

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: P966313

Luminaire Tested: **NAV-SB4B-830-U-T4FT-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966313
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4B-830-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15737.9 lumens
Efficiency: N/A
Efficacy: 107.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

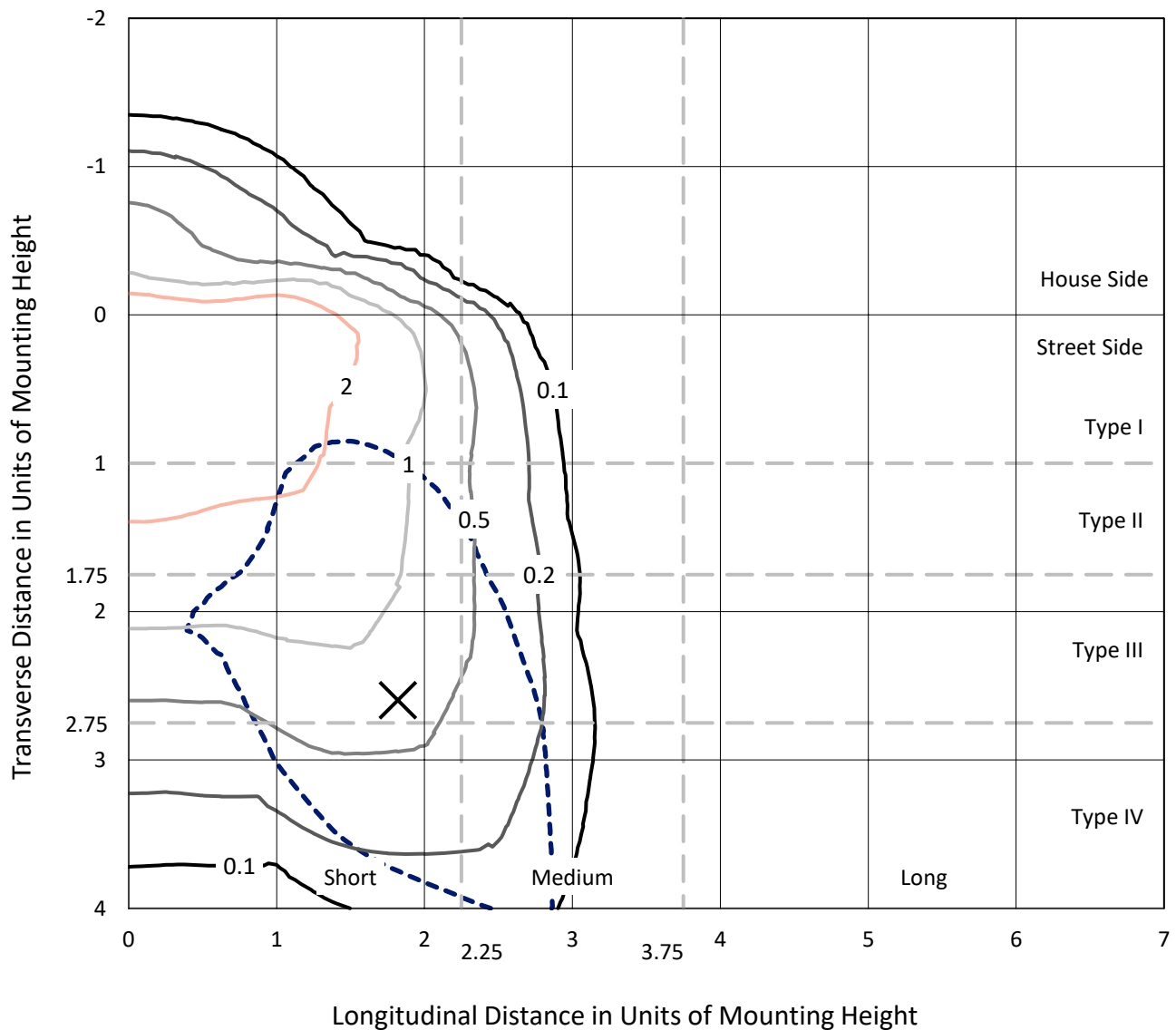
Input Watts (W): 147
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

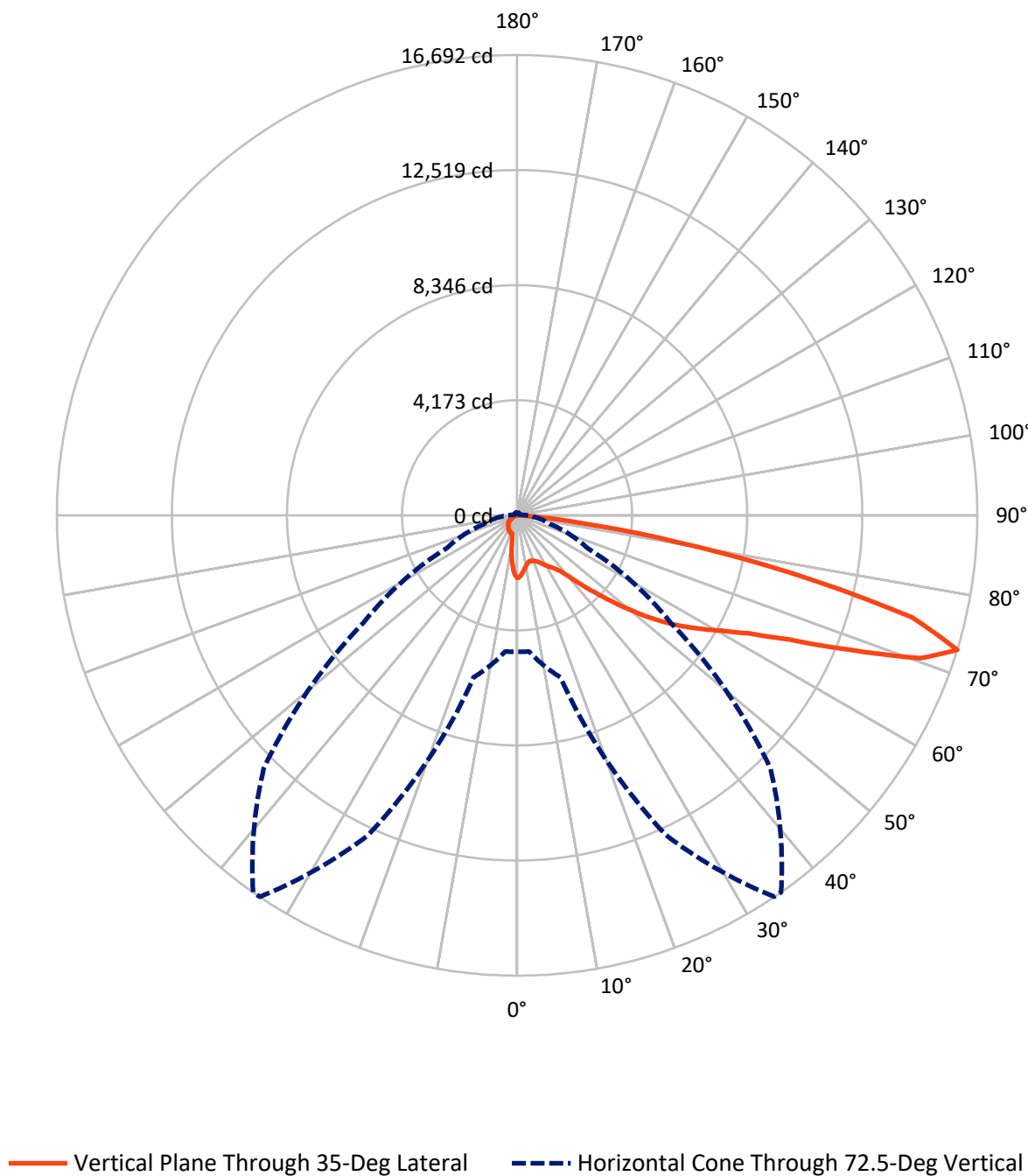
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.6 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	1771.2	0.0	1771.2
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	13966.6	0.0	13966.6
	% Fixture	88.7	0.0	88.7
Total	Lumens	15737.9	0.0	15737.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	187.4	1.2
10°-20°	438.5	2.8
20°-30°	712.3	4.5
30°-40°	1188.5	7.6
40°-50°	2248.6	14.3
50°-60°	3573.0	22.7
60°-70°	4420.0	28.1
70°-80°	2747.5	17.5
80°-90°	222.1	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°	15737.9	100.0
0°-180°	15737.9	100.0

Coefficient of Utilization



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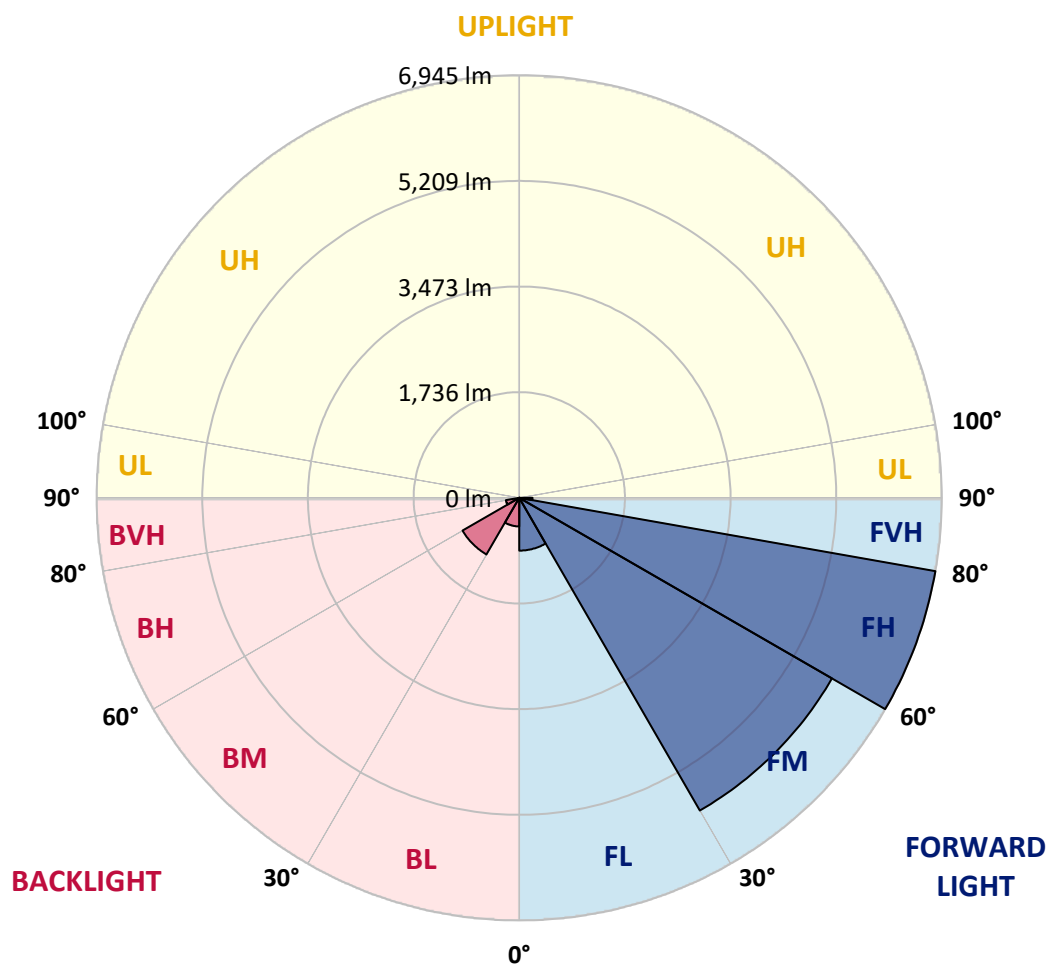
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	867.6	5.5			
FM	(30°-60°)	5934.7	37.7			
FH	(60°-80°)	6945.3	44.1			G3/7500
FVH	(80°-90°)	219.0	1.4			G2/225
BL	(0°-30°)	470.6	3.0	B1/500		
BM	(30°-60°)	1075.3	6.8	B2/2500		
BH	(60°-80°)	222.3	1.4	B1/500		G1/500
BVH	(80°-90°)	3.0	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	2280.9	2280.9	2280.9	2280.9	2280.9	2280.9	2280.9	2280.9	2280.9	2280.9	2280.9
2.5°	2179.5	2197.9	2201.4	2207.1	2207.1	2214.1	2225.6	2241.8	2268.2	2282.1	2291.3
5°	2008.8	2022.6	2040.0	2053.8	2080.3	2083.7	2128.7	2172.6	2233.7	2279.8	2312.1
7.5°	1837.0	1853.1	1876.2	1909.6	1944.2	1954.6	2022.6	2096.4	2193.3	2279.8	2334.0
10°	1715.8	1717.1	1737.8	1771.2	1826.6	1839.3	1922.3	2027.2	2148.3	2266.0	2354.7
12.5°	1647.9	1655.9	1665.1	1690.5	1743.5	1751.6	1840.4	1963.8	2103.4	2257.9	2378.9
15°	1647.9	1653.6	1659.4	1672.1	1714.7	1721.7	1800.1	1923.5	2080.3	2261.4	2418.2
17.5°	1665.1	1674.3	1669.7	1684.8	1729.7	1734.3	1803.5	1911.9	2079.1	2283.3	2478.1
20°	1706.6	1713.6	1704.4	1713.6	1758.6	1767.8	1839.3	1933.9	2098.8	2321.3	2553.1
22.5°	1772.4	1775.8	1754.0	1760.8	1807.0	1818.6	1901.6	1996.1	2146.0	2382.4	2653.4
25°	1855.5	1862.3	1828.9	1837.0	1880.8	1894.6	1990.3	2089.6	2221.0	2466.6	2781.4
27.5°	1951.2	1954.6	1925.8	1924.6	1981.1	2000.7	2097.6	2204.9	2321.3	2572.6	2942.9
30°	2060.7	2071.1	2043.4	2038.8	2110.3	2126.5	2222.1	2346.6	2468.9	2731.8	3172.4
32.5°	2147.2	2155.3	2139.1	2150.7	2223.3	2235.9	2373.2	2547.3	2700.7	2957.8	3484.8
35°	2271.7	2276.3	2239.4	2260.2	2343.3	2375.5	2579.6	2828.7	2992.5	3241.6	3893.1
37.5°	2722.6	2722.6	2565.8	2463.2	2542.7	2571.5	2862.1	3182.7	3352.3	3622.0	4407.4
40°	3346.4	3336.1	3106.6	2896.8	2886.4	2942.9	3264.6	3629.0	3816.9	4078.7	4986.2
42.5°	4011.8	3995.7	3683.1	3475.6	3441.0	3460.6	3729.3	4179.0	4370.5	4635.7	5608.9
45°	4602.2	4597.6	4311.7	4032.6	3970.3	4032.6	4309.3	4822.5	4959.8	5238.8	6230.5
47.5°	5096.9	5096.9	4888.2	4706.0	4673.7	4710.6	5094.7	5536.3	5523.6	5881.1	6835.9
50°	5666.6	5662.0	5463.7	5385.2	5418.7	5470.5	5998.7	6288.2	6107.2	6511.8	7376.7
52.5°	6065.6	6093.3	6025.3	6012.5	6183.2	6273.2	6916.6	7023.9	6629.5	7110.3	7781.5
55°	6381.5	6413.8	6492.2	6581.0	6909.7	7027.3	7805.7	7721.5	7066.6	7629.3	8014.5
57.5°	6829.0	6782.8	6904.0	7079.3	7610.8	7752.7	8667.1	8380.0	7418.2	8050.1	8039.8
60°	7372.1	7379.1	7399.8	7621.2	8310.8	8492.9	9515.8	9002.7	7644.2	8308.4	7758.4
62.5°	8024.8	8035.2	8077.8	8418.0	9250.6	9422.4	10419.9	9512.4	7748.1	8235.9	7031.9
65°	7979.8	8023.7	8499.9	9663.5	10679.4	10848.9	11475.1	9869.8	7591.3	7571.6	5725.4
67.5°	7269.5	7340.9	8137.8	11151.0	12833.5	13022.6	12750.5	9940.2	6914.3	5888.0	3735.1
70°	6337.8	6363.1	7321.4	12488.7	15327.7	15519.2	13892.0	9166.5	5246.9	3284.2	1673.2
72.5°	4949.3	4955.2	6079.5	12798.9	16681.6	16691.9	12996.1	6804.8	2821.7	1261.6	581.2
75°	3535.5	3501.0	4071.8	10379.6	14676.3	14793.8	9743.0	3192.0	1078.2	596.1	289.5
77.5°	1895.7	1933.9	2304.0	6155.5	10138.6	10339.2	5316.1	920.2	548.9	405.9	191.5
80°	585.8	618.1	944.4	2818.3	5742.7	5863.8	1970.8	409.4	382.8	289.5	125.7
82.5°	184.5	191.5	440.5	1184.3	2383.5	2438.9	570.8	231.8	261.8	191.5	73.8
85°	53.1	54.2	196.1	441.7	589.3	600.8	160.3	90.0	150.0	118.8	38.0
87.5°	5.7	18.4	73.8	73.8	51.9	50.7	17.3	19.6	42.6	15.0	7.0
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2280.9	2280.9	2280.9	2280.9	2280.9	2280.9	2280.9	2280.9	2280.9	2280.9	2280.9
2.5°	2285.5	2286.7	2271.7	2246.4	2218.7	2195.7	2166.7	2143.7	2127.6	2123.0	2131.1
5°	2301.7	2293.6	2251.0	2173.7	2081.5	2001.9	1913.1	1842.7	1796.6	1777.0	1783.9
7.5°	2325.9	2302.9	2209.5	2057.3	1880.8	1723.9	1564.9	1441.5	1363.0	1323.8	1329.6
10°	2346.6	2300.5	2140.3	1888.9	1619.0	1381.5	1167.0	1018.2	935.2	896.0	897.2
12.5°	2366.3	2299.4	2050.3	1689.4	1323.8	1033.2	833.7	759.9	736.9	728.8	726.5
15°	2403.2	2302.9	1937.4	1461.0	1029.8	780.6	708.1	706.8	711.5	709.2	708.1
17.5°	2454.0	2306.4	1809.3	1218.9	794.5	688.4	685.0	695.4	702.2	698.8	697.6
20°	2519.7	2320.2	1673.2	979.1	682.6	665.3	673.4	682.6	688.4	682.6	681.5
22.5°	2611.9	2344.4	1524.5	786.5	646.9	651.5	658.5	668.8	674.6	666.6	665.3
25°	2724.9	2382.4	1378.0	683.8	629.7	635.4	645.8	657.3	664.2	656.1	655.0
27.5°	2871.3	2443.5	1243.1	660.7	612.3	615.8	630.8	648.1	657.3	646.9	646.9
30°	3083.5	2543.8	1126.7	671.2	602.0	593.9	614.6	638.9	649.2	640.0	638.9
32.5°	3364.9	2685.7	1055.1	687.3	597.4	568.5	588.1	619.2	636.5	630.8	630.8
35°	3733.9	2901.4	1027.5	705.7	593.9	542.0	555.9	589.3	619.2	625.0	625.0
37.5°	4181.4	3201.2	1035.6	713.8	583.5	520.1	527.0	555.9	595.0	613.5	618.1
40°	4689.9	3550.6	1081.7	705.7	571.9	501.6	502.8	524.7	559.2	586.9	596.1
42.5°	5214.6	3958.8	1167.0	675.8	561.6	485.4	482.1	497.0	520.1	539.7	547.8
45°	5713.9	4378.5	1251.2	634.3	548.9	469.3	461.2	467.0	471.6	479.7	484.3
47.5°	6149.8	4673.7	1226.9	596.1	531.6	450.9	437.1	434.7	420.9	419.7	418.6
50°	6450.7	4738.3	1089.8	558.1	506.2	430.1	408.3	394.4	370.1	358.6	359.8
52.5°	6546.5	4483.5	890.2	520.1	464.7	402.4	371.4	349.4	319.4	309.0	307.9
55°	6419.6	3984.2	711.5	474.0	407.0	365.5	331.0	302.2	277.9	265.3	265.3
57.5°	6109.4	3348.8	562.7	419.7	345.9	324.0	289.5	260.7	239.8	227.1	224.9
60°	5595.1	2659.2	445.2	355.2	295.2	279.1	243.3	224.9	206.4	191.5	188.0
62.5°	4814.4	1898.1	349.4	281.4	246.8	228.4	207.6	193.7	171.8	151.1	147.6
65°	3756.9	1161.2	269.9	206.4	198.3	189.1	176.4	163.8	137.2	116.4	113.1
67.5°	2369.7	550.0	192.6	155.7	156.8	152.2	146.5	136.1	116.4	98.0	95.7
70°	1043.7	266.4	126.9	118.8	116.4	116.4	121.1	117.7	99.2	81.9	78.4
72.5°	355.2	143.0	94.6	90.0	84.2	83.0	101.5	98.0	79.5	63.4	60.0
75°	185.6	95.7	69.2	64.6	50.7	61.1	80.8	76.2	56.5	41.5	38.0
77.5°	121.1	68.1	47.3	41.5	28.8	40.4	60.0	53.1	33.4	20.8	18.4
80°	76.2	45.0	27.7	19.6	13.8	21.9	32.3	23.1	12.7	4.6	3.5
82.5°	40.4	23.1	10.4	7.0	5.7	7.0	8.1	5.7	2.4	0.0	0.0
85°	16.2	8.1	3.5	2.4	1.1	0.0	2.4	1.1	0.0	0.0	0.0
87.5°	5.7	1.1	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)