

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: P196633

Luminaire Tested: **NAV-AF-01-D-UNV-SL4-7030-600-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196633
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-SL4-7030-600-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 615mA 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: 3171.8 lumens
Efficiency: N/A
Efficacy: 93.3 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): 34
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

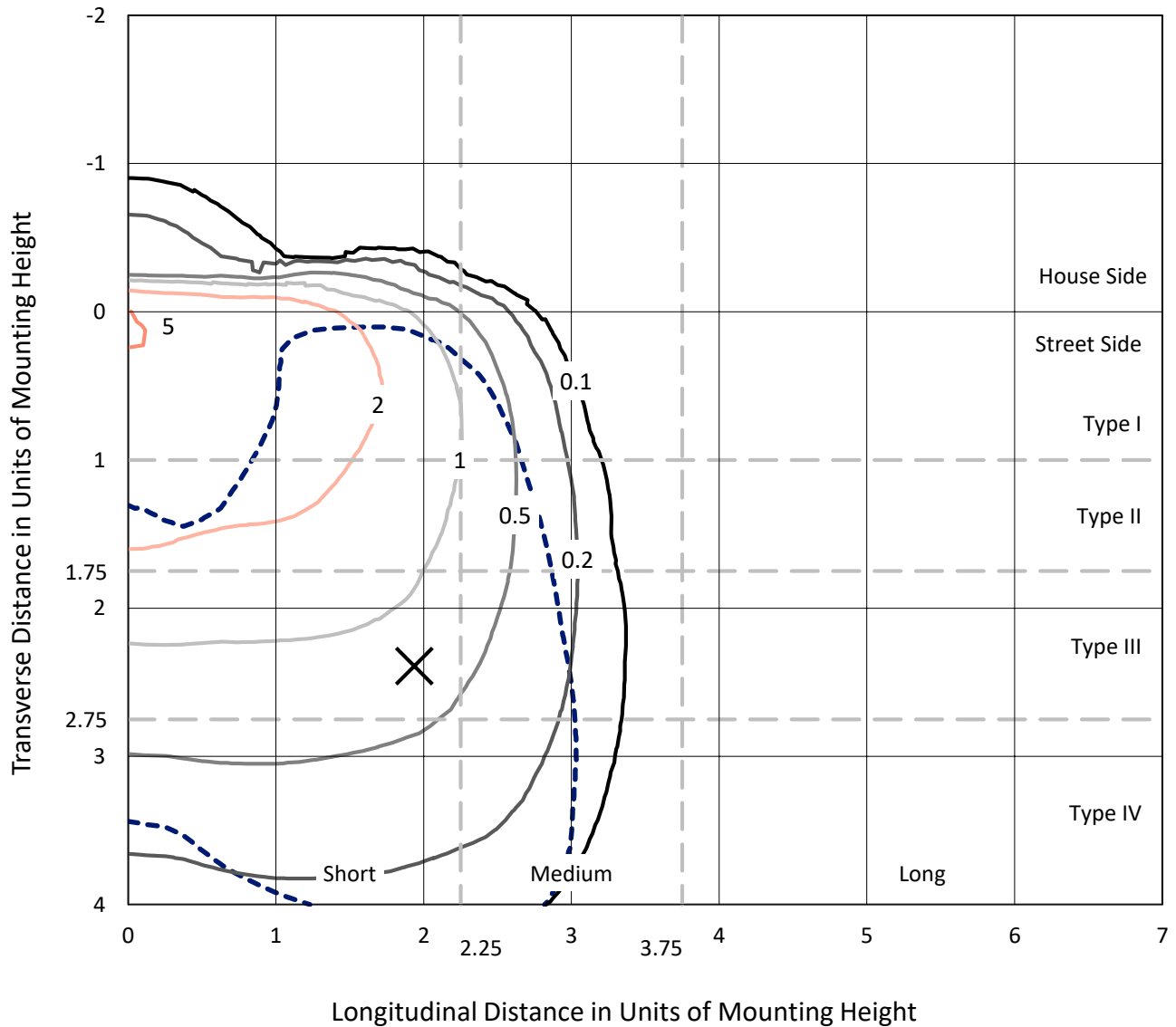


REPORT NUMBER: P196633

CATALOG NUMBER: NAV-AF-01-D-UNV-SL4-7030-600-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

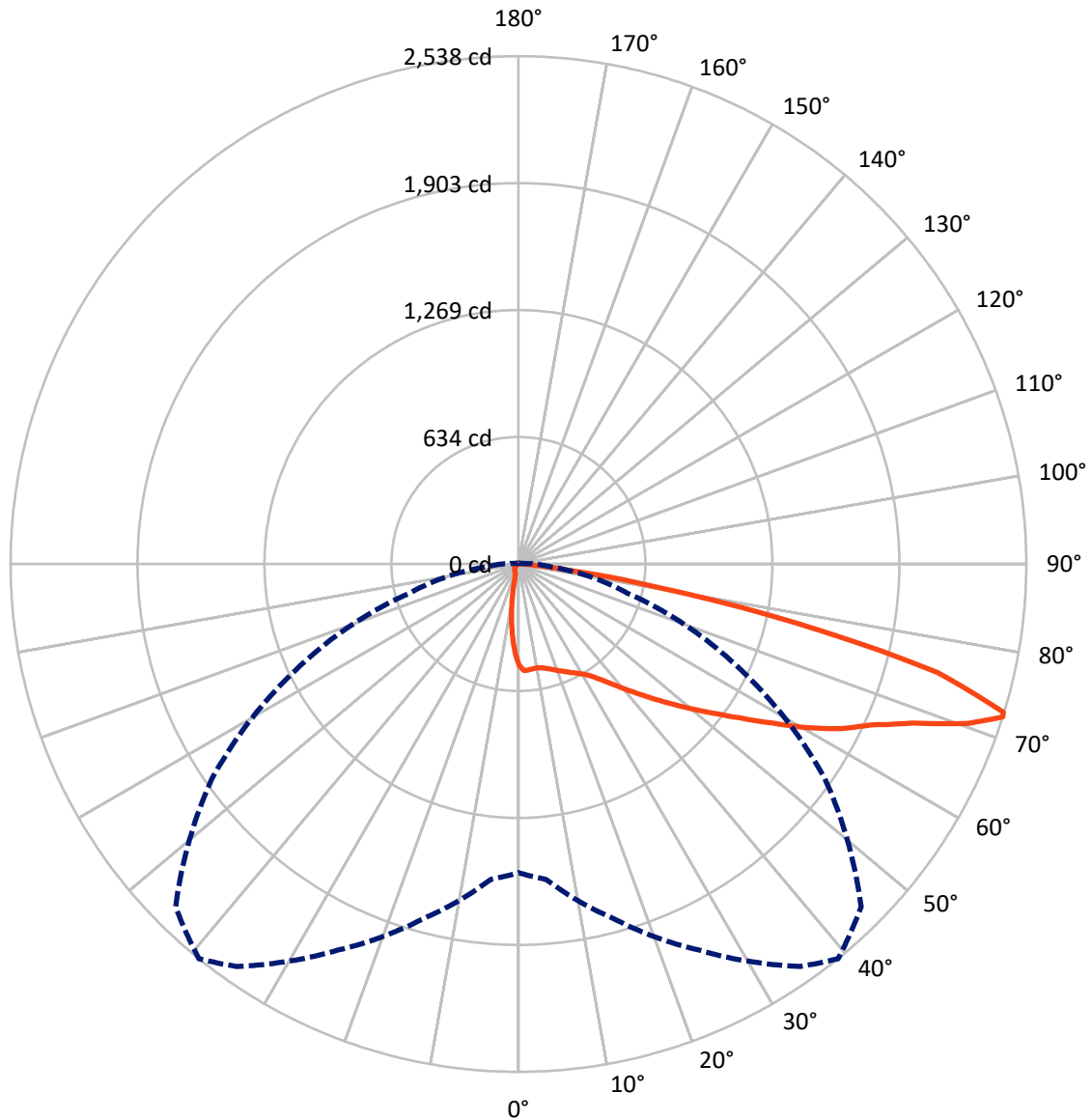


Based on 10 foot mounting height. Maximum calculated value = 5.3 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P196633

CATALOG NUMBER: NAV-AF-01-D-UNV-SL4-7030-600-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P196633

CATALOG NUMBER: NAV-AF-01-D-UNV-SL4-7030-600-HSS

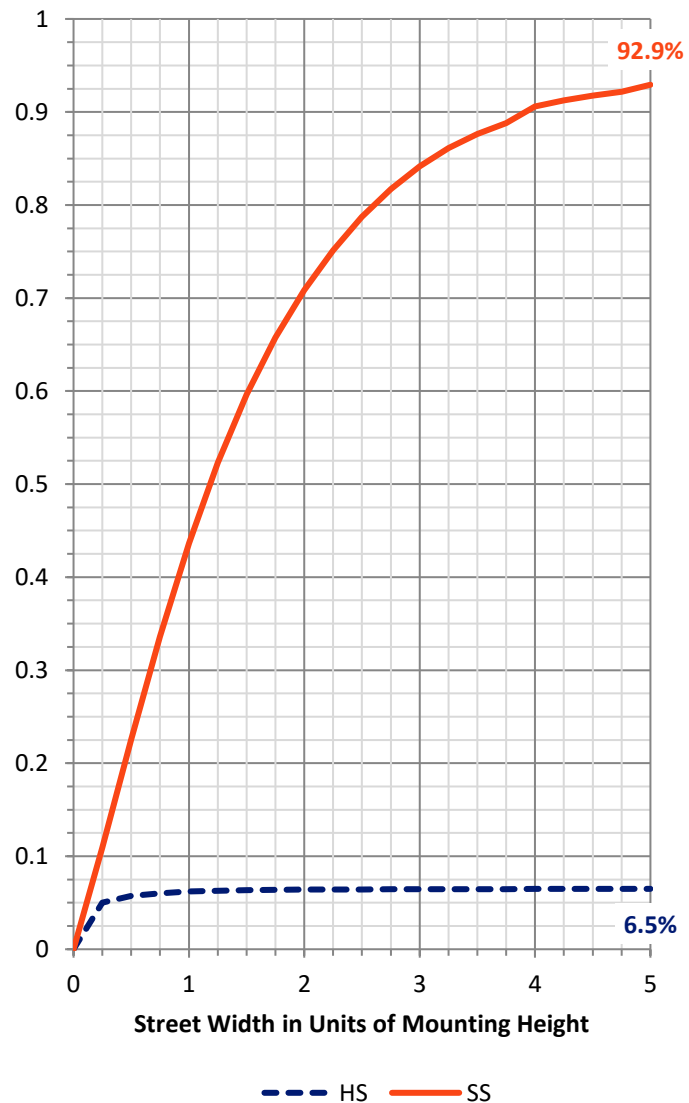
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	207.9	0.0	207.9
	% Fixture	6.6	0.0	6.6
Street Side	Lumens	2963.9	0.0	2963.9
	% Fixture	93.4	0.0	93.4
Total	Lumens	3171.8	0.0	3171.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.3	1.3
10°-20°	100.0	3.2
20°-30°	166.0	5.2
30°-40°	264.6	8.3
40°-50°	436.8	13.8
50°-60°	659.6	20.8
60°-70°	859.3	27.1
70°-80°	580.6	18.3
80°-90°	63.6	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°	3171.8	100.0
0°-180°	3171.8	100.0



REPORT NUMBER: P196633

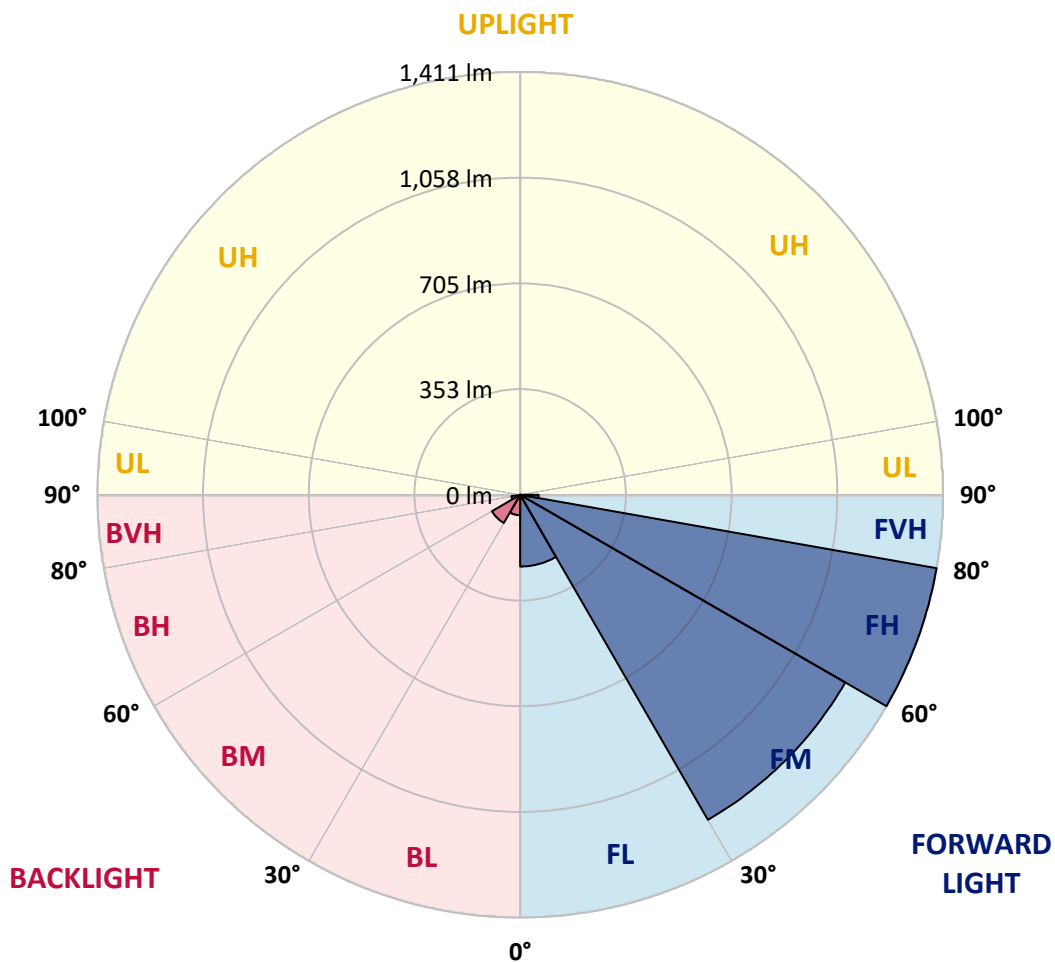
CATALOG NUMBER: NAV-AF-01-D-UNV-SL4-7030-600-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	239.2	7.5			
FM	(30°-60°)	1252.3	39.5			
FH	(60°-80°)	1410.7	44.5			G1/1800
FVH	(80°-90°)	61.8	1.9			G1/100
BL	(0°-30°)	68.1	2.1	B0/110		
BM	(30°-60°)	108.8	3.4	B0/220		
BH	(60°-80°)	29.2	0.9	B0/110		G0/110
BVH	(80°-90°)	1.8	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





REPORT NUMBER: P196633

CATALOG NUMBER: NAV-AF-01-D-UNV-SL4-7030-600-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	39°	45°	55°	65°	75°	85°
0°	507.6	507.6	507.6	507.6	507.6	507.6	507.6	507.6	507.6	507.6	507.6
2.5°	540.7	541.6	540.3	538.1	534.9	532.8	530.1	524.1	516.7	510.1	502.7
5°	544.7	545.3	543.8	539.6	534.6	531.9	528.4	521.9	514.2	505.3	491.6
7.5°	546.1	545.9	544.1	538.8	531.1	527.6	521.6	513.6	505.7	497.4	482.3
10°	545.5	545.5	544.3	539.3	530.6	527.4	520.6	512.2	502.1	494.0	477.8
12.5°	543.8	544.7	544.1	541.4	534.9	532.3	526.4	517.9	508.4	500.0	482.7
15°	546.1	547.6	549.0	548.1	544.3	542.0	536.6	527.8	520.2	511.2	492.8
17.5°	555.0	558.4	561.8	562.0	558.0	554.1	547.8	538.8	531.3	523.2	503.1
20°	572.0	574.4	580.9	582.3	574.2	568.4	559.7	549.3	541.8	534.9	512.9
22.5°	597.2	600.0	605.2	603.4	590.0	583.2	572.3	560.3	552.6	548.6	524.1
25°	635.4	636.1	637.3	629.6	607.4	600.0	586.5	572.9	566.7	566.3	540.1
27.5°	680.2	681.2	675.8	658.5	626.8	617.1	601.9	589.7	586.7	590.4	560.3
30°	731.6	731.8	716.6	688.7	649.3	638.6	622.9	609.4	612.2	621.3	586.1
32.5°	784.2	781.7	760.8	724.4	679.9	667.0	653.5	640.0	648.0	666.7	624.1
35°	832.3	831.4	806.7	764.3	719.9	708.4	698.7	684.4	697.4	727.8	675.8
37.5°	880.4	879.6	851.5	807.4	768.9	760.8	753.6	742.5	763.7	808.4	744.8
40°	933.5	932.3	897.7	855.3	826.1	821.6	817.4	812.6	848.7	910.9	830.8
42.5°	999.1	993.6	946.5	907.4	889.0	890.1	890.5	895.2	951.7	1032.8	932.3
45°	1074.4	1062.2	995.7	963.2	957.9	965.5	973.0	992.6	1071.8	1173.1	1044.5
47.5°	1147.4	1127.8	1052.2	1023.3	1034.0	1049.6	1067.5	1105.8	1206.3	1320.1	1146.2
50°	1210.4	1190.2	1108.3	1084.4	1118.6	1141.5	1173.5	1231.5	1348.5	1444.2	1210.4
52.5°	1259.6	1243.7	1167.7	1151.7	1212.3	1243.7	1293.8	1370.1	1482.6	1526.1	1255.2
55°	1296.2	1288.1	1224.6	1226.8	1316.6	1361.9	1424.3	1510.5	1595.8	1589.6	1288.8
57.5°	1337.3	1331.0	1284.2	1315.3	1442.0	1500.5	1572.6	1641.9	1678.1	1640.6	1321.8
60°	1379.4	1381.4	1356.5	1422.5	1597.1	1661.9	1724.7	1741.9	1748.7	1692.5	1356.5
62.5°	1411.3	1419.9	1422.0	1538.3	1756.2	1811.5	1838.8	1826.5	1824.9	1762.2	1353.7
65°	1447.9	1470.2	1507.0	1665.1	1900.8	1937.1	1956.7	1974.4	1936.9	1782.8	1220.5
67.5°	1511.3	1546.2	1629.3	1820.7	2067.8	2121.7	2176.8	2158.1	1953.7	1572.6	929.8
70°	1596.6	1639.2	1785.9	2023.9	2294.5	2384.7	2430.9	2143.3	1658.7	1086.7	490.5
72°	1542.7	1581.3	1834.1	2127.8	2455.0	2537.9	2422.4	1869.5	1202.3	563.2	164.3
72.5°	1490.3	1530.1	1818.7	2126.4	2471.0	2534.4	2367.3	1761.6	1063.9	438.3	113.2
75°	1034.0	1084.4	1559.1	1911.5	2231.4	2161.8	1811.2	1066.7	385.4	75.3	37.3
77.5°	534.6	573.5	945.7	1350.7	1555.2	1424.3	1070.4	462.8	106.7	39.9	24.7
80°	331.4	350.6	442.4	665.5	807.9	706.7	472.2	187.1	68.3	23.7	19.6
82.5°	171.5	186.3	278.5	268.6	298.5	248.1	174.3	156.6	42.2	14.7	20.2
85°	56.4	59.9	171.1	178.5	127.7	85.8	77.2	149.3	12.2	9.5	17.2
87.5°	7.4	8.7	60.1	102.2	62.9	38.9	46.3	52.7	4.3	5.3	4.7
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: P196633

CATALOG NUMBER: NAV-AF-01-D-UNV-SL4-7030-600-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	507.6	507.6	507.6	507.6	507.6	507.6	507.6	507.6	507.6	507.6	507.6
2.5°	497.6	494.4	484.2	473.9	462.2	451.6	443.0	437.6	440.1	431.9	433.1
5°	483.5	475.3	452.8	428.7	402.4	378.0	358.6	344.0	341.3	328.9	329.4
7.5°	469.9	456.2	419.9	380.0	336.6	301.4	269.6	241.6	231.6	221.5	215.5
10°	462.2	443.8	392.2	334.2	273.0	221.5	176.6	141.4	126.6	116.0	110.7
12.5°	464.6	440.1	371.5	292.5	212.2	146.6	99.8	74.1	65.1	60.1	58.4
15°	472.0	440.9	352.8	251.9	154.4	88.7	58.6	50.1	49.3	49.1	48.8
17.5°	479.0	441.6	333.1	209.4	103.2	56.6	47.1	46.3	46.3	46.3	46.3
20°	486.2	441.9	311.4	165.1	67.8	46.3	44.4	43.9	44.4	44.4	44.4
22.5°	494.7	443.6	290.5	122.0	50.1	43.6	42.4	42.2	42.4	42.4	42.2
25°	505.3	447.3	267.8	87.3	45.4	41.8	40.7	40.4	40.7	40.4	40.4
27.5°	519.1	452.4	241.4	62.6	43.3	40.1	38.9	38.9	38.9	38.7	38.7
30°	537.1	458.4	206.0	49.3	41.4	38.4	37.3	37.3	37.1	36.9	36.9
32.5°	562.8	468.0	167.2	44.7	39.2	36.2	35.2	35.4	35.2	34.9	34.6
35°	599.2	483.3	129.2	42.2	36.9	33.9	32.9	32.9	32.9	32.4	32.4
37.5°	650.7	506.4	96.7	39.7	34.6	31.6	30.4	30.4	30.1	29.7	29.9
40°	714.7	535.6	70.0	37.3	32.4	29.2	28.2	27.7	27.2	26.7	26.7
42.5°	791.5	564.0	52.7	35.2	30.1	27.2	25.9	25.4	24.5	23.9	23.7
45°	877.5	594.2	43.6	32.4	27.7	24.9	23.9	23.0	21.8	21.0	20.6
47.5°	950.0	612.6	38.9	29.7	25.1	22.7	21.8	20.2	18.7	18.2	18.2
50°	993.6	604.9	34.9	26.9	22.7	20.4	19.2	17.2	16.2	15.8	15.4
52.5°	1018.1	582.1	31.6	24.7	20.4	17.9	16.2	14.4	13.9	13.4	13.4
55°	1034.8	548.8	28.2	22.4	18.5	15.8	13.7	12.4	12.0	11.7	11.5
57.5°	1050.7	508.4	24.9	20.4	16.5	13.9	11.7	11.3	10.3	10.0	10.0
60°	1055.5	452.8	22.0	18.2	14.7	12.2	10.3	9.5	8.5	8.2	8.2
62.5°	995.2	360.3	19.4	15.4	13.0	10.5	9.0	7.9	7.0	7.0	7.0
65°	831.6	244.6	16.7	13.4	11.5	9.0	7.7	6.4	6.0	6.0	6.0
67.5°	579.2	136.3	14.2	11.5	9.8	7.4	6.4	5.5	5.3	5.5	5.5
70°	261.0	54.1	12.0	9.5	7.9	6.2	5.5	4.7	5.3	5.3	5.3
72°	78.3	29.0	10.0	7.7	6.4	5.5	4.7	4.5	5.0	5.3	5.3
72.5°	58.1	25.9	9.5	7.4	6.4	5.3	4.5	4.5	5.0	5.3	5.3
75°	29.9	17.7	7.2	5.5	4.7	4.3	3.8	4.3	5.0	5.0	5.0
77.5°	23.5	14.4	6.0	4.3	4.1	3.8	3.5	4.1	4.5	4.5	4.5
80°	22.0	9.5	4.7	4.1	3.5	3.3	3.3	3.5	4.1	4.3	4.3
82.5°	22.2	7.7	4.3	3.8	3.3	2.9	2.9	3.3	3.8	4.1	4.1
85°	14.2	5.3	3.8	3.3	2.9	2.7	2.7	2.9	3.5	3.8	3.8
87.5°	4.7	4.1	3.3	2.9	2.5	2.5	2.5	2.5	2.9	3.3	3.5
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)