

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: P197131

Luminaire Tested: **NAV-AF-01-D-UNV-SL4-8030-1200-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P197131
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24285)
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-SL4-8030-1200-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 3000K, 1200mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4455 lumens
Efficiency: N/A
Efficacy: 66.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B0 - U0 - G2

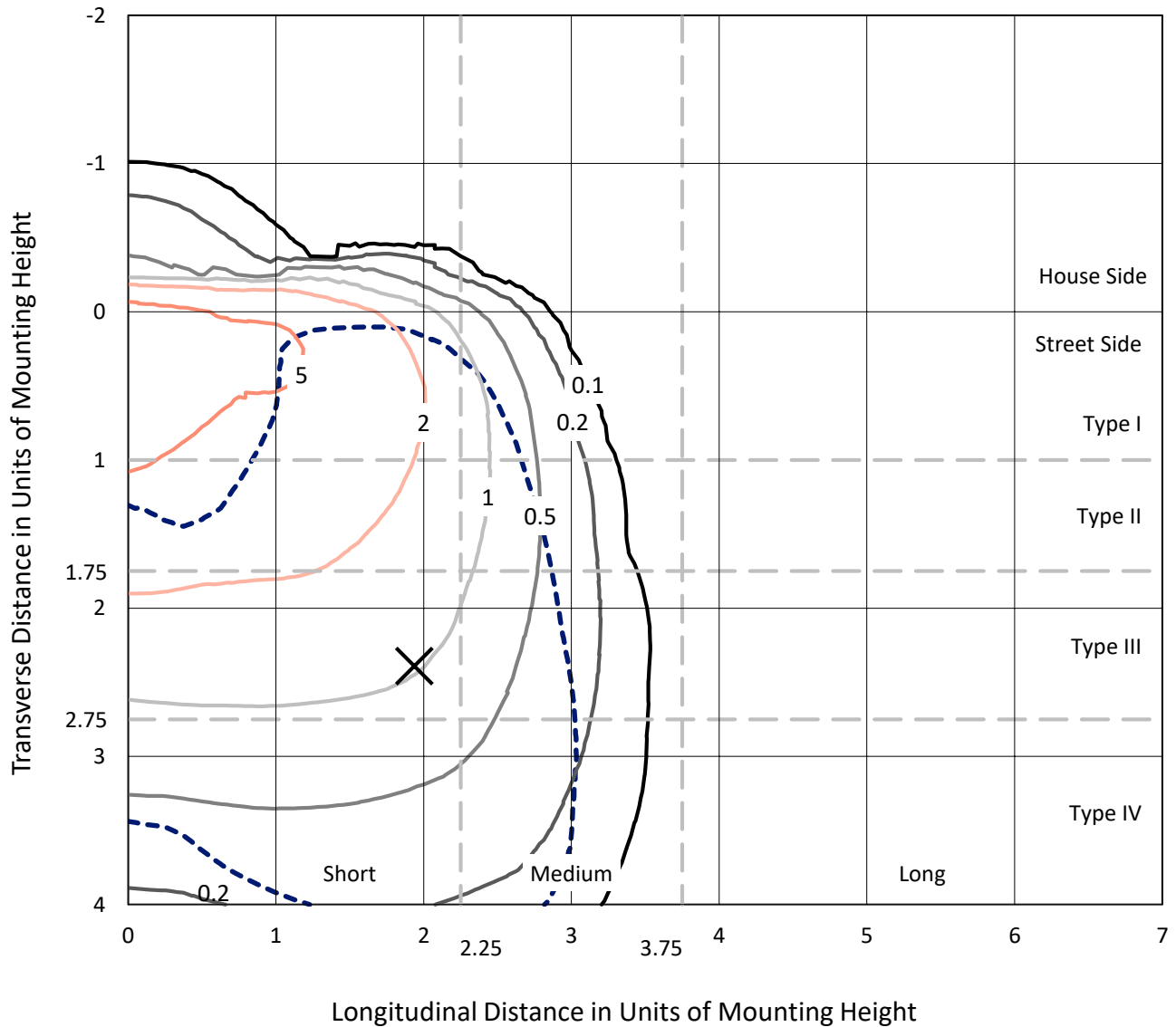
Input Watts (W): 67
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

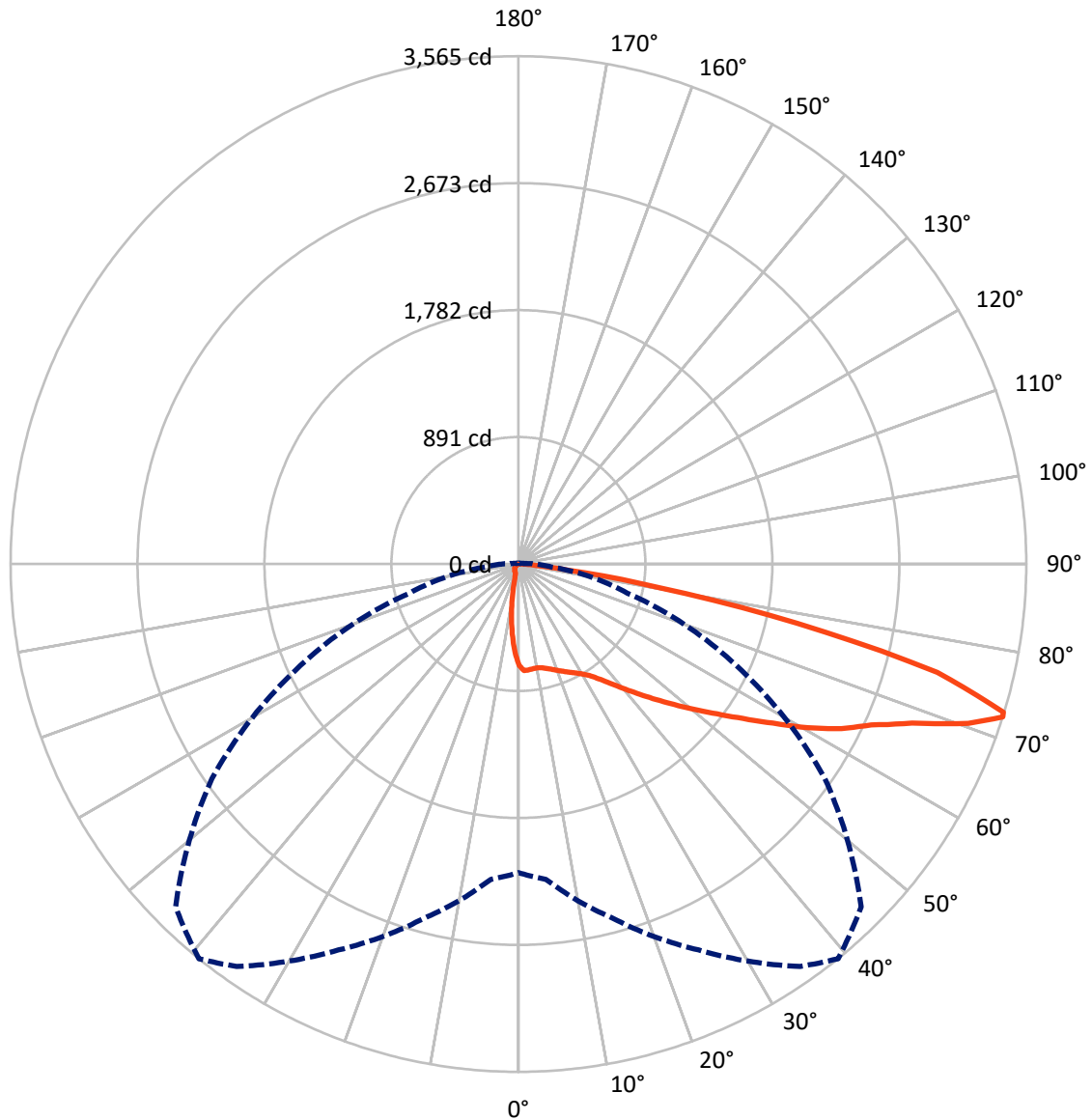


Based on 10 foot mounting height. Maximum calculated value = 7.5 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 39-Deg Lateral - - - Horizontal Cone Through 72-Deg Vertical

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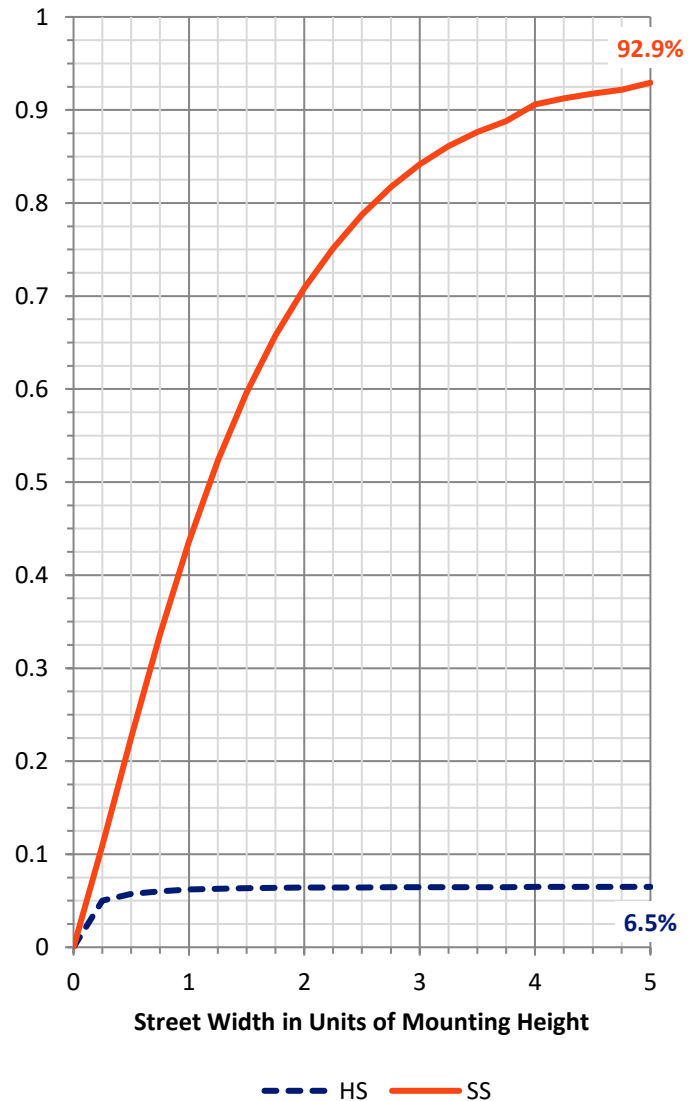
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	292.0	0.0	292.0
	% Fixture	6.6	0.0	6.6
Street Side	Lumens	4163.0	0.0	4163.0
	% Fixture	93.4	0.0	93.4
Total	Lumens	4455.0	0.0	4455.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.0	1.3
10°-20°	140.4	3.2
20°-30°	233.2	5.2
30°-40°	371.7	8.3
40°-50°	613.5	13.8
50°-60°	926.5	20.8
60°-70°	1206.9	27.1
70°-80°	815.5	18.3
80°-90°	89.3	2.0
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°	4455.0	100.0
0°-180°	4455.0	100.0

Coefficient of Utilization



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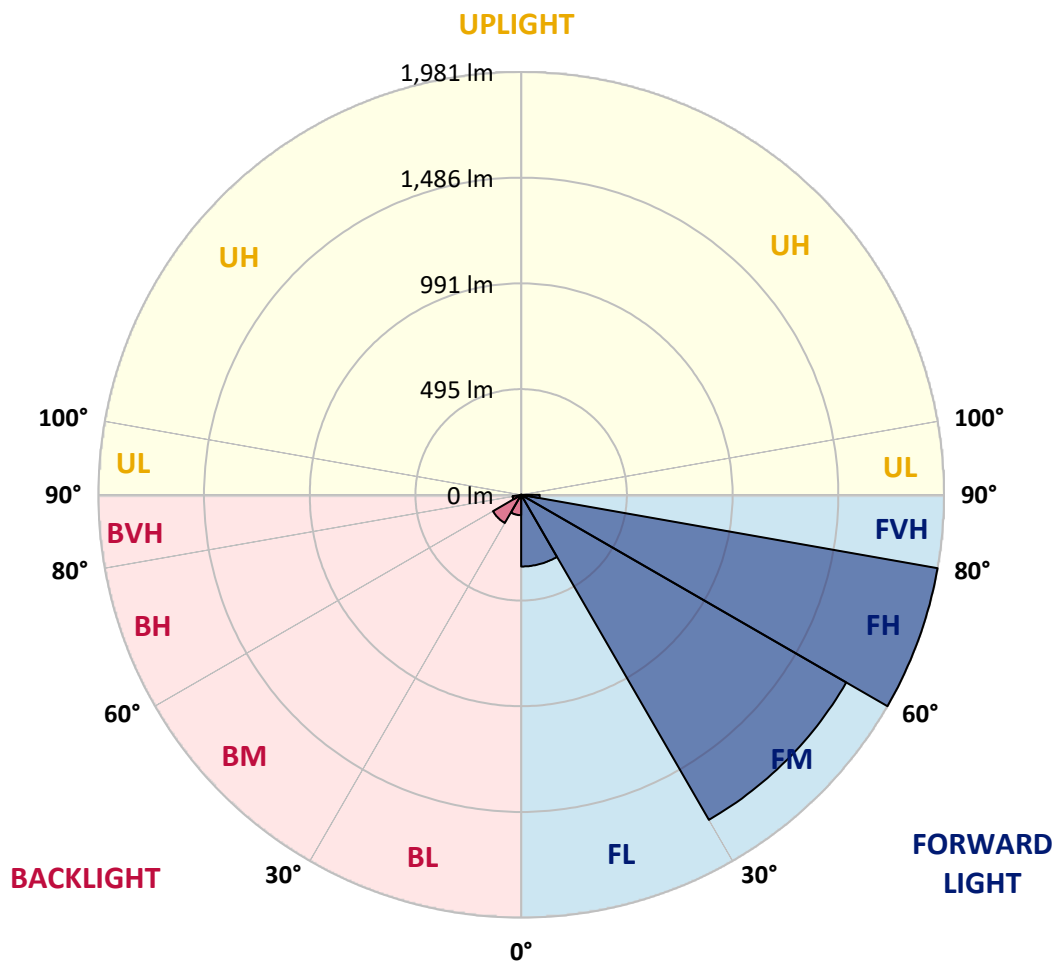
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	336.0	7.5			
FM	(30°-60°)	1758.9	39.5			
FH	(60°-80°)	1981.4	44.5			G2/5000
FVH	(80°-90°)	86.8	1.9			G1/100
BL	(0°-30°)	95.6	2.1	B0/110		
BM	(30°-60°)	152.8	3.4	B0/220		
BH	(60°-80°)	41.0	0.9	B0/110		G0/110
BVH	(80°-90°)	2.6	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	39°	45°	55°	65°	75°	85°
0°	713.1	713.1	713.1	713.1	713.1	713.1	713.1	713.1	713.1	713.1	713.1
2.5°	759.3	760.7	758.9	755.8	751.2	748.4	744.6	736.2	725.7	716.6	706.0
5°	765.2	765.9	763.8	757.9	750.9	747.0	742.1	733.0	722.2	709.5	690.6
7.5°	767.0	766.6	764.2	756.8	746.0	741.1	732.7	721.5	710.2	698.7	677.3
10°	766.3	766.3	764.5	757.5	745.3	740.7	731.3	719.4	705.3	693.8	671.0
12.5°	763.8	765.2	764.2	760.3	751.2	747.7	739.3	727.4	714.1	702.2	678.0
15°	767.0	769.1	771.2	769.8	764.5	761.4	753.7	741.4	730.6	718.0	692.0
17.5°	779.6	784.1	789.0	789.4	783.8	778.2	769.4	756.8	746.3	734.8	706.7
20°	803.4	806.9	816.0	817.8	806.6	798.5	786.2	771.5	761.0	751.2	720.4
22.5°	838.8	842.6	850.0	847.5	828.6	819.2	803.8	786.9	776.1	770.5	736.2
25°	892.4	893.4	895.2	884.3	853.1	842.6	823.7	804.8	796.1	795.4	758.6
27.5°	955.4	956.8	949.1	924.9	880.5	866.8	845.4	828.3	824.1	829.3	786.9
30°	1027.6	1027.9	1006.5	967.3	912.0	896.9	874.9	855.9	859.8	872.8	823.4
32.5°	1101.4	1097.9	1068.5	1017.4	955.1	936.8	917.9	899.0	910.2	936.5	876.6
35°	1169.0	1167.6	1133.0	1073.4	1011.1	995.0	981.3	961.4	979.6	1022.3	949.1
37.5°	1236.6	1235.6	1196.0	1134.0	1080.1	1068.5	1058.4	1043.0	1072.7	1135.4	1046.1
40°	1311.2	1309.5	1260.8	1201.3	1160.3	1154.0	1148.0	1141.4	1192.2	1279.4	1166.9
42.5°	1403.3	1395.6	1329.4	1274.5	1248.5	1250.3	1250.6	1257.3	1336.8	1450.6	1309.5
45°	1509.1	1491.9	1398.4	1352.9	1345.6	1356.1	1366.6	1394.2	1505.3	1647.8	1467.1
47.5°	1611.7	1584.1	1477.9	1437.3	1452.4	1474.1	1499.3	1553.2	1694.4	1854.1	1610.0
50°	1700.0	1671.6	1556.7	1523.1	1571.1	1603.3	1648.1	1729.7	1894.0	2028.5	1700.0
52.5°	1769.3	1746.9	1640.1	1617.7	1702.8	1746.9	1817.3	1924.5	2082.4	2143.4	1763.0
55°	1820.5	1809.2	1719.9	1723.1	1849.2	1912.9	2000.5	2121.6	2241.4	2232.7	1810.3
57.5°	1878.2	1869.5	1803.6	1847.4	2025.3	2107.6	2208.8	2306.2	2357.0	2304.5	1856.5
60°	1937.4	1940.2	1905.2	1998.0	2243.2	2334.2	2422.5	2446.6	2456.1	2377.3	1905.2
62.5°	1982.3	1994.2	1997.3	2160.5	2466.6	2544.4	2582.5	2565.4	2563.3	2475.0	1901.4
65°	2033.7	2064.9	2116.7	2338.8	2669.7	2720.9	2748.2	2773.1	2720.5	2504.1	1714.3
67.5°	2122.7	2171.7	2288.3	2557.3	2904.4	2980.0	3057.4	3031.2	2744.0	2208.8	1306.0
70°	2242.5	2302.4	2508.3	2842.8	3222.7	3349.5	3414.3	3010.5	2329.7	1526.3	688.9
72°	2166.8	2221.1	2576.2	2988.4	3448.3	3564.6	3402.4	2626.0	1688.8	791.2	230.8
72.5°	2093.3	2149.3	2554.5	2986.7	3470.7	3559.7	3325.0	2474.3	1494.4	615.7	159.0
75°	1452.4	1523.1	2189.9	2684.8	3134.1	3036.4	2544.0	1498.2	541.4	105.8	52.5
77.5°	750.9	805.5	1328.4	1897.2	2184.3	2000.5	1503.5	650.0	149.9	56.0	34.7
80°	465.4	492.4	621.3	934.7	1134.7	992.5	663.3	262.7	96.0	33.3	27.7
82.5°	241.0	261.6	391.2	377.2	419.2	348.5	244.8	219.9	59.2	20.7	28.4
85°	79.2	84.1	240.3	250.8	179.3	120.5	108.6	209.8	17.2	13.3	24.2
87.5°	10.5	12.3	84.4	143.6	88.3	54.6	65.1	73.9	6.0	7.4	6.7
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°	713.1	713.1	713.1	713.1	713.1	713.1	713.1	713.1	713.1	713.1	713.1
2.5°	699.0	694.5	680.1	665.8	649.3	634.3	622.3	614.6	618.1	606.6	608.3
5°	679.1	667.5	636.0	602.0	565.3	530.9	503.6	483.3	479.5	461.9	462.6
7.5°	659.8	640.9	589.8	533.7	472.8	423.4	378.6	339.4	325.4	311.0	302.6
10°	649.3	623.4	550.9	469.3	383.5	311.0	248.0	198.6	177.9	162.9	155.5
12.5°	652.5	618.1	521.8	410.8	298.0	205.9	140.1	104.0	91.4	84.4	82.0
15°	663.0	619.2	495.6	353.7	216.8	124.7	82.3	70.4	69.3	69.0	68.6
17.5°	672.8	620.2	467.9	294.2	145.0	79.5	66.2	65.1	65.1	65.1	65.1
20°	682.9	620.6	437.4	231.8	95.3	65.1	62.3	61.6	62.3	62.3	62.3
22.5°	694.8	623.0	408.0	171.3	70.4	61.3	59.5	59.2	59.5	59.5	59.2
25°	709.5	628.3	376.1	122.6	63.7	58.8	57.1	56.7	57.1	56.7	56.7
27.5°	729.2	635.3	339.0	87.9	60.9	56.4	54.6	54.6	54.6	54.3	54.3
30°	754.4	643.7	289.3	69.3	58.1	53.9	52.5	52.5	52.2	51.8	51.8
32.5°	790.5	657.4	235.0	62.7	55.0	50.8	49.4	49.7	49.4	49.0	48.7
35°	841.6	678.7	181.4	59.2	51.8	47.6	46.2	46.2	46.2	45.5	45.5
37.5°	914.1	711.3	135.9	55.7	48.7	44.5	42.7	42.7	42.4	41.7	42.0
40°	1003.7	752.3	98.4	52.5	45.5	41.0	39.6	38.9	38.2	37.5	37.5
42.5°	1111.6	792.2	73.9	49.4	42.4	38.2	36.4	35.7	34.3	33.6	33.3
45°	1232.4	834.6	61.3	45.5	38.9	35.0	33.6	32.2	30.5	29.4	29.1
47.5°	1334.3	860.5	54.6	41.7	35.4	31.9	30.5	28.4	26.3	25.6	25.6
50°	1395.6	849.6	49.0	37.8	31.9	28.7	27.0	24.2	22.8	22.1	21.7
52.5°	1430.0	817.4	44.5	34.7	28.7	25.2	22.8	20.3	19.6	18.9	18.9
55°	1453.4	770.8	39.6	31.5	25.9	22.1	19.3	17.5	16.8	16.5	16.1
57.5°	1475.8	714.1	35.0	28.7	23.1	19.6	16.5	15.8	14.4	14.0	14.0
60°	1482.5	636.0	30.8	25.6	20.7	17.2	14.4	13.3	11.9	11.6	11.6
62.5°	1397.7	506.1	27.3	21.7	18.2	14.7	12.6	11.2	9.8	9.8	9.8
65°	1168.0	343.6	23.5	18.9	16.1	12.6	10.9	9.1	8.4	8.4	8.4
67.5°	813.6	191.6	20.0	16.1	13.7	10.5	9.1	7.7	7.4	7.7	7.7
70°	366.7	76.0	16.8	13.3	11.2	8.8	7.7	6.7	7.4	7.4	7.4
72°	110.0	40.6	14.0	10.9	9.1	7.7	6.7	6.3	7.0	7.4	7.4
72.5°	81.6	36.4	13.3	10.5	9.1	7.4	6.3	6.3	7.0	7.4	7.4
75°	42.0	24.9	10.2	7.7	6.7	6.0	5.3	6.0	7.0	7.0	7.0
77.5°	32.9	20.3	8.4	6.0	5.6	5.3	4.9	5.6	6.3	6.3	6.3
80°	30.8	13.3	6.7	5.6	4.9	4.6	4.6	4.9	5.6	6.0	6.0
82.5°	31.2	10.9	6.0	5.3	4.6	4.2	4.2	4.6	5.3	5.6	5.6
85°	20.0	7.4	5.3	4.6	4.2	3.9	3.9	4.2	4.9	5.3	5.3
87.5°	6.7	5.6	4.6	4.2	3.5	3.5	3.5	3.5	4.2	4.6	4.9
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)