

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: P881780

Luminaire Tested: **NAV-SB1B-830-U-T4FT-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P881780
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1B-830-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 3000K, 450mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV FORWARD
THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3734 lumens
Efficiency: N/A
Efficacy: 93.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G1

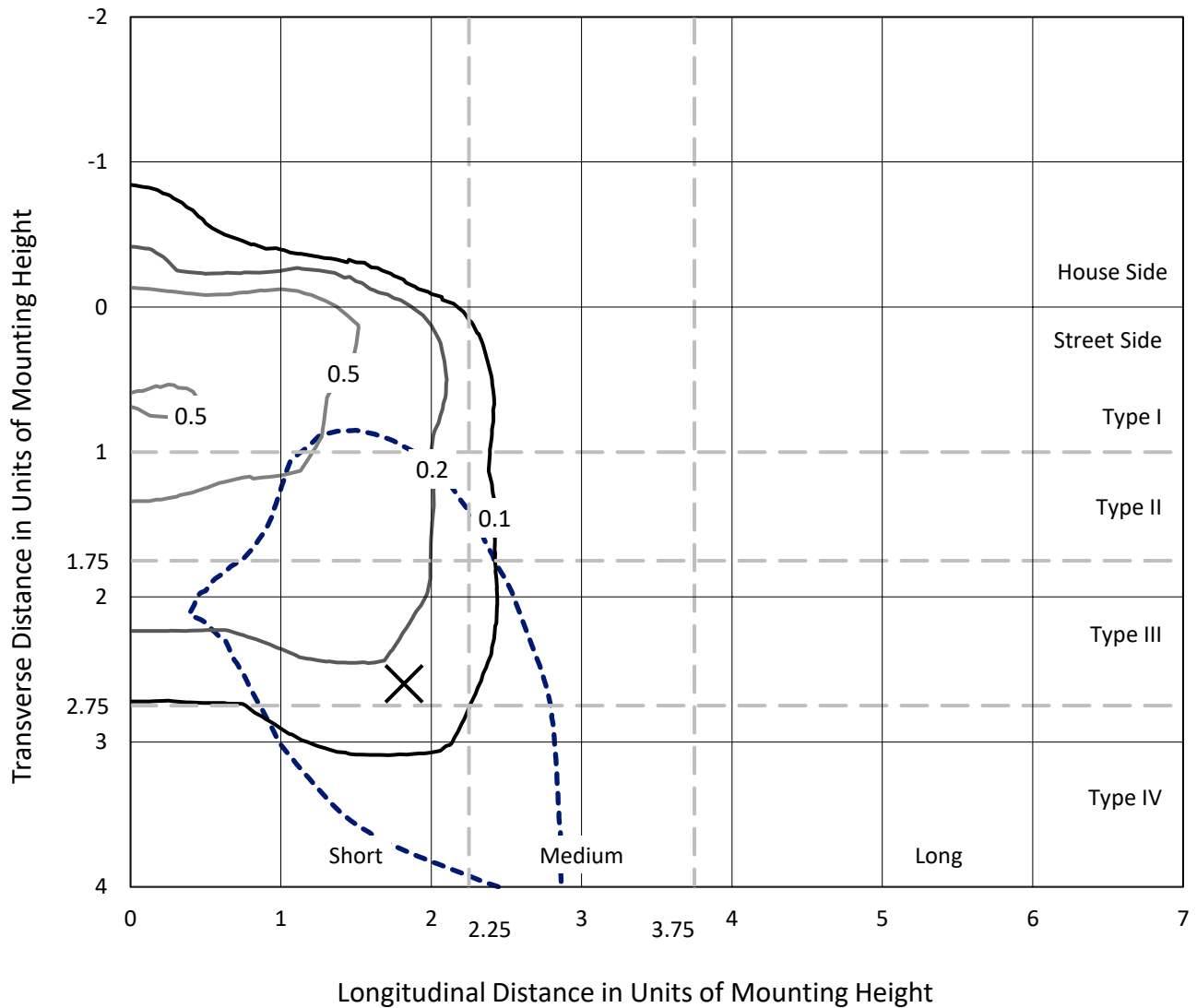
Input Watts (W): 39.8
Input Voltage (V): 120.0
Input Current (Ain): 0.33
Voltage Rise (V): NR
Power Factor: 0.996
Total Harmonic Distortion (THDi): 5.305
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

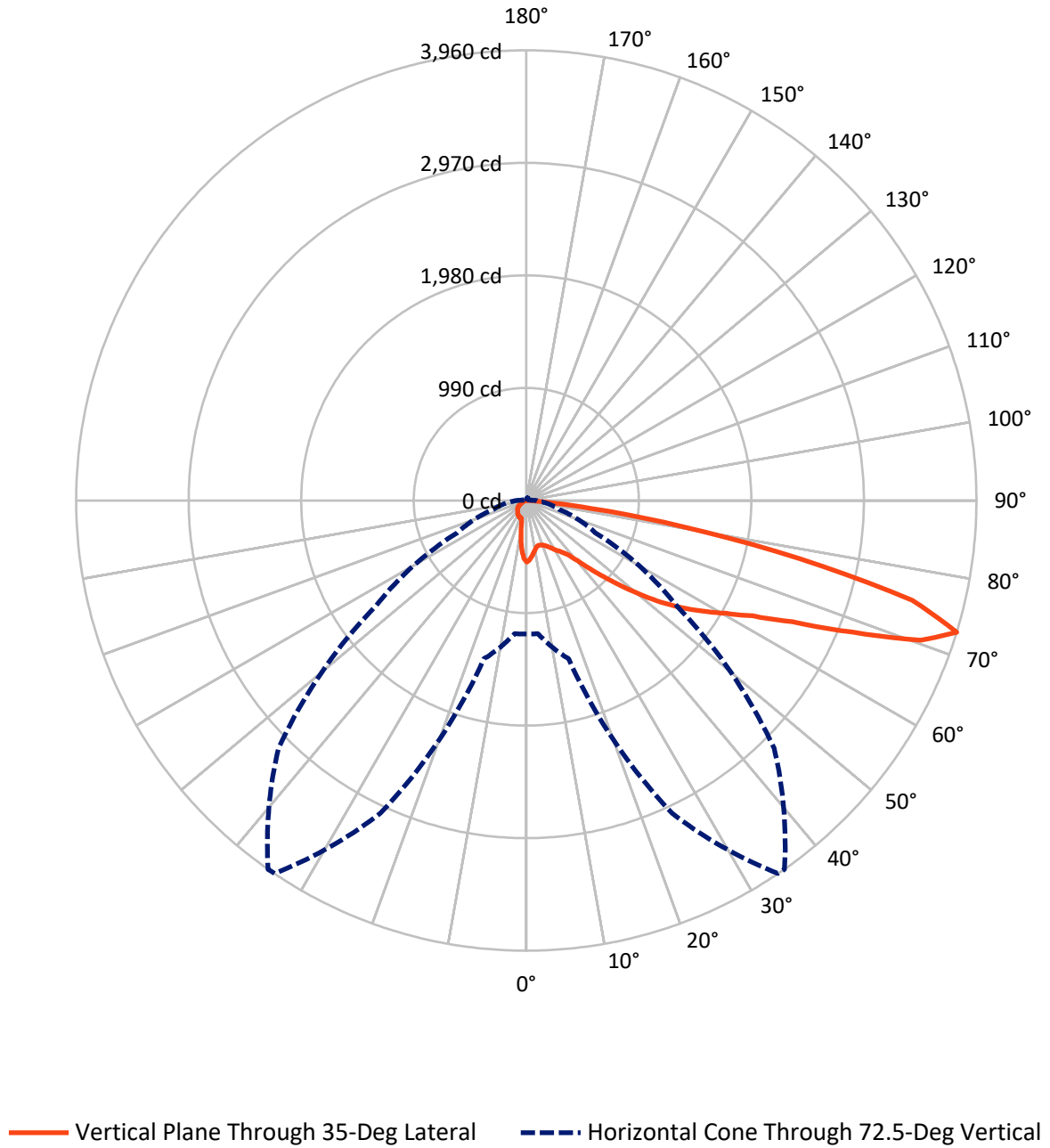
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.9 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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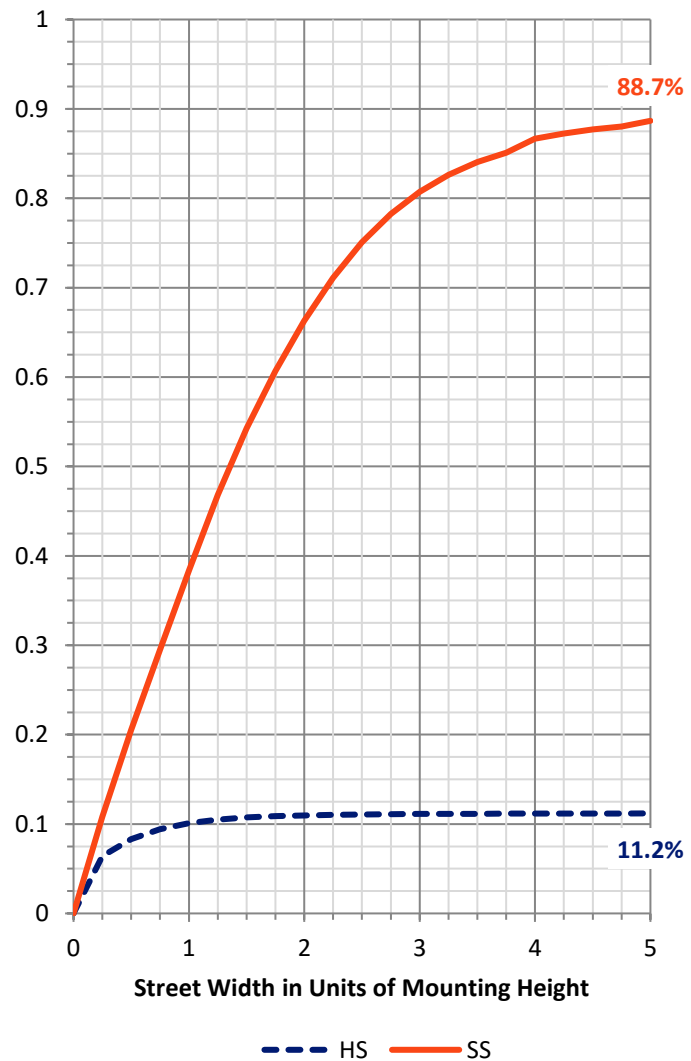
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	420.2	0.0	420.2
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	3313.8	0.0	3313.8
	% Fixture	88.7	0.0	88.7
Total	Lumens	3734.0	0.0	3734.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.5	1.2
10°-20°	104.0	2.8
20°-30°	169.0	4.5
30°-40°	282.0	7.6
40°-50°	533.5	14.3
50°-60°	847.7	22.7
60°-70°	1048.7	28.1
70°-80°	651.9	17.5
80°-90°	52.7	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°	3734.0	100.0
0°-180°	3734.0	100.0

Coefficient of Utilization



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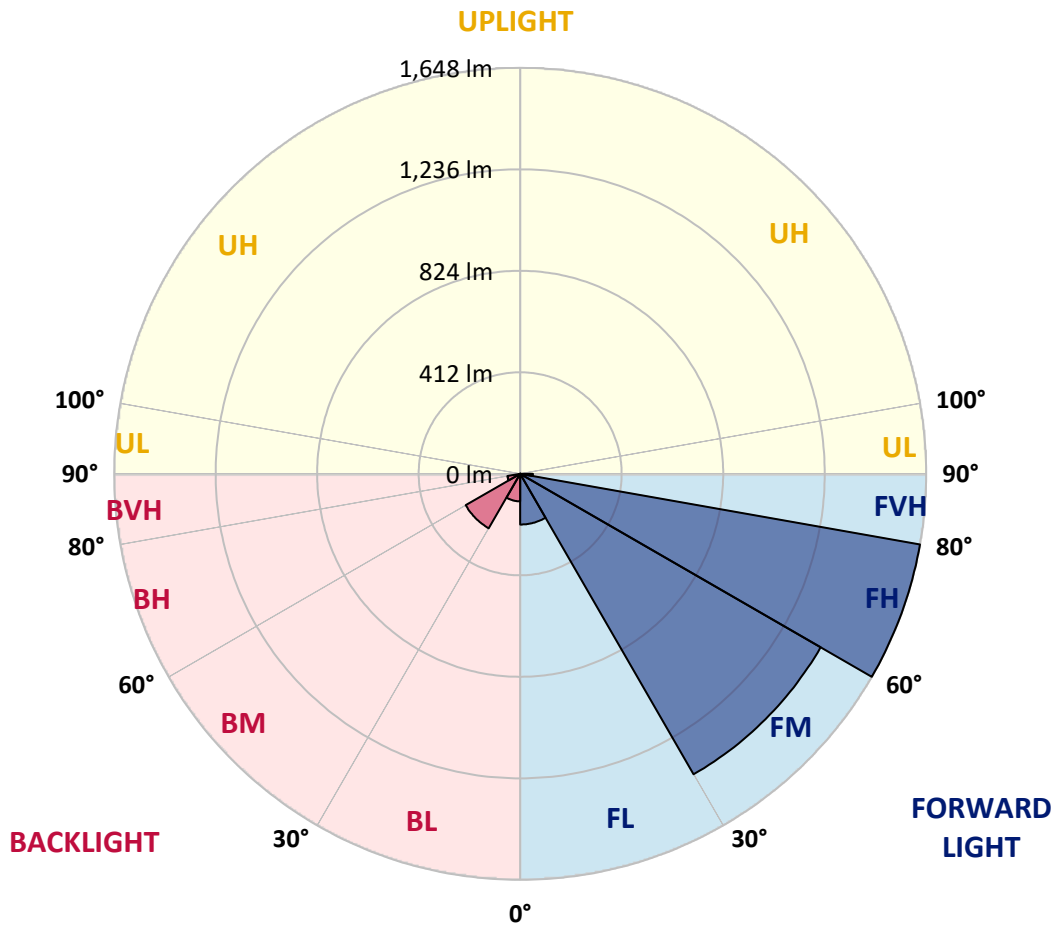
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	205.8	5.5			
FM (30°-60°)	1408.1	37.7			
FH (60°-80°)	1647.9	44.1			G1/1800
FVH (80°-90°)	52.0	1.4			G1/100
BL (0°-30°)	111.7	3.0	B1/500		
BM (30°-60°)	255.1	6.8	B1/1000		
BH (60°-80°)	52.7	1.4	B0/110		G0/110
BVH (80°-90°)	0.7	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 IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	541.2	541.2	541.2	541.2	541.2	541.2	541.2	541.2	541.2	541.2	541.2
2.5°	517.1	521.5	522.3	523.7	523.7	525.3	528.0	531.9	538.2	541.5	543.6
5°	476.6	479.9	484.0	487.3	493.6	494.4	505.1	515.5	530.0	540.9	548.6
7.5°	435.8	439.7	445.1	453.1	461.3	463.8	479.9	497.4	520.4	540.9	553.8
10°	407.1	407.4	412.3	420.3	433.4	436.4	456.1	481.0	509.7	537.6	558.7
12.5°	391.0	392.9	395.1	401.1	413.7	415.6	436.7	465.9	499.0	535.7	564.4
15°	391.0	392.3	393.7	396.7	406.8	408.5	427.1	456.4	493.6	536.5	573.7
17.5°	395.1	397.3	396.2	399.7	410.4	411.5	427.9	453.6	493.3	541.7	588.0
20°	404.9	406.6	404.4	406.6	417.2	419.4	436.4	458.8	498.0	550.8	605.8
22.5°	420.5	421.3	416.1	417.8	428.7	431.5	451.2	473.6	509.2	565.3	629.6
25°	440.2	441.9	433.9	435.8	446.2	449.5	472.2	495.8	527.0	585.2	659.9
27.5°	462.9	463.8	456.9	456.6	470.0	474.7	497.7	523.1	550.8	610.4	698.2
30°	488.9	491.4	484.8	483.7	500.7	504.5	527.2	556.8	585.8	648.2	752.7
32.5°	509.4	511.4	507.5	510.3	527.5	530.5	563.1	604.4	640.8	701.8	826.8
35°	539.0	540.1	531.3	536.3	556.0	563.6	612.0	671.1	710.0	769.1	923.7
37.5°	646.0	646.0	608.8	584.4	603.3	610.1	679.1	755.1	795.4	859.4	1045.7
40°	794.0	791.5	737.1	687.3	684.8	698.2	774.6	861.0	905.6	967.7	1183.0
42.5°	951.9	948.0	873.9	824.6	816.4	821.1	884.8	991.5	1036.9	1099.9	1330.8
45°	1091.9	1090.8	1023.0	956.8	942.0	956.8	1022.4	1144.2	1176.8	1243.0	1478.3
47.5°	1209.3	1209.3	1159.8	1116.6	1108.9	1117.7	1208.8	1313.6	1310.5	1395.4	1621.9
50°	1344.5	1343.4	1296.3	1277.7	1285.6	1298.0	1423.3	1491.9	1449.0	1545.0	1750.2
52.5°	1439.1	1445.7	1429.6	1426.6	1467.0	1488.4	1641.1	1666.5	1572.9	1687.0	1846.3
55°	1514.1	1521.8	1540.4	1561.4	1639.4	1667.3	1852.0	1832.0	1676.6	1810.1	1901.5
57.5°	1620.3	1609.3	1638.0	1679.6	1805.8	1839.4	2056.4	1988.3	1760.1	1910.0	1907.5
60°	1749.1	1750.8	1755.7	1808.2	1971.8	2015.1	2257.8	2136.0	1813.7	1971.3	1840.8
62.5°	1904.0	1906.4	1916.6	1997.3	2194.8	2235.6	2472.3	2256.9	1838.3	1954.1	1668.4
65°	1893.3	1903.7	2016.7	2292.8	2533.8	2574.0	2722.6	2341.7	1801.1	1796.5	1358.4
67.5°	1724.8	1741.7	1930.8	2645.7	3044.9	3089.8	3025.2	2358.4	1640.5	1397.0	886.2
70°	1503.7	1509.7	1737.1	2963.1	3636.7	3682.1	3296.1	2174.9	1244.9	779.2	397.0
72.5°	1174.3	1175.7	1442.4	3036.7	3957.9	3960.4	3083.5	1614.5	669.5	299.3	137.9
75°	838.9	830.7	966.1	2462.7	3482.1	3510.0	2311.7	757.3	255.8	141.5	68.7
77.5°	449.8	458.8	546.7	1460.5	2405.5	2453.1	1261.3	218.3	130.2	96.3	45.4
80°	139.0	146.6	224.1	668.7	1362.5	1391.3	467.6	97.1	90.8	68.7	29.8
82.5°	43.8	45.4	104.5	281.0	565.5	578.7	135.4	55.0	62.1	45.4	17.5
85°	12.6	12.9	46.5	104.8	139.8	142.5	38.0	21.3	35.6	28.2	9.0
87.5°	1.4	4.4	17.5	17.5	12.3	12.0	4.1	4.7	10.1	3.6	1.6
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°	541.2	541.2	541.2	541.2	541.2	541.2	541.2	541.2	541.2	541.2	541.2
2.5°	542.3	542.5	539.0	533.0	526.4	520.9	514.1	508.6	504.8	503.7	505.6
5°	546.1	544.2	534.1	515.7	493.8	475.0	453.9	437.2	426.3	421.6	423.3
7.5°	551.9	546.4	524.2	488.1	446.2	409.0	371.3	342.0	323.4	314.1	315.5
10°	556.8	545.8	507.8	448.2	384.1	327.8	276.9	241.6	221.9	212.6	212.9
12.5°	561.4	545.6	486.5	400.8	314.1	245.1	197.8	180.3	174.8	172.9	172.4
15°	570.2	546.4	459.6	346.7	244.3	185.2	168.0	167.7	168.8	168.3	168.0
17.5°	582.2	547.2	429.3	289.2	188.5	163.3	162.5	165.0	166.6	165.8	165.5
20°	597.8	550.5	397.0	232.3	162.0	157.9	159.8	162.0	163.3	162.0	161.7
22.5°	619.7	556.2	361.7	186.6	153.5	154.6	156.2	158.7	160.1	158.1	157.9
25°	646.5	565.3	327.0	162.2	149.4	150.8	153.2	156.0	157.6	155.7	155.4
27.5°	681.3	579.8	294.9	156.8	145.3	146.1	149.7	153.8	156.0	153.5	153.5
30°	731.6	603.6	267.3	159.2	142.8	140.9	145.8	151.6	154.0	151.8	151.6
32.5°	798.4	637.2	250.3	163.1	141.7	134.9	139.5	146.9	151.0	149.7	149.7
35°	885.9	688.4	243.8	167.4	140.9	128.6	131.9	139.8	146.9	148.3	148.3
37.5°	992.1	759.5	245.7	169.4	138.4	123.4	125.0	131.9	141.2	145.6	146.6
40°	1112.7	842.4	256.6	167.4	135.7	119.0	119.3	124.5	132.7	139.3	141.5
42.5°	1237.2	939.3	276.9	160.3	133.2	115.2	114.4	117.9	123.4	128.0	130.0
45°	1355.7	1038.9	296.9	150.5	130.2	111.4	109.4	110.8	111.9	113.8	114.9
47.5°	1459.1	1108.9	291.1	141.5	126.1	107.0	103.7	103.1	99.9	99.6	99.3
50°	1530.5	1124.2	258.6	132.4	120.1	102.1	96.9	93.6	87.8	85.1	85.4
52.5°	1553.2	1063.8	211.2	123.4	110.3	95.5	88.1	82.9	75.8	73.3	73.1
55°	1523.1	945.3	168.8	112.4	96.6	86.7	78.5	71.7	65.9	62.9	62.9
57.5°	1449.5	794.5	133.5	99.6	82.1	76.9	68.7	61.8	56.9	53.9	53.4
60°	1327.5	630.9	105.6	84.3	70.0	66.2	57.7	53.4	49.0	45.4	44.6
62.5°	1142.3	450.3	82.9	66.8	58.6	54.2	49.2	46.0	40.8	35.8	35.0
65°	891.4	275.5	64.0	49.0	47.1	44.9	41.9	38.9	32.6	27.6	26.8
67.5°	562.2	130.5	45.7	36.9	37.2	36.1	34.7	32.3	27.6	23.3	22.7
70°	247.6	63.2	30.1	28.2	27.6	27.6	28.7	27.9	23.5	19.4	18.6
72.5°	84.3	33.9	22.4	21.3	20.0	19.7	24.1	23.3	18.9	15.0	14.2
75°	44.0	22.7	16.4	15.3	12.0	14.5	19.2	18.1	13.4	9.8	9.0
77.5°	28.7	16.1	11.2	9.8	6.8	9.6	14.2	12.6	7.9	4.9	4.4
80°	18.1	10.7	6.6	4.7	3.3	5.2	7.7	5.5	3.0	1.1	0.8
82.5°	9.6	5.5	2.5	1.6	1.4	1.6	1.9	1.4	0.5	0.0	0.0
85°	3.8	1.9	0.8	0.5	0.3	0.0	0.5	0.3	0.0	0.0	0.0
87.5°	1.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)