

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: P961422

Luminaire Tested: **NAV-SB2A-740-U-AFL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961422
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-15)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2A-740-U-AFL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 4000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8294.3 lumens
Efficiency: N/A
Efficacy: 144.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G1

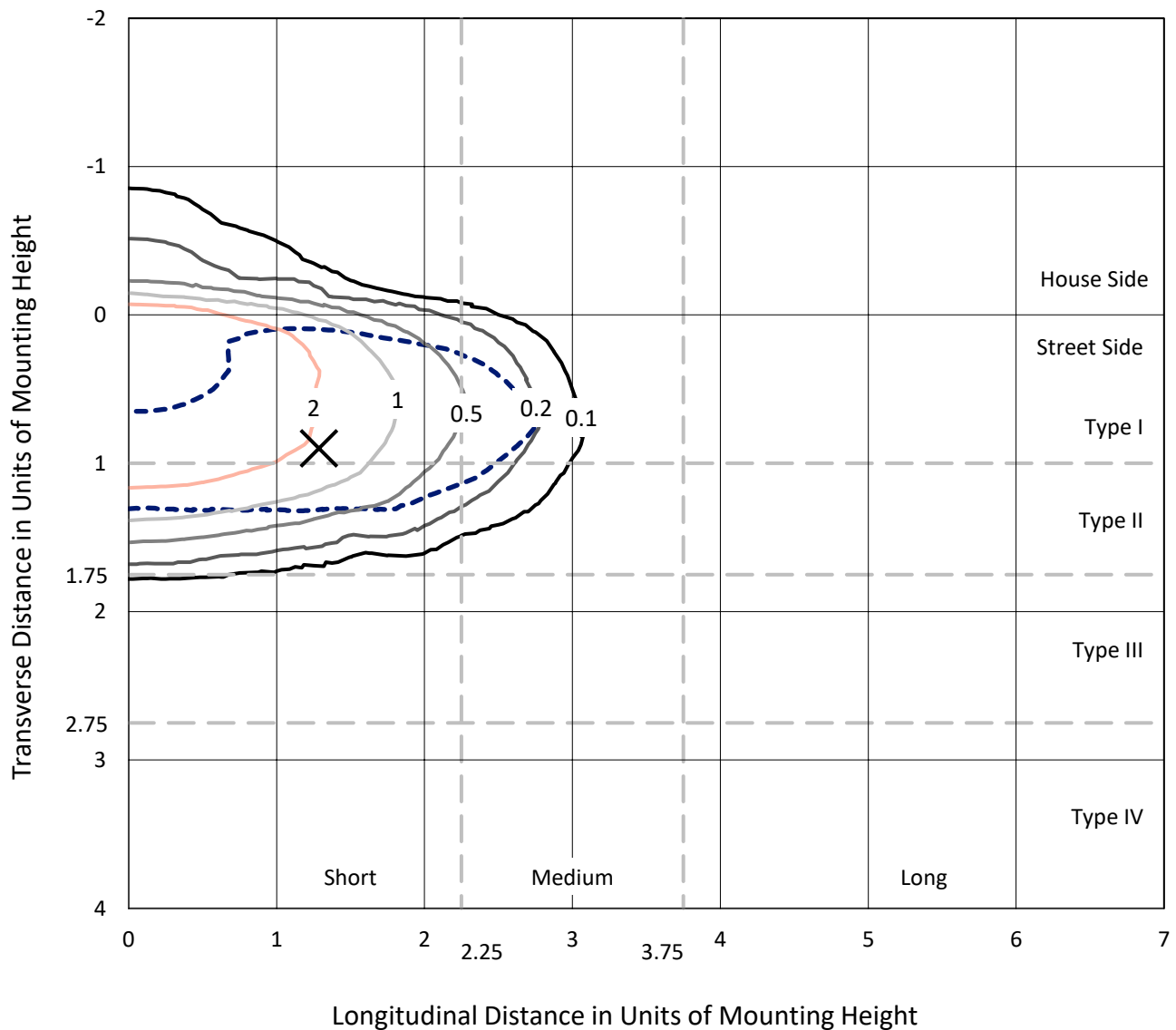
Input Watts (W): 57.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

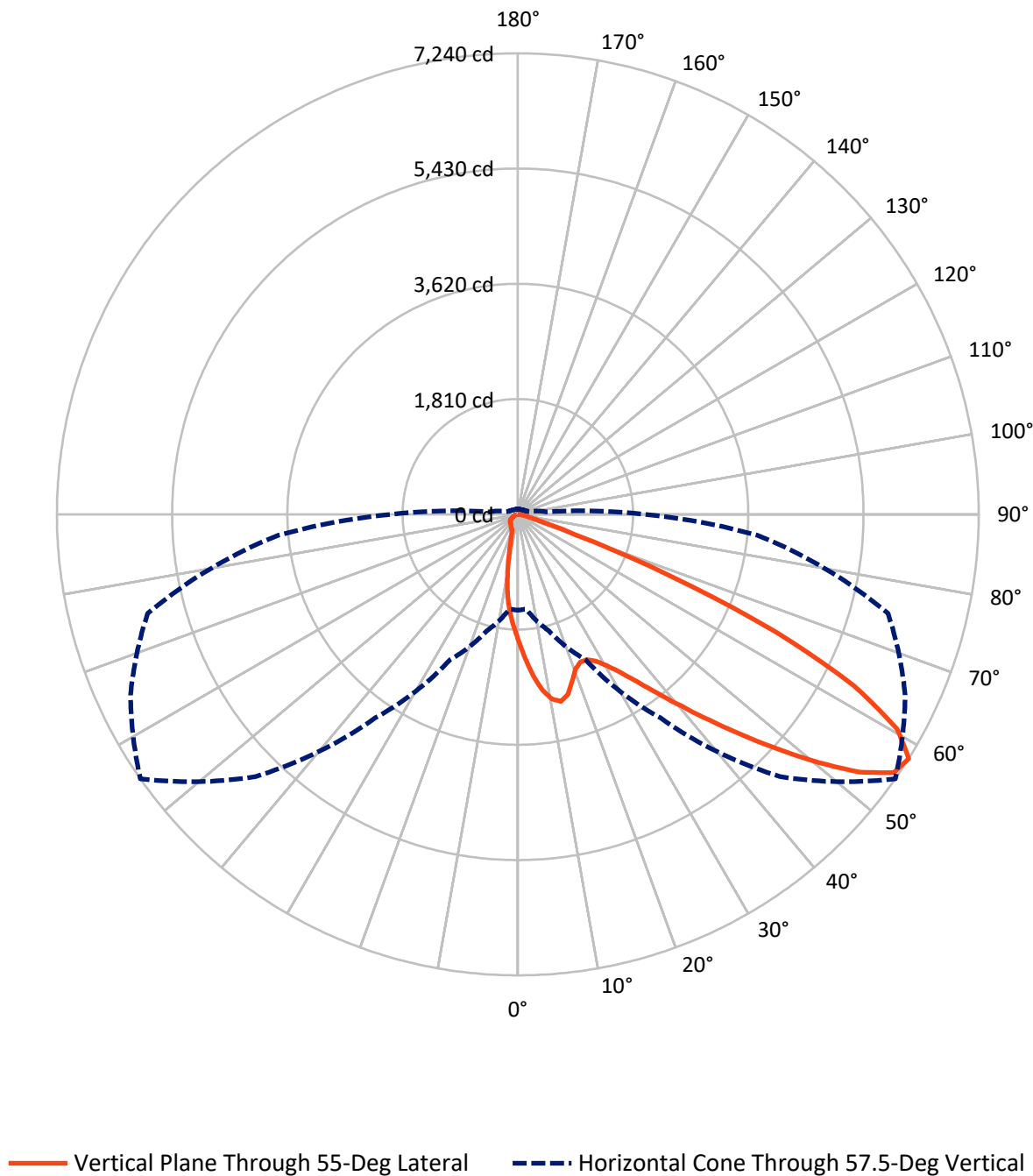


Based on 25 foot mounting height. Maximum calculated value = 4.6 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	647.7	0.0	647.7
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	7646.6	0.0	7646.6
	% Fixture	92.2	0.0	92.2
Total	Lumens	8294.3	0.0	8294.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	186.0	2.2
10°-20°	449.2	5.4
20°-30°	718.7	8.7
30°-40°	1216.5	14.7
40°-50°	1997.2	24.1
50°-60°	2195.1	26.5
60°-70°	1259.1	15.2
70°-80°	257.3	3.1
80°-90°	15.2	0.2
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°	8294.3	100.0
0°-180°	8294.3	100.0

Coefficient of Utilization



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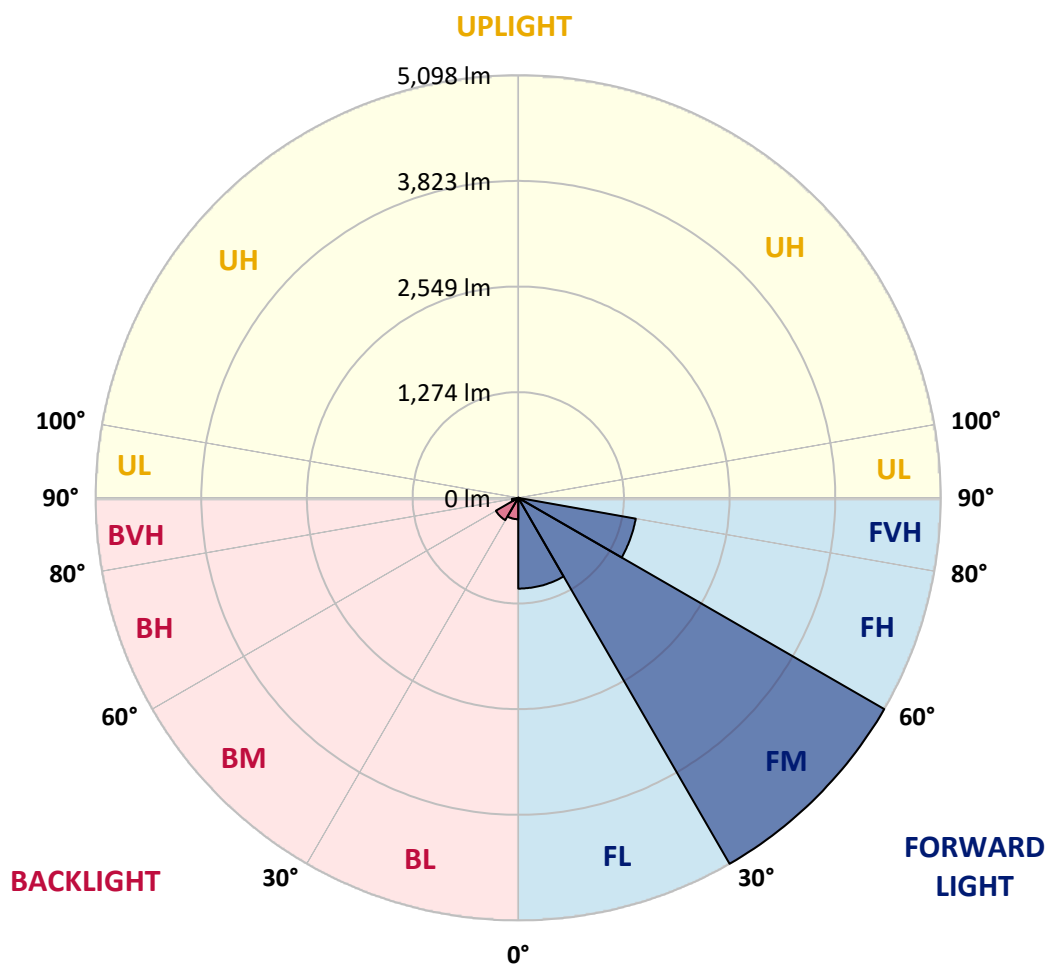
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1095.3	13.2			
FM	(30°-60°)	5097.7	61.5			
FH	(60°-80°)	1439.4	17.4			G1/1800
FVH	(80°-90°)	14.2	0.2			G1/100
BL	(0°-30°)	258.6	3.1	B1/500		
BM	(30°-60°)	311.1	3.8	B1/1000		
BH	(60°-80°)	77.0	0.9	B0/110		G0/110
BVH	(80°-90°)	1.0	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



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1998.7	1998.7	1998.7	1998.7	1998.7	1998.7	1998.7	1998.7	1998.7	1998.7	1998.7
2.5°	2480.0	2448.8	2444.2	2438.1	2378.7	2334.2	2269.8	2199.2	2119.9	2039.1	2003.4
5°	2865.1	2840.6	2836.0	2807.3	2739.8	2664.1	2549.6	2404.9	2257.0	2083.1	2008.5
7.5°	2939.8	2935.2	2956.1	2955.1	2946.0	2886.1	2789.4	2617.0	2395.1	2137.3	2021.7
10°	2606.8	2618.6	2681.0	2735.7	2883.5	2969.4	2948.5	2806.2	2537.3	2199.2	2036.6
12.5°	2303.6	2289.7	2334.2	2396.1	2567.9	2823.7	3014.4	2964.3	2700.0	2269.2	2058.6
15°	2113.2	2107.7	2132.7	2161.3	2292.3	2550.1	2937.8	3092.7	2856.4	2352.2	2091.8
17.5°	2052.5	2047.8	2055.5	2062.6	2147.6	2347.0	2755.1	3171.5	3006.2	2446.8	2128.6
20°	2102.1	2095.9	2094.9	2089.3	2124.5	2260.5	2590.0	3177.1	3140.8	2532.7	2160.3
22.5°	2246.8	2239.6	2214.5	2192.1	2195.1	2272.3	2516.3	3120.8	3242.1	2612.9	2180.3
25°	2509.1	2497.4	2445.2	2369.5	2321.4	2354.2	2527.5	3046.7	3338.7	2675.9	2170.5
27.5°	2837.5	2822.1	2755.1	2642.7	2532.7	2492.8	2608.8	2995.6	3419.0	2723.9	2149.6
30°	3159.2	3139.3	3073.3	2985.8	2825.2	2699.4	2755.6	3018.0	3514.6	2774.1	2122.0
32.5°	3506.4	3487.6	3400.0	3291.7	3158.6	2989.4	2956.6	3128.0	3631.8	2844.2	2102.6
35°	3945.7	3916.1	3791.9	3644.1	3502.8	3331.6	3228.7	3317.7	3787.8	2951.1	2113.2
37.5°	4445.9	4406.1	4272.1	4068.0	3883.9	3692.2	3560.1	3578.6	4016.4	3094.3	2146.6
40°	4917.5	4881.3	4757.4	4565.1	4334.0	4101.2	3960.6	3919.7	4332.0	3268.6	2204.9
42.5°	5200.3	5167.6	5115.5	5034.2	4839.2	4601.9	4424.5	4336.1	4705.3	3477.3	2275.9
45°	5216.2	5187.5	5257.6	5352.2	5313.9	5155.9	4939.5	4777.4	5080.2	3673.2	2349.6
47.5°	4962.5	4943.1	5155.9	5486.2	5650.9	5717.4	5518.0	5182.0	5389.6	3813.8	2379.7
50°	4271.1	4263.9	4701.7	5308.3	5779.4	6209.4	6128.2	5558.4	5629.5	3886.5	2351.1
52.5°	3703.3	3677.3	3932.5	4738.6	5592.6	6468.3	6724.5	5927.7	5797.2	3900.2	2284.1
55°	2808.8	2785.8	3106.0	3785.2	4990.6	6376.2	7160.8	6308.7	5917.4	3865.0	2163.9
57.5°	1506.7	1492.4	1897.0	2519.3	3901.3	5823.8	7239.5	6711.7	6018.7	3771.4	1995.7
60°	586.6	584.0	735.4	1222.3	2371.0	4738.1	6842.1	6953.6	6082.0	3656.3	1855.0
62.5°	355.0	362.6	387.1	548.8	1047.4	2943.4	5926.1	6678.4	6124.6	3550.9	1738.9
65°	293.6	294.1	297.1	376.9	501.7	1231.5	4461.3	5773.2	6019.7	3363.2	1574.2
67.5°	251.6	256.2	268.0	299.2	353.9	540.1	2568.4	4472.1	5382.0	2926.5	1317.4
70°	198.4	204.6	219.5	246.0	273.1	338.0	949.3	2975.6	4111.5	2205.9	996.3
72.5°	167.3	166.8	174.4	200.0	216.9	237.8	365.2	1667.3	2389.5	1053.1	493.0
75°	129.4	134.5	144.2	167.3	177.4	172.4	197.9	609.2	856.2	319.2	167.8
77.5°	101.3	105.4	114.1	136.5	146.8	122.3	114.1	217.9	275.1	114.6	75.6
80°	45.5	49.1	77.7	100.8	119.7	84.4	61.9	111.5	122.3	52.2	38.3
82.5°	8.2	13.8	45.5	53.2	61.4	54.7	32.2	57.8	59.9	21.0	13.3
85°	0.5	1.0	15.9	19.5	24.6	17.9	9.7	23.1	20.0	7.2	5.1
87.5°	0.0	0.0	0.0	0.5	0.5	2.6	3.1	4.1	3.1	2.6	2.0
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1998.7	1998.7	1998.7	1998.7	1998.7	1998.7	1998.7	1998.7	1998.7	1998.7
2.5°	1966.5	1893.9	1823.3	1765.5	1731.7	1674.4	1636.6	1630.5	1614.6	1628.4
5°	1928.6	1798.8	1667.3	1549.7	1453.0	1328.2	1235.1	1195.8	1161.5	1173.2
7.5°	1910.7	1705.7	1501.1	1300.1	1093.5	894.0	745.7	683.8	636.7	643.4
10°	1886.7	1609.0	1288.3	981.4	704.8	507.9	405.6	367.8	346.8	347.3
12.5°	1868.3	1493.4	1041.3	665.4	429.1	324.2	292.5	283.3	277.2	277.7
15°	1859.1	1357.4	797.3	443.4	306.9	274.6	267.0	262.9	258.8	258.3
17.5°	1843.8	1206.0	583.5	323.7	268.5	257.3	250.6	246.0	240.9	239.8
20°	1820.7	1034.1	426.5	273.6	251.6	242.9	233.7	227.6	221.5	220.5
22.5°	1778.3	852.6	327.8	253.2	239.3	229.6	218.4	211.3	205.1	204.1
25°	1699.6	682.2	276.1	240.4	228.6	216.9	204.6	194.9	189.2	188.2
27.5°	1599.8	536.0	250.6	228.6	214.8	204.1	190.2	181.0	175.9	174.9
30°	1482.1	412.8	235.7	215.4	198.4	189.2	176.9	169.3	166.3	166.3
32.5°	1355.4	329.8	229.6	202.0	184.1	173.8	164.2	161.1	160.1	159.6
35°	1236.1	286.4	226.5	191.3	171.4	161.6	157.5	158.1	160.1	160.1
37.5°	1130.3	272.6	225.0	183.6	160.1	151.4	154.0	158.6	156.5	156.5
40°	1034.6	274.1	224.0	177.9	150.9	145.8	150.9	147.3	142.2	141.7
42.5°	961.6	286.9	222.0	173.4	145.2	141.7	139.6	134.0	133.5	134.5
45°	908.4	298.2	221.5	171.4	139.1	132.4	129.9	124.2	134.5	137.0
47.5°	845.4	298.2	221.5	164.2	128.8	126.3	122.3	116.1	126.3	128.8
50°	764.1	279.2	212.8	156.0	120.7	119.2	112.0	104.3	102.3	103.8
52.5°	661.3	245.0	190.8	144.7	112.5	109.5	100.8	95.1	93.6	93.6
55°	544.2	205.1	161.1	128.3	103.8	98.2	92.0	89.5	87.9	86.9
57.5°	442.4	168.3	129.4	114.1	95.6	88.5	86.4	83.3	80.8	79.2
60°	363.2	132.4	106.9	101.3	87.4	80.8	80.3	76.2	69.6	68.6
62.5°	280.2	97.2	90.0	87.9	79.2	73.7	72.7	64.5	54.2	52.2
65°	197.9	75.6	72.7	77.2	70.6	65.5	62.9	50.6	39.9	38.3
67.5°	139.1	63.4	57.3	67.5	61.4	54.7	53.2	42.9	33.2	32.2
70°	99.2	51.7	47.0	57.8	49.1	48.1	45.0	35.8	27.1	26.0
72.5°	70.1	39.4	36.3	50.1	33.7	41.4	36.8	27.6	20.5	19.5
75°	51.7	28.1	25.5	29.1	24.6	31.2	26.0	18.4	12.8	12.3
77.5°	37.8	17.9	15.4	14.3	14.3	19.5	14.3	7.7	5.6	5.1
80°	26.5	8.2	7.2	6.1	5.6	4.6	2.0	1.0	0.5	0.5
82.5°	15.9	3.6	3.6	2.6	1.5	0.0	0.0	0.0	0.0	0.0
85°	3.6	1.5	1.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.5	0.5	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

(END OF REPORT)