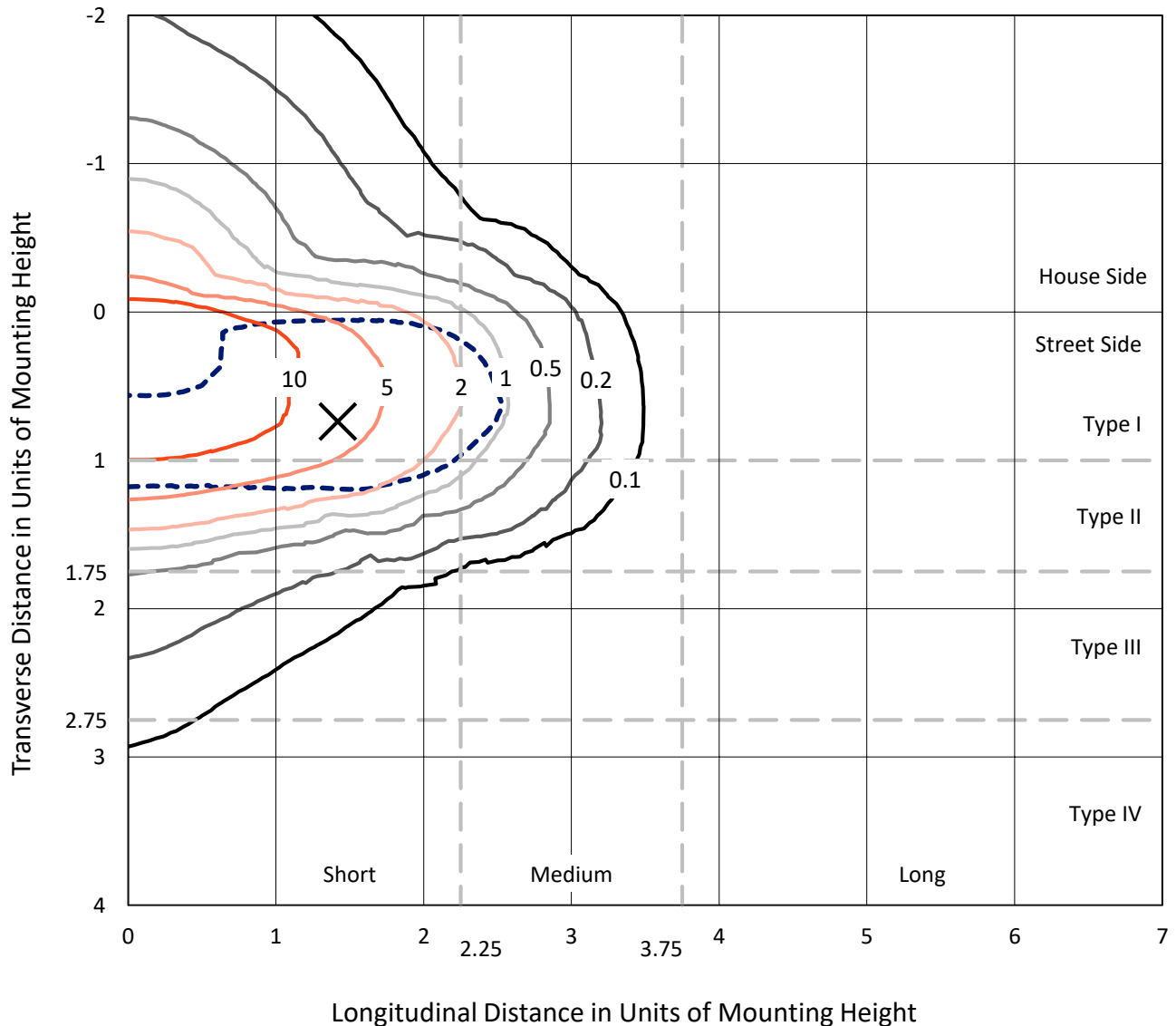
Input Watts (W): 67
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P270258
 CATALOG NUMBER: NAV-AF-01-D-UNV-AFL-7027-1200

Iso-Footcandle Lines of Horizontal Illumination

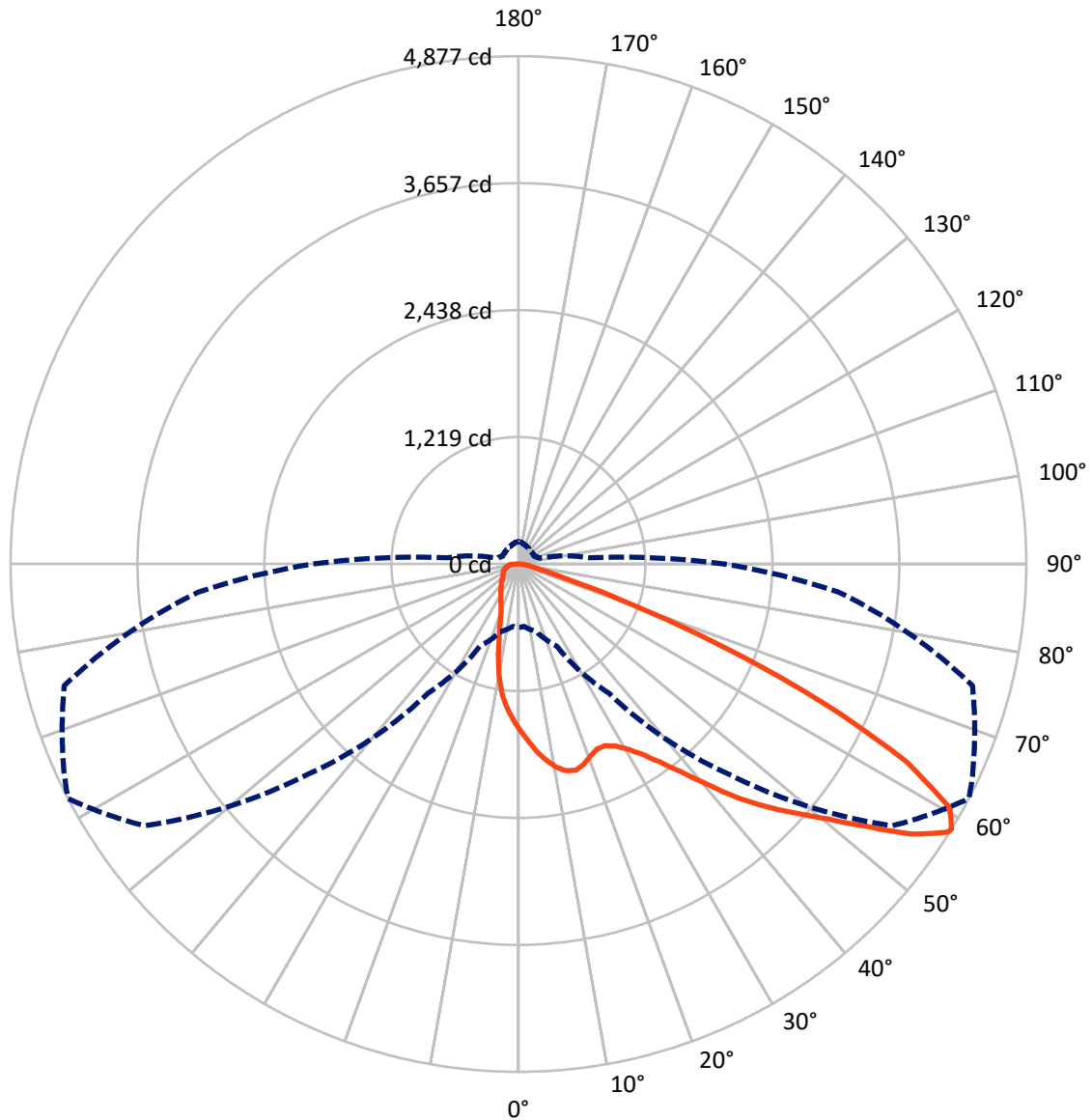
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 18.6 fc
 Type II - Short - Full Cutoff

REPORT NUMBER: P270258
CATALOG NUMBER: NAV-AF-01-D-UNV-AFL-7027-1200

Luminous Intensity Polar Plot



— Vertical Plane Through 62.5-Deg Lateral - - - Horizontal Cone Through 58-Deg Vertical

REPORT NUMBER: P270258

CATALOG NUMBER: NAV-AF-01-D-UNV-AFL-7027-1200

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	915.9	0.0	915.9
	% Fixture	15.4	0.0	15.4
Street Side	Lumens	5049.5	0.0	5049.5
	% Fixture	84.6	0.0	84.6
Total	Lumens	5965.4	0.0	5965.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.4	2.4
10°-20°	359.3	6.0
20°-30°	582.3	9.8
30°-40°	929.7	15.6
40°-50°	1352.2	22.7
50°-60°	1415.0	23.7
60°-70°	862.6	14.5
70°-80°	241.2	4.0
80°-90°	80.9	1.4
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°	5965.4	100.0
0°-180°	5965.4	100.0

Coefficient of Utilization



REPORT NUMBER: P270258

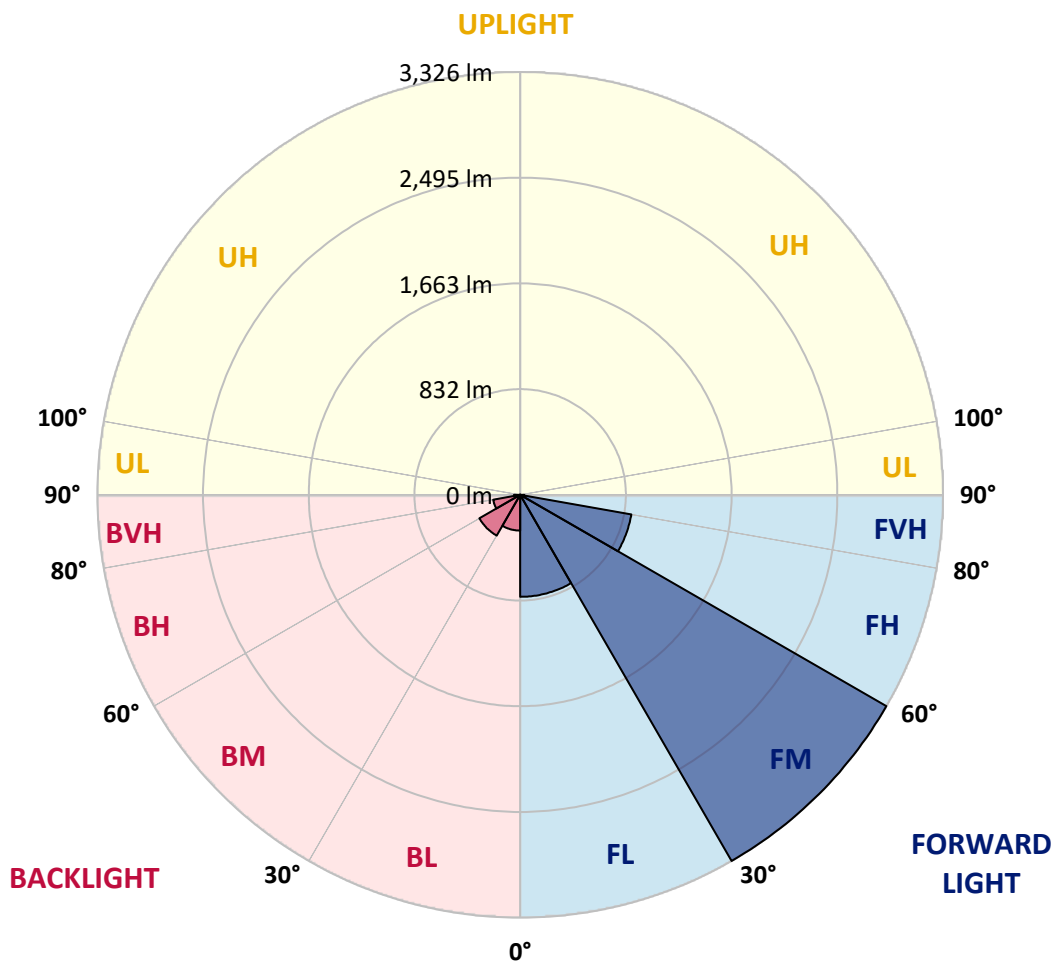
CATALOG NUMBER: NAV-AF-01-D-UNV-AFL-7027-1200

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	802.4	13.5			
FM	(30°-60°)	3326.4	55.8			
FH	(60°-80°)	888.2	14.9			G1/1800
FVH	(80°-90°)	32.5	0.5			G1/100
BL	(0°-30°)	281.6	4.7	B1/500		
BM	(30°-60°)	370.4	6.2	B1/1000		
BH	(60°-80°)	215.6	3.6	B1/500		G1/500
BVH	(80°-90°)	48.3	0.8			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type II Short





REPORT NUMBER: P270258

CATALOG NUMBER: NAV-AF-01-D-UNV-AFL-7027-1200

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	62.5°	65°	75°	85°
0°	1592.8	1592.8	1592.8	1592.8	1592.8	1592.8	1592.8	1592.8	1592.8	1592.8	1592.8
2.5°	1807.8	1806.8	1791.5	1781.3	1769.4	1741.9	1714.2	1693.8	1683.3	1643.4	1604.6
5°	1957.3	1952.8	1944.3	1933.5	1917.8	1883.1	1839.5	1801.9	1787.0	1716.1	1644.9
7.5°	1878.4	1885.5	1912.0	1941.6	1972.9	1975.3	1944.3	1899.6	1883.1	1788.4	1684.1
10°	1659.4	1656.5	1689.7	1747.8	1851.0	1953.3	2004.4	1982.3	1965.2	1857.1	1723.2
12.5°	1593.1	1592.3	1597.9	1612.8	1677.8	1817.9	1989.0	2036.7	2030.8	1929.7	1765.0
15°	1613.3	1614.0	1613.6	1615.5	1633.4	1700.1	1903.7	2055.1	2073.6	2001.8	1807.5
17.5°	1677.8	1675.1	1667.0	1658.0	1660.5	1684.4	1811.6	2023.7	2079.7	2065.8	1843.3
20°	1777.2	1777.2	1755.3	1730.3	1713.8	1719.1	1773.2	1970.1	2052.1	2120.3	1870.1
22.5°	1902.3	1904.0	1871.6	1826.2	1788.9	1774.7	1795.3	1930.2	2018.5	2170.7	1893.9
25°	2057.3	2056.8	2009.6	1944.3	1885.5	1851.4	1851.0	1932.1	2008.2	2229.6	1919.0
27.5°	2249.3	2231.7	2176.7	2083.8	2000.6	1948.9	1925.2	1979.0	2030.1	2301.8	1952.6
30°	2465.8	2448.1	2375.7	2256.4	2143.7	2068.1	2029.4	2060.3	2097.2	2394.0	2003.2
32.5°	2680.4	2684.3	2599.3	2464.8	2320.1	2213.6	2156.1	2175.1	2200.8	2506.5	2071.9
35°	2994.2	2993.8	2882.8	2714.6	2542.7	2395.2	2322.4	2332.4	2356.0	2665.5	2168.0
37.5°	3228.4	3224.6	3153.1	3004.3	2810.7	2633.7	2528.5	2530.0	2550.2	2864.9	2294.8
40°	3252.3	3251.4	3251.1	3229.9	3097.4	2930.5	2798.8	2771.6	2779.8	3076.7	2429.3
42.5°	3069.9	3097.0	3175.4	3295.4	3332.4	3244.8	3120.3	3059.4	3041.5	3319.6	2571.8
45°	2810.0	2823.8	2961.1	3230.9	3450.6	3540.0	3446.4	3318.2	3287.6	3556.1	2687.8
47.5°	2689.3	2683.2	2762.6	3056.8	3439.0	3774.9	3781.7	3571.3	3519.5	3759.9	2786.5
50°	2430.2	2422.3	2522.6	2800.7	3312.9	3891.5	4125.7	3847.3	3751.4	3953.9	2876.1
52.5°	1913.7	1906.4	2040.9	2399.2	3031.2	3848.0	4415.8	4185.8	4022.5	4140.6	2959.6
55°	1245.3	1245.9	1374.2	1743.7	2452.8	3593.7	4551.9	4576.9	4393.8	4327.4	3027.0
57.5°	685.6	679.3	770.7	997.7	1687.5	3016.1	4438.5	4858.8	4763.4	4487.8	3075.8
58°	609.6	602.1	672.7	868.3	1512.9	2853.2	4381.6	4876.5	4810.7	4514.3	3083.0
60°	434.3	421.7	410.9	489.5	871.6	2057.3	4001.2	4760.7	4824.4	4567.3	3076.2
62.5°	366.1	351.5	312.8	309.8	410.4	1006.3	3164.2	4180.9	4359.6	4445.3	2968.1
65°	340.0	325.5	274.4	256.1	278.6	434.3	1956.6	3228.4	3467.0	4021.4	2696.0
67.5°	321.4	304.3	249.4	225.6	230.1	259.9	830.4	2111.3	2388.0	3136.0	2162.8
70°	304.6	285.7	229.6	202.1	198.3	197.5	324.4	1102.5	1369.0	2052.1	1448.8
72.5°	285.7	266.9	212.1	182.6	174.5	160.3	195.0	455.6	624.5	1005.9	663.9
75°	258.1	242.7	192.7	166.6	152.5	130.2	143.9	218.5	269.2	385.2	308.3
77.5°	227.0	214.8	173.1	153.3	134.2	106.3	110.0	148.0	166.2	217.0	178.7
80°	160.6	165.2	150.9	134.9	118.1	85.8	84.6	108.4	119.4	145.7	120.1
82.5°	110.8	114.1	123.1	106.5	95.4	66.7	62.3	75.3	80.8	87.9	58.2
85°	79.1	76.8	85.3	76.4	70.1	42.5	39.9	47.7	51.1	53.7	27.9
87.5°	48.1	47.7	49.1	39.5	36.6	21.6	19.8	22.7	24.3	23.4	13.5
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: P270258

CATALOG NUMBER: NAV-AF-01-D-UNV-AFL-7027-1200

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1592.8	1592.8	1592.8	1592.8	1592.8	1592.8	1592.8	1592.8	1592.8	1592.8	1592.8
2.5°	1590.1	1571.9	1532.0	1499.9	1465.2	1438.7	1412.2	1397.4	1381.0	1371.6	1370.5
5°	1607.6	1570.3	1485.3	1406.3	1325.0	1252.0	1180.5	1127.5	1084.2	1059.6	1058.2
7.5°	1627.0	1568.5	1437.3	1300.4	1155.8	1011.9	884.7	794.9	737.1	710.2	708.4
10°	1641.9	1560.6	1378.7	1165.8	936.6	746.4	630.8	577.9	560.4	556.0	555.2
12.5°	1659.9	1555.1	1304.9	993.3	715.8	568.2	533.1	529.8	533.6	535.7	536.1
15°	1676.6	1544.2	1205.3	801.9	560.4	507.8	508.5	515.6	523.2	526.4	526.9
17.5°	1684.4	1517.7	1074.6	632.0	490.3	480.6	489.1	498.5	505.1	507.8	507.8
20°	1684.4	1475.2	922.7	511.9	453.7	455.6	466.0	473.0	474.7	472.4	471.3
22.5°	1677.3	1422.7	775.1	446.6	423.9	430.9	439.2	434.3	416.9	403.3	400.9
25°	1671.0	1360.5	633.0	406.8	397.8	407.1	403.8	370.6	343.7	329.9	327.7
27.5°	1660.5	1285.1	514.5	374.0	372.4	380.0	346.7	314.6	301.2	293.7	292.3
30°	1658.0	1203.5	430.6	344.9	347.5	337.0	299.0	288.5	285.7	281.4	279.6
32.5°	1666.5	1121.9	378.0	321.1	323.6	289.3	274.8	276.3	275.9	270.7	268.9
35°	1690.0	1042.5	344.5	299.3	291.9	259.2	261.0	265.4	265.4	259.2	256.8
37.5°	1731.0	968.6	323.2	281.1	255.4	243.5	248.3	254.3	254.3	249.8	247.9
40°	1774.7	896.7	307.2	266.5	232.3	232.7	237.5	242.0	243.8	244.6	243.1
42.5°	1814.1	822.0	290.1	250.8	221.8	224.4	226.7	230.1	238.0	243.1	242.4
45°	1837.4	747.2	271.4	231.6	214.8	215.9	215.1	221.2	230.4	238.2	238.2
47.5°	1858.6	685.6	256.1	212.1	207.7	207.7	205.4	211.5	219.9	229.2	230.1
50°	1878.6	645.7	245.3	197.2	198.7	197.5	196.9	202.5	213.9	225.1	227.0
52.5°	1899.1	632.3	235.6	186.4	189.5	187.9	188.6	196.5	209.6	221.2	223.0
55°	1927.9	640.9	225.6	178.9	180.5	180.1	183.1	192.0	203.6	215.1	215.9
57.5°	1963.3	672.2	217.0	173.4	171.8	174.1	178.9	187.6	198.7	212.4	213.6
58°	1970.4	679.7	215.6	171.8	170.0	173.4	178.3	186.4	197.9	212.4	213.6
60°	1981.2	706.2	211.8	168.9	163.8	169.6	175.6	183.9	196.5	214.3	216.6
62.5°	1929.0	711.4	210.7	165.6	156.9	164.4	171.4	180.7	195.0	220.8	225.6
65°	1748.2	657.6	202.7	160.0	151.4	160.3	167.8	178.7	199.5	239.8	242.0
67.5°	1403.3	546.2	183.9	151.4	145.0	155.4	164.7	178.7	201.3	242.7	244.2
70°	964.9	410.4	160.0	142.0	137.6	149.5	163.8	182.6	195.0	229.6	225.1
72.5°	504.0	285.7	140.1	131.2	128.6	144.3	174.5	178.7	187.6	214.3	209.9
75°	254.0	194.3	123.3	118.9	118.5	142.4	195.3	171.8	179.8	201.7	211.5
77.5°	149.8	152.2	110.0	107.3	109.2	139.1	195.7	165.2	170.8	185.7	196.1
80°	102.5	125.7	99.5	98.9	100.3	127.9	180.5	156.9	160.3	175.6	186.8
82.5°	57.9	69.3	87.2	92.0	91.4	104.7	155.9	142.8	147.0	207.7	219.5
85°	27.9	41.7	73.1	86.1	78.0	69.7	126.8	126.8	127.9	148.8	150.6
87.5°	10.4	18.7	49.1	68.2	54.4	41.7	86.1	89.8	99.9	102.9	105.1
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)