

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: P196483

Luminaire Tested: **NAV-AF-01-D-UNV-AFL-7030-1200-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196483
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24283)
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-7030-1200-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 1200mA LIGHTSQUARE WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5441.1 lumens
Efficiency: N/A
Efficacy: 81.2 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

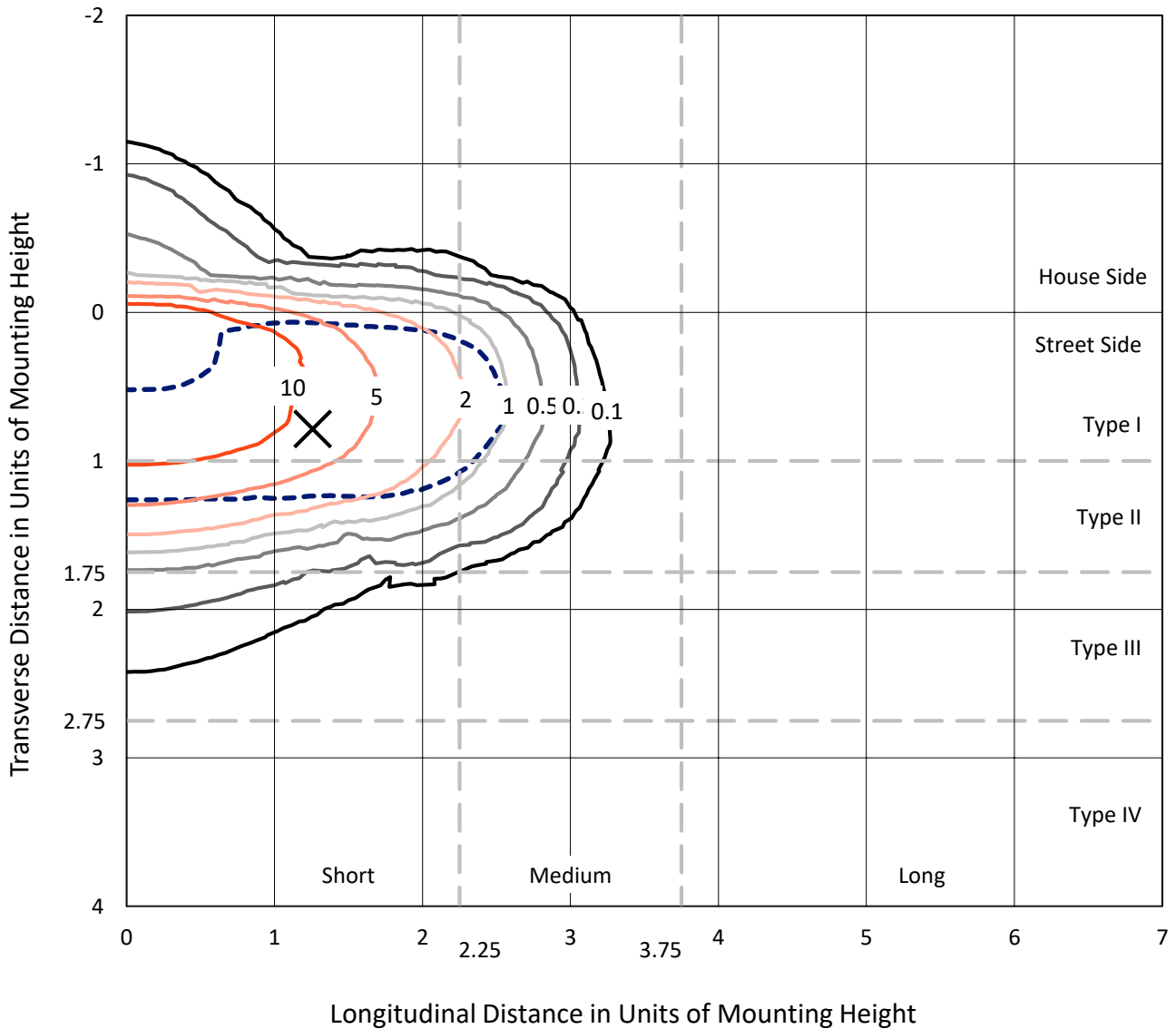


REPORT NUMBER: P196483

CATALOG NUMBER: NAV-AF-01-D-UNV-AFL-7030-1200-HSS

Iso-Footcandle Lines of Horizontal Illumination

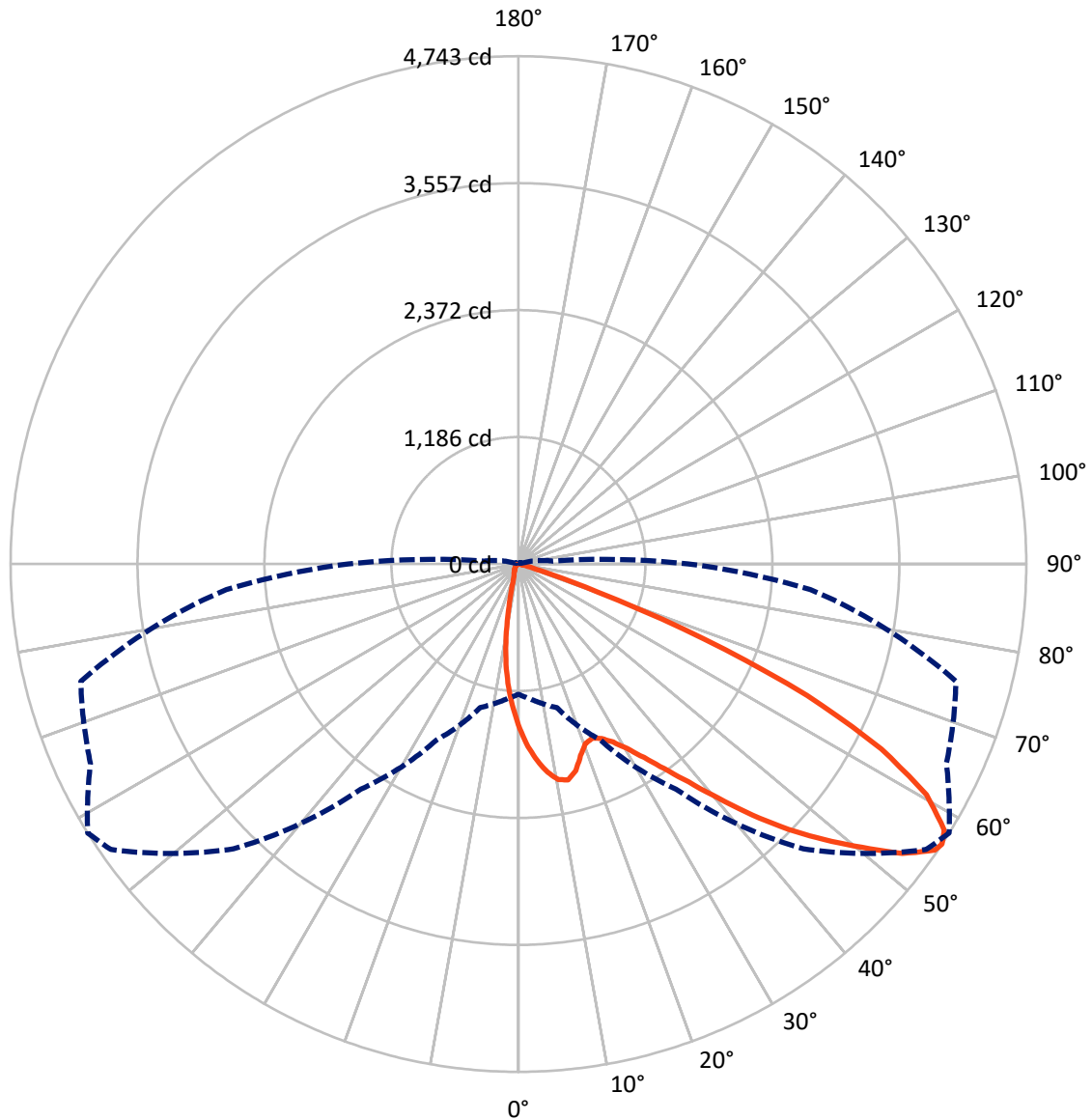
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 19.1 fc
 Type II - Short - Full Cutoff

REPORT NUMBER: P196483
CATALOG NUMBER: NAV-AF-01-D-UNV-AFL-7030-1200-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 56-Deg Vertical

REPORT NUMBER: P196483

CATALOG NUMBER: NAV-AF-01-D-UNV-AFL-7030-1200-HSS

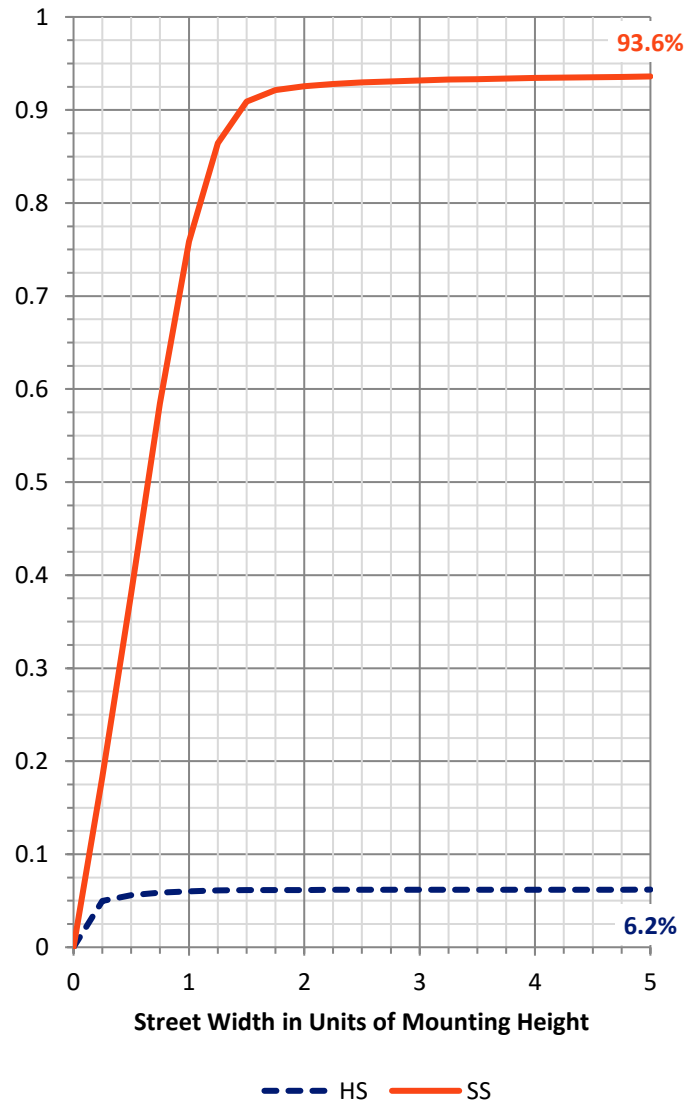
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	339.7	0.0	339.7
	% Fixture	6.2	0.0	6.2
Street Side	Lumens	5101.5	0.0	5101.5
	% Fixture	93.8	0.0	93.8
Total	Lumens	5441.1	0.0	5441.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.4	2.4
10°-20°	305.8	5.6
20°-30°	514.5	9.5
30°-40°	881.1	16.2
40°-50°	1329.6	24.4
50°-60°	1382.1	25.4
60°-70°	775.9	14.3
70°-80°	106.4	2.0
80°-90°	14.4	0.3
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°	5441.1	100.0
0°-180°	5441.1	100.0

Coefficient of Utilization



REPORT NUMBER: P196483

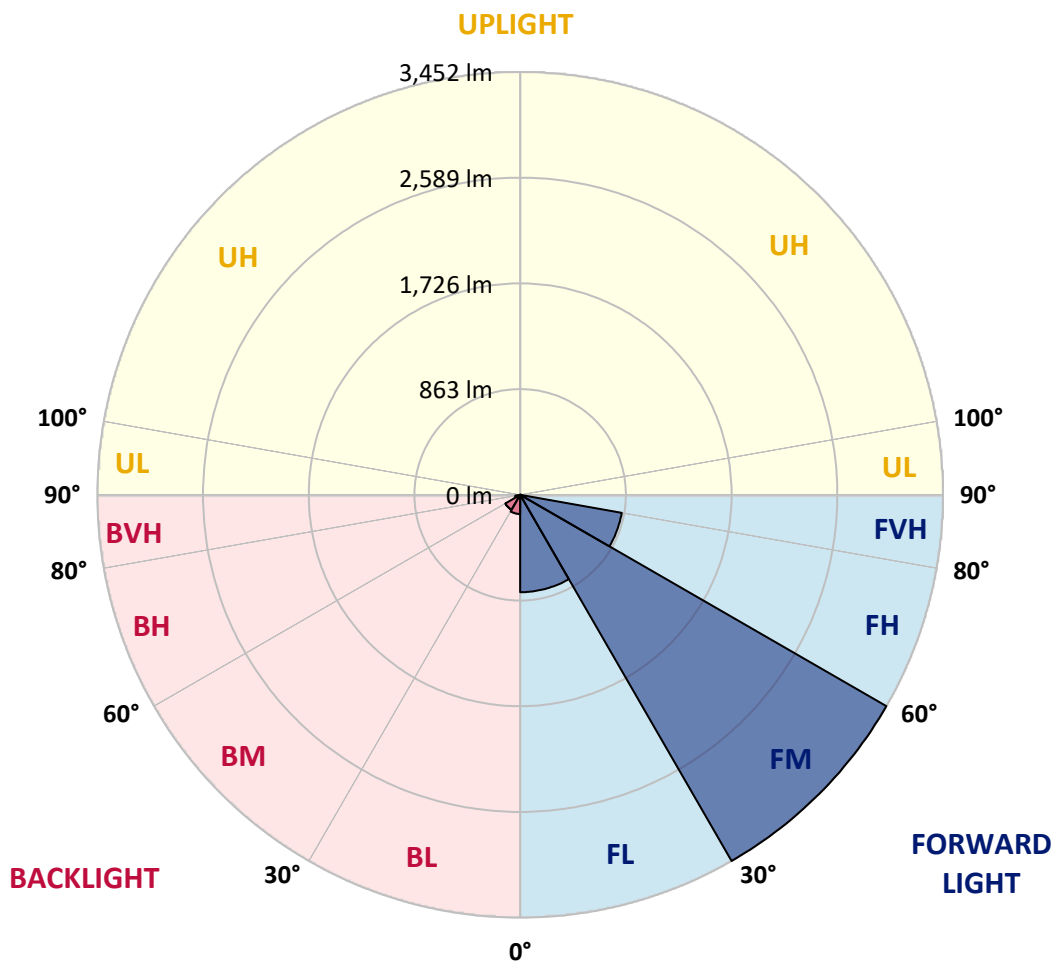
CATALOG NUMBER: NAV-AF-01-D-UNV-AFL-7030-1200-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	795.1	14.6			
FM	(30°-60°)	3452.1	63.4			
FH	(60°-80°)	841.9	15.5			G1/1800
FVH	(80°-90°)	12.4	0.2			G1/100
BL	(0°-30°)	156.7	2.9	B1/500		
BM	(30°-60°)	140.7	2.6	B0/220		
BH	(60°-80°)	40.3	0.7	B0/110		G0/110
BVH	(80°-90°)	2.0	0.0			G0/10
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: P196483

CATALOG NUMBER: NAV-AF-01-D-UNV-AFL-7030-1200-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	1540.5	1540.5	1540.5	1540.5	1540.5	1540.5	1540.5	1540.5	1540.5	1540.5	1540.5
2.5°	1853.6	1842.3	1830.7	1809.2	1789.2	1758.5	1716.1	1705.7	1672.5	1617.8	1566.7
5°	2013.3	2011.4	2003.4	1986.0	1964.4	1927.0	1879.3	1847.3	1795.9	1709.5	1611.1
7.5°	1918.7	1936.2	1964.8	2005.5	2032.9	2029.2	1992.7	1964.8	1913.7	1795.9	1654.7
10°	1617.4	1620.7	1660.0	1745.6	1880.9	2007.2	2054.8	2047.4	2000.5	1871.4	1692.9
12.5°	1511.0	1513.1	1522.3	1549.7	1637.7	1813.7	2029.9	2069.1	2065.2	1943.6	1733.6
15°	1519.4	1520.7	1523.1	1531.9	1556.7	1645.1	1903.8	2003.0	2106.7	2012.1	1773.4
17.5°	1585.0	1584.1	1576.3	1568.0	1575.8	1604.9	1775.1	1879.7	2098.1	2069.8	1806.3
20°	1712.8	1717.0	1690.5	1653.4	1634.4	1635.6	1711.5	1790.0	2049.0	2114.7	1830.7
22.5°	1892.6	1895.4	1851.8	1787.9	1731.9	1703.7	1724.8	1766.4	1992.7	2156.2	1850.7
25°	2107.2	2107.2	2046.2	1955.3	1868.5	1806.6	1788.3	1804.2	1971.0	2203.1	1870.5
27.5°	2338.8	2347.1	2267.4	2148.2	2033.8	1943.1	1886.0	1883.0	1987.7	2262.0	1893.0
30°	2590.9	2598.3	2503.6	2358.0	2222.3	2106.4	2018.3	1999.2	2051.2	2341.3	1925.8
32.5°	2841.5	2847.8	2743.2	2594.6	2436.4	2300.2	2184.4	2154.1	2165.3	2457.1	1974.0
35°	3160.4	3161.6	3029.2	2852.3	2683.4	2523.6	2377.1	2347.1	2334.7	2603.3	2043.2
37.5°	3414.1	3404.1	3320.2	3152.9	2959.1	2792.1	2619.9	2580.8	2550.9	2808.7	2150.8
40°	3473.8	3473.8	3461.4	3411.1	3257.1	3096.4	2929.6	2871.5	2805.4	3050.7	2295.2
42.5°	3318.1	3328.0	3410.3	3519.5	3520.7	3417.7	3254.7	3205.6	3089.5	3326.4	2453.0
45°	2969.8	2972.7	3169.9	3464.6	3664.8	3723.7	3603.4	3535.6	3374.6	3612.8	2597.4
47.5°	2844.4	2853.7	2937.4	3297.8	3675.6	3971.6	3937.9	3845.0	3638.6	3874.5	2732.3
50°	2651.8	2663.0	2765.6	3052.0	3578.5	4130.5	4258.0	4158.3	3878.9	4092.3	2799.2
52.5°	2191.0	2208.4	2353.3	2727.0	3335.5	4137.2	4551.0	4491.3	4125.1	4209.0	2791.3
55°	1507.8	1520.7	1689.5	2128.8	2845.6	3934.2	4677.3	4718.4	4344.7	4235.1	2753.2
56°	1216.3	1264.4	1388.1	1813.7	2566.7	3761.5	4648.2	4743.3	4409.9	4230.9	2736.5
57.5°	804.1	813.2	948.2	1314.3	2061.0	3386.6	4517.0	4690.2	4493.8	4209.9	2724.5
60°	378.1	382.3	430.9	606.5	1115.4	2467.9	4090.6	4377.9	4524.5	4165.4	2724.1
62.5°	246.6	247.4	253.3	289.3	456.2	1344.2	3391.2	3804.6	4270.0	4160.4	2716.1
65°	203.0	205.1	198.0	202.5	238.7	506.9	2392.0	2966.1	3672.6	4043.3	2627.3
67.5°	178.9	179.3	169.8	164.4	174.9	222.6	1205.1	1870.9	2746.9	3435.6	2164.1
70°	163.2	162.7	152.0	139.6	139.9	147.8	392.7	777.2	1519.8	2040.0	1242.5
72.5°	144.9	145.8	139.6	122.1	116.3	104.6	147.8	209.7	517.3	655.1	327.6
75°	127.1	125.3	119.1	107.9	97.1	70.2	74.3	89.3	134.9	133.7	70.6
77.5°	96.2	94.6	97.6	92.1	75.9	48.9	40.7	46.6	61.0	57.0	28.6
80°	73.5	72.6	66.4	78.8	69.4	36.9	27.9	28.6	33.3	30.3	14.1
82.5°	53.1	52.8	50.3	48.6	44.0	27.0	21.2	22.4	24.9	21.2	10.4
85°	20.3	20.3	39.5	33.3	30.3	18.2	15.0	16.2	19.1	15.4	7.1
87.5°	3.3	3.3	26.6	22.0	13.6	9.2	9.5	10.4	11.3	9.2	5.4
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: P196483

CATALOG NUMBER: NAV-AF-01-D-UNV-AFL-7030-1200-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1540.5	1540.5	1540.5	1540.5	1540.5	1540.5	1540.5	1540.5	1540.5	1540.5	1540.5
2.5°	1536.4	1508.6	1447.5	1388.5	1337.2	1280.6	1252.0	1218.8	1206.3	1181.4	1184.0
5°	1552.1	1494.0	1371.5	1242.5	1124.2	1003.8	918.3	837.7	792.9	748.4	748.4
7.5°	1568.3	1479.5	1290.3	1083.9	884.7	678.3	532.2	415.0	349.9	306.4	305.2
10°	1579.6	1460.8	1197.7	900.0	606.1	349.5	210.9	166.1	149.9	142.8	142.4
12.5°	1594.1	1442.1	1092.1	683.3	336.6	166.1	131.5	124.5	121.6	119.9	119.9
15°	1606.5	1415.6	964.3	459.6	176.9	124.5	113.3	110.8	110.5	110.1	110.5
17.5°	1609.5	1377.8	811.1	269.0	128.3	108.7	103.8	101.7	101.7	101.3	101.3
20°	1602.9	1328.0	641.8	166.1	110.8	100.1	94.6	92.1	91.8	91.8	91.8
22.5°	1589.0	1264.4	474.5	125.7	100.8	92.1	85.1	82.6	82.6	83.0	83.5
25°	1572.1	1189.4	325.9	108.3	93.4	83.8	76.8	74.3	75.2	75.9	76.4
27.5°	1550.5	1099.7	213.4	93.9	83.5	75.6	69.4	67.6	69.4	71.0	71.8
30°	1529.0	1001.3	144.4	81.4	72.2	66.4	62.8	62.3	64.8	68.5	69.0
32.5°	1514.8	900.4	109.2	73.1	63.5	58.6	57.0	57.7	61.4	65.5	66.4
35°	1513.6	802.1	93.0	66.4	57.7	53.1	52.3	54.8	59.0	62.3	63.2
37.5°	1533.0	709.8	84.2	61.4	53.1	48.6	47.3	51.9	55.6	59.0	59.8
40°	1572.5	627.2	78.4	57.0	49.3	44.0	43.1	46.9	50.7	54.4	55.6
42.5°	1622.0	550.0	71.8	52.3	45.3	39.0	38.2	41.1	44.8	50.3	51.1
45°	1664.7	478.2	64.8	47.3	40.7	33.7	33.3	36.5	39.5	44.5	45.3
47.5°	1700.7	418.5	58.1	41.9	34.9	29.9	29.5	31.1	32.8	37.3	38.2
50°	1681.7	367.7	51.5	34.4	28.2	25.7	25.3	25.3	27.5	32.0	32.8
52.5°	1634.7	336.3	45.3	28.6	23.3	22.0	20.8	21.2	23.3	25.3	25.7
55°	1597.1	321.3	39.9	25.3	19.5	18.2	17.1	16.6	17.1	16.2	15.4
56°	1587.9	319.7	38.6	24.5	18.7	17.1	15.4	14.5	14.1	12.4	12.0
57.5°	1583.7	319.7	36.5	22.8	17.5	15.4	13.3	11.6	10.0	8.7	8.7
60°	1580.4	321.8	34.1	19.8	15.0	12.4	9.5	7.1	5.8	5.8	5.8
62.5°	1573.4	320.9	31.1	16.6	12.9	9.5	5.8	4.6	4.2	4.6	5.0
65°	1494.0	298.1	27.5	13.3	10.0	6.7	3.3	3.3	3.8	4.6	5.0
67.5°	1203.9	225.8	22.4	10.4	7.1	5.0	2.9	2.9	3.8	4.6	5.0
70°	661.3	119.1	19.1	7.4	5.4	4.2	2.9	2.5	3.8	4.6	5.0
72.5°	161.4	49.8	17.5	5.8	5.0	3.8	2.5	2.5	3.8	4.6	5.0
75°	39.9	37.3	14.1	4.6	4.2	3.3	2.5	2.5	3.8	4.6	5.0
77.5°	18.7	49.3	9.5	4.2	3.8	2.9	2.5	2.5	3.8	4.6	4.6
80°	11.3	37.3	5.8	3.8	3.3	2.9	2.5	2.5	3.8	4.6	5.0
82.5°	6.7	10.8	4.2	3.8	3.3	2.5	2.5	2.5	3.8	4.6	5.0
85°	5.8	5.4	4.2	3.8	3.3	2.9	2.5	2.5	4.2	5.0	5.0
87.5°	4.6	4.2	3.8	3.3	3.3	2.9	2.5	2.5	3.8	4.6	5.0
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)