

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: P270285

Luminaire Tested: **NAV-AF-01-D-UNV-SL4-7027-800-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270285
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-SL4-7027-800-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2700K, 800mA 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: 3494.1 lumens
Efficiency: N/A
Efficacy: 79.4 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 - G1

Input Watts (W): 44
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

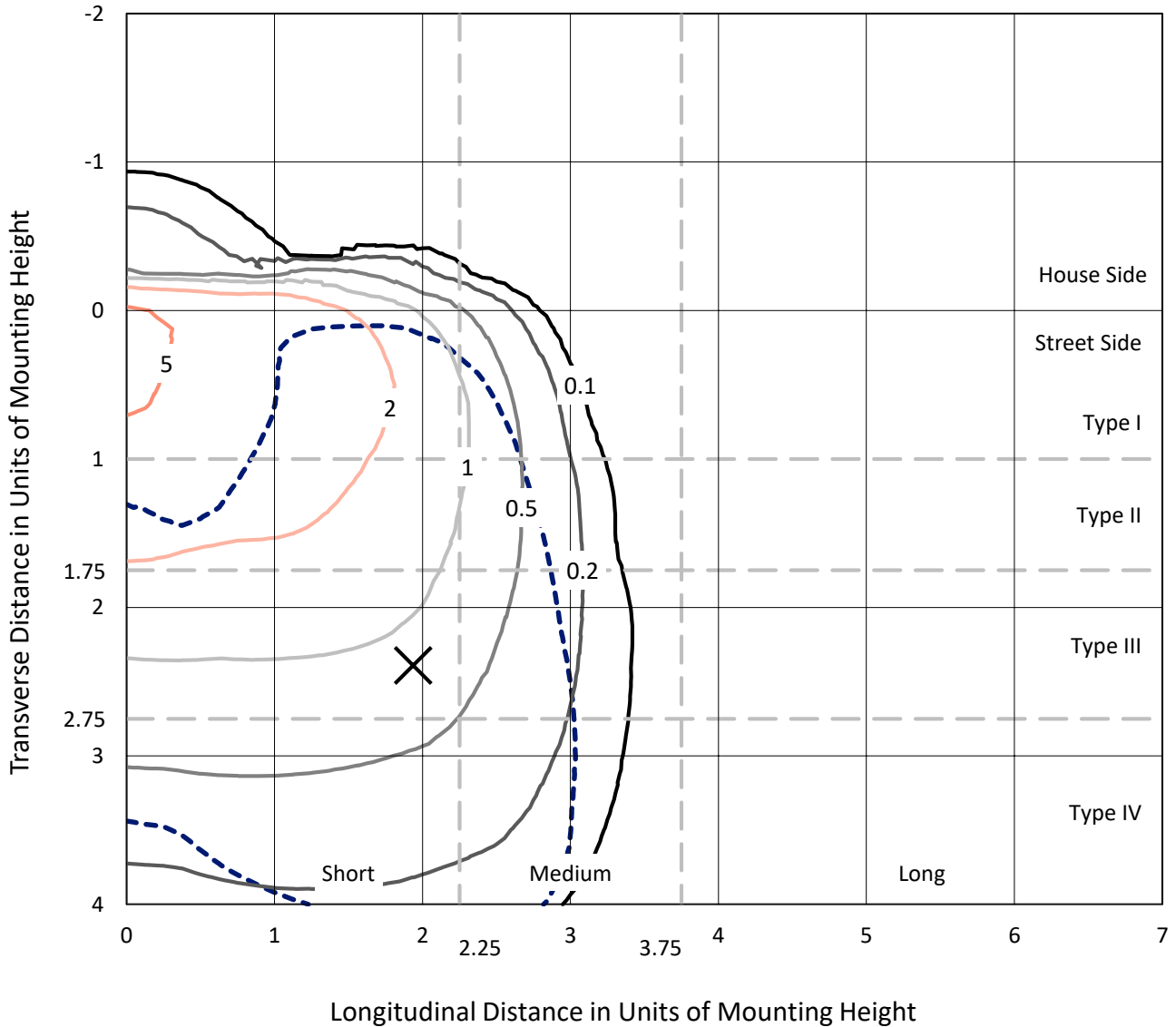


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Iso-Footcandle Lines of Horizontal Illumination

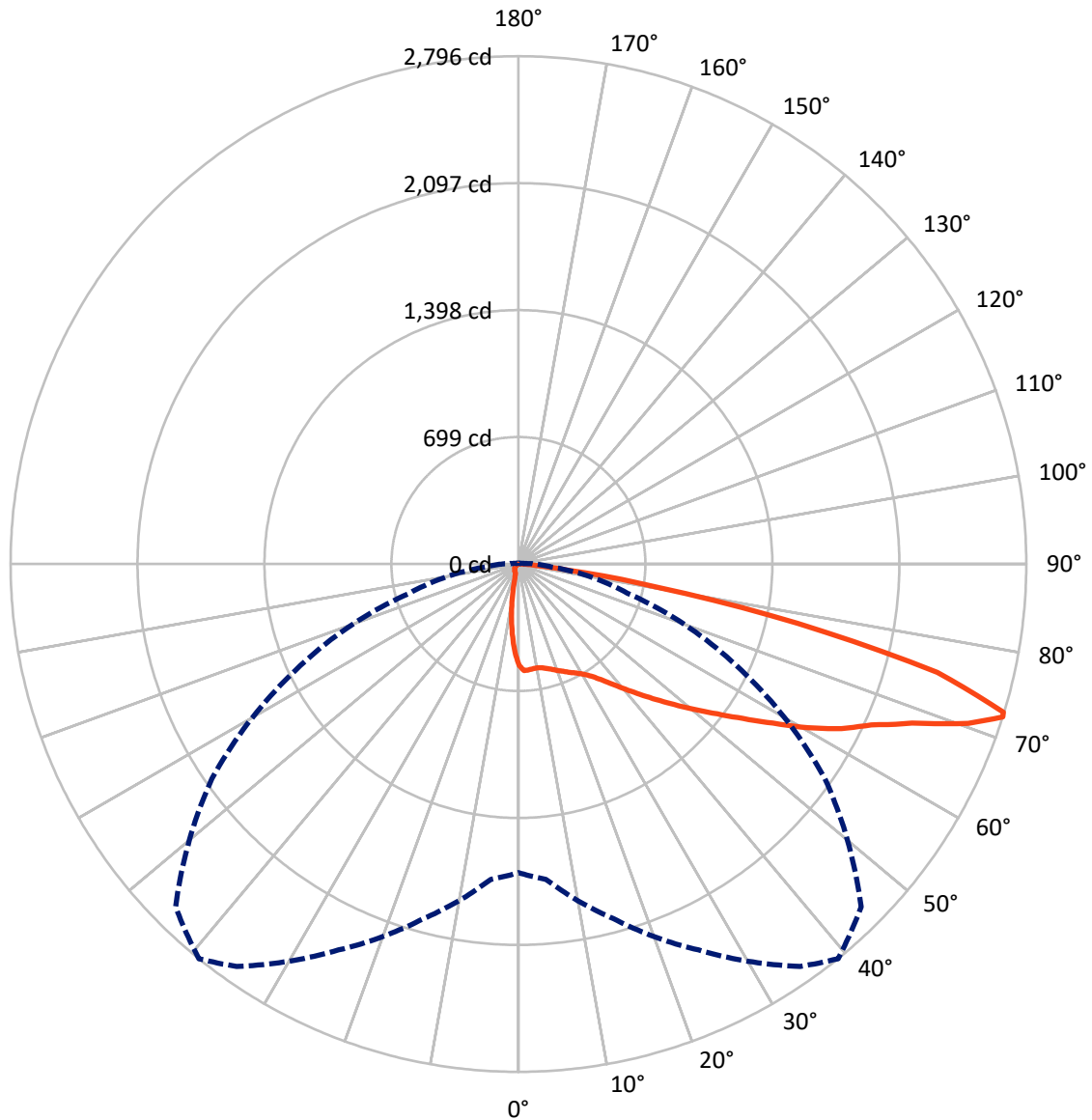
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.9 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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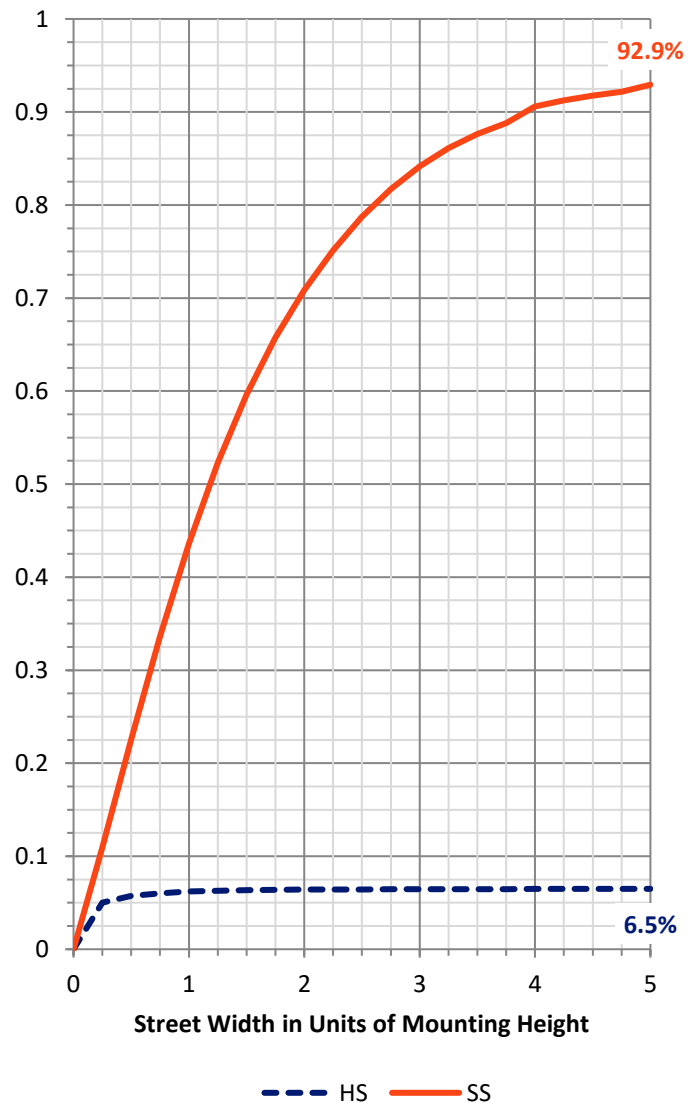
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	229.0	0.0	229.0
	% Fixture	6.6	0.0	6.6
Street Side	Lumens	3265.1	0.0	3265.1
	% Fixture	93.4	0.0	93.4
Total	Lumens	3494.1	0.0	3494.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.5	1.3
10°-20°	110.1	3.2
20°-30°	182.9	5.2
30°-40°	291.5	8.3
40°-50°	481.2	13.8
50°-60°	726.7	20.8
60°-70°	946.6	27.1
70°-80°	639.6	18.3
80°-90°	70.1	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°	3494.1	100.0
0°-180°	3494.1	100.0



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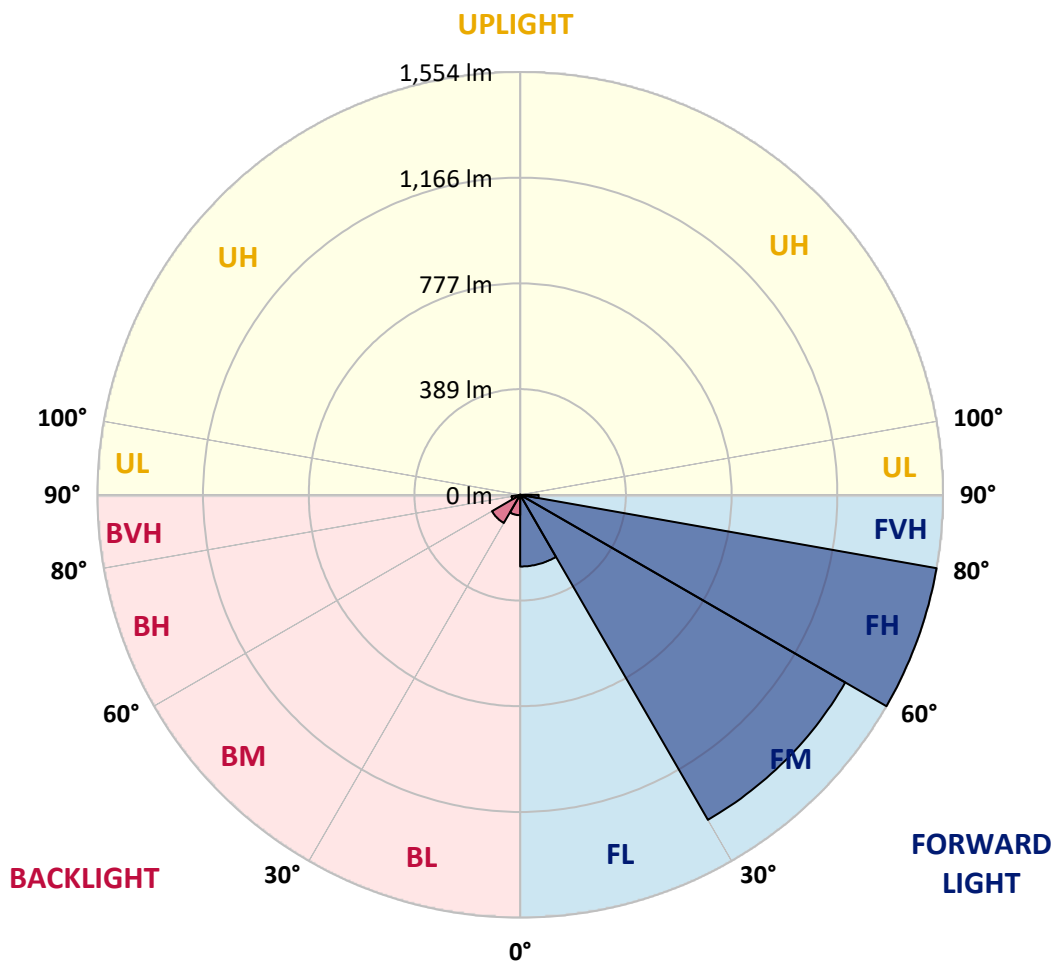
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	263.5	7.5			
FM	(30°-60°)	1379.5	39.5			
FH	(60°-80°)	1554.0	44.5			G1/1800
FVH	(80°-90°)	68.0	1.9			G1/100
BL	(0°-30°)	75.0	2.1	B0/110		
BM	(30°-60°)	119.8	3.4	B0/220		
BH	(60°-80°)	32.2	0.9	B0/110		G0/110
BVH	(80°-90°)	2.0	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-G1

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	39°	45°	55°	65°	75°	85°
0°	559.3	559.3	559.3	559.3	559.3	559.3	559.3	559.3	559.3	559.3	559.3
2.5°	595.4	596.7	595.2	592.7	589.2	587.0	584.0	577.4	569.2	562.0	553.7
5°	600.2	600.7	599.1	594.4	588.8	585.9	582.0	574.9	566.4	556.5	541.7
7.5°	601.5	601.2	599.3	593.6	585.1	581.3	574.6	565.8	557.0	548.0	531.3
10°	601.0	601.0	599.6	594.0	584.4	580.9	573.6	564.1	553.1	544.2	526.2
12.5°	599.1	600.2	599.3	596.4	589.2	586.5	579.9	570.6	560.1	550.8	531.7
15°	601.5	603.2	604.9	603.8	599.6	597.2	591.2	581.6	572.9	563.1	542.8
17.5°	611.4	615.0	618.8	619.1	614.7	610.4	603.5	593.6	585.3	576.4	554.3
20°	630.2	632.9	640.0	641.4	632.5	626.3	616.6	605.1	596.8	589.2	565.0
22.5°	657.9	661.0	666.6	664.7	650.0	642.5	630.4	617.2	608.7	604.3	577.4
25°	699.9	700.7	702.0	693.6	669.1	661.0	646.1	631.1	624.3	623.9	594.9
27.5°	749.4	750.4	744.3	725.4	690.5	679.8	663.0	649.7	646.3	650.5	617.2
30°	805.9	806.1	789.4	758.7	715.3	703.5	686.1	671.4	674.4	684.5	645.8
32.5°	863.9	861.1	838.1	798.0	749.0	734.8	719.9	705.1	714.0	734.5	687.6
35°	916.9	915.8	888.7	841.9	793.1	780.4	769.7	753.9	768.3	801.7	744.3
37.5°	969.9	969.1	938.0	889.4	847.1	838.1	830.0	817.9	841.4	890.5	820.5
40°	1028.4	1027.0	988.9	942.1	910.1	905.0	900.5	895.3	935.0	1003.3	915.3
42.5°	1100.7	1094.7	1042.8	999.5	979.2	980.6	980.9	986.1	1048.4	1137.8	1027.0
45°	1183.5	1170.1	1096.8	1061.1	1055.2	1063.6	1071.8	1093.4	1180.6	1292.4	1150.5
47.5°	1264.0	1242.4	1159.2	1127.4	1139.1	1156.1	1175.9	1218.2	1329.0	1454.1	1262.7
50°	1333.4	1311.0	1220.9	1194.6	1232.3	1257.4	1292.7	1356.6	1485.4	1591.0	1333.4
52.5°	1387.7	1370.2	1286.4	1268.8	1335.5	1370.2	1425.3	1509.3	1633.3	1681.1	1382.8
55°	1427.8	1419.1	1349.0	1351.4	1450.4	1500.3	1569.0	1664.0	1758.0	1751.1	1419.9
57.5°	1473.1	1466.3	1414.7	1449.0	1588.5	1653.1	1732.4	1808.7	1848.6	1807.4	1456.2
60°	1519.6	1521.6	1494.3	1567.1	1759.3	1830.7	1899.9	1918.9	1926.3	1864.5	1494.3
62.5°	1554.6	1563.9	1566.6	1694.6	1934.6	1995.6	2025.5	2012.1	2010.3	1941.1	1491.2
65°	1595.1	1619.6	1660.2	1834.2	2093.9	2134.1	2155.5	2174.9	2133.7	1964.0	1344.6
67.5°	1664.7	1703.2	1794.8	2005.7	2277.9	2337.3	2397.9	2377.4	2152.1	1732.4	1024.2
70°	1758.8	1805.8	1967.3	2229.6	2527.7	2627.1	2677.8	2361.1	1827.2	1197.0	540.3
72°	1699.5	1742.1	2020.6	2343.9	2704.4	2795.6	2668.5	2059.5	1324.6	620.5	181.0
72.5°	1641.7	1685.7	2003.5	2342.5	2722.0	2791.8	2607.8	1940.6	1172.1	482.8	124.8
75°	1139.1	1194.6	1717.6	2105.6	2458.1	2381.4	1995.2	1175.2	424.7	83.0	41.2
77.5°	588.8	631.8	1041.9	1488.0	1713.2	1569.0	1179.3	509.8	117.6	43.9	27.2
80°	365.0	386.2	487.3	733.1	890.0	778.4	520.3	206.0	75.3	26.1	21.6
82.5°	189.0	205.3	306.9	295.8	328.8	273.4	192.0	172.6	46.4	16.2	22.3
85°	62.1	65.9	188.5	196.6	140.7	94.5	85.2	164.5	13.5	10.4	19.0
87.5°	8.3	9.6	66.1	112.6	69.2	42.8	51.2	58.0	4.8	5.7	5.2
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°	559.3	559.3	559.3	559.3	559.3	559.3	559.3	559.3	559.3	559.3	559.3
2.5°	548.2	544.7	533.5	522.2	509.2	497.4	488.0	482.1	484.8	475.7	477.1
5°	532.6	523.5	498.7	472.1	443.4	416.5	395.0	379.1	376.0	362.2	362.8
7.5°	517.6	502.6	462.5	418.6	370.8	332.2	296.9	266.2	255.2	243.9	237.3
10°	509.2	488.9	432.1	368.0	300.8	243.9	194.5	155.8	139.5	127.6	122.0
12.5°	511.8	484.8	409.3	322.2	233.7	161.5	109.9	81.6	71.7	66.1	64.3
15°	519.9	485.7	388.6	277.4	170.0	97.7	64.6	55.2	54.3	54.1	53.9
17.5°	527.7	486.4	367.0	230.8	113.7	62.3	51.9	51.2	51.2	51.2	51.2
20°	535.6	486.7	343.1	181.8	74.6	51.2	48.9	48.4	48.9	48.9	48.9
22.5°	544.9	488.7	319.9	134.3	55.2	48.1	46.7	46.4	46.7	46.7	46.4
25°	556.5	492.8	295.1	96.2	49.9	46.2	44.7	44.5	44.7	44.5	44.5
27.5°	572.0	498.3	265.9	68.9	47.8	44.2	42.8	42.8	42.8	42.6	42.6
30°	591.7	504.8	226.9	54.3	45.6	42.3	41.2	41.2	41.0	40.7	40.7
32.5°	620.0	515.5	184.3	49.1	43.1	39.9	38.7	38.9	38.7	38.4	38.2
35°	660.1	532.3	142.3	46.4	40.7	37.4	36.2	36.2	36.2	35.8	35.8
37.5°	716.8	557.8	106.5	43.7	38.2	34.9	33.4	33.4	33.2	32.7	33.0
40°	787.3	589.9	77.2	41.2	35.8	32.1	31.0	30.5	30.0	29.4	29.4
42.5°	871.9	621.4	58.0	38.7	33.2	30.0	28.6	27.9	26.9	26.4	26.1
45°	966.5	654.5	48.1	35.8	30.5	27.5	26.4	25.2	23.9	23.0	22.7
47.5°	1046.5	674.8	42.8	32.7	27.8	25.1	23.9	22.3	20.7	20.0	20.0
50°	1094.7	666.4	38.4	29.6	25.1	22.5	21.1	19.0	17.8	17.2	17.1
52.5°	1121.5	641.1	34.9	27.2	22.5	19.9	17.8	15.9	15.5	14.8	14.8
55°	1139.9	604.6	31.0	24.8	20.3	17.2	15.1	13.7	13.1	12.9	12.7
57.5°	1157.5	560.1	27.5	22.5	18.1	15.5	12.9	12.3	11.3	11.0	11.0
60°	1162.8	498.7	24.2	20.0	16.2	13.5	11.3	10.4	9.3	9.1	9.1
62.5°	1096.2	397.0	21.4	17.1	14.4	11.6	9.9	8.9	7.6	7.6	7.6
65°	916.0	269.4	18.4	14.8	12.7	9.9	8.5	7.1	6.6	6.6	6.6
67.5°	638.1	150.2	15.7	12.7	10.7	8.3	7.1	6.1	5.7	6.1	6.1
70°	287.5	59.6	13.1	10.4	8.9	6.8	6.1	5.2	5.7	5.7	5.7
72°	86.2	31.9	11.0	8.5	7.1	6.1	5.2	4.9	5.5	5.7	5.7
72.5°	64.0	28.6	10.4	8.3	7.1	5.7	4.9	4.9	5.5	5.7	5.7
75°	33.0	19.6	7.9	6.1	5.2	4.8	4.1	4.8	5.5	5.5	5.5
77.5°	25.8	15.9	6.6	4.8	4.4	4.1	3.9	4.4	4.9	4.9	4.9
80°	24.2	10.4	5.2	4.4	3.9	3.6	3.6	3.9	4.4	4.8	4.8
82.5°	24.4	8.5	4.8	4.1	3.6	3.4	3.4	3.6	4.1	4.4	4.4
85°	15.7	5.7	4.1	3.6	3.4	3.1	3.1	3.4	3.9	4.1	4.1
87.5°	5.2	4.4	3.6	3.4	2.8	2.8	2.8	2.8	3.4	3.6	3.9
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)