

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: P960899

Luminaire Tested: **NAV-SB1D-740-U-SL2**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P960899
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-10)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1D-740-U-SL2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 70 CRI, 4000K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE II SPILL LIGHT
ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10971.6 lumens
Efficiency: N/A
Efficacy: 137.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

Input Watts (W): 79.6
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

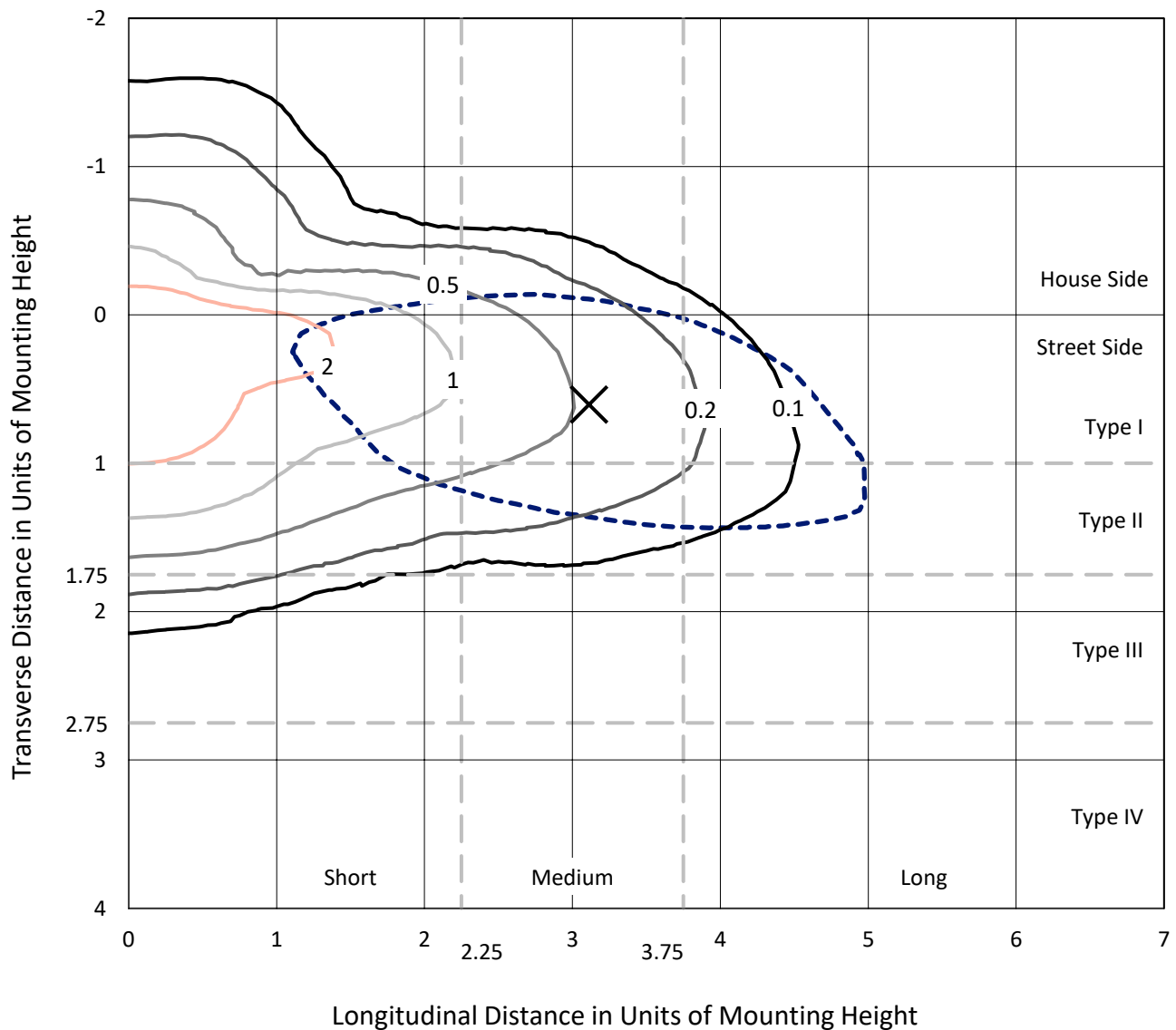


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Iso-Footcandle Lines of Horizontal Illumination

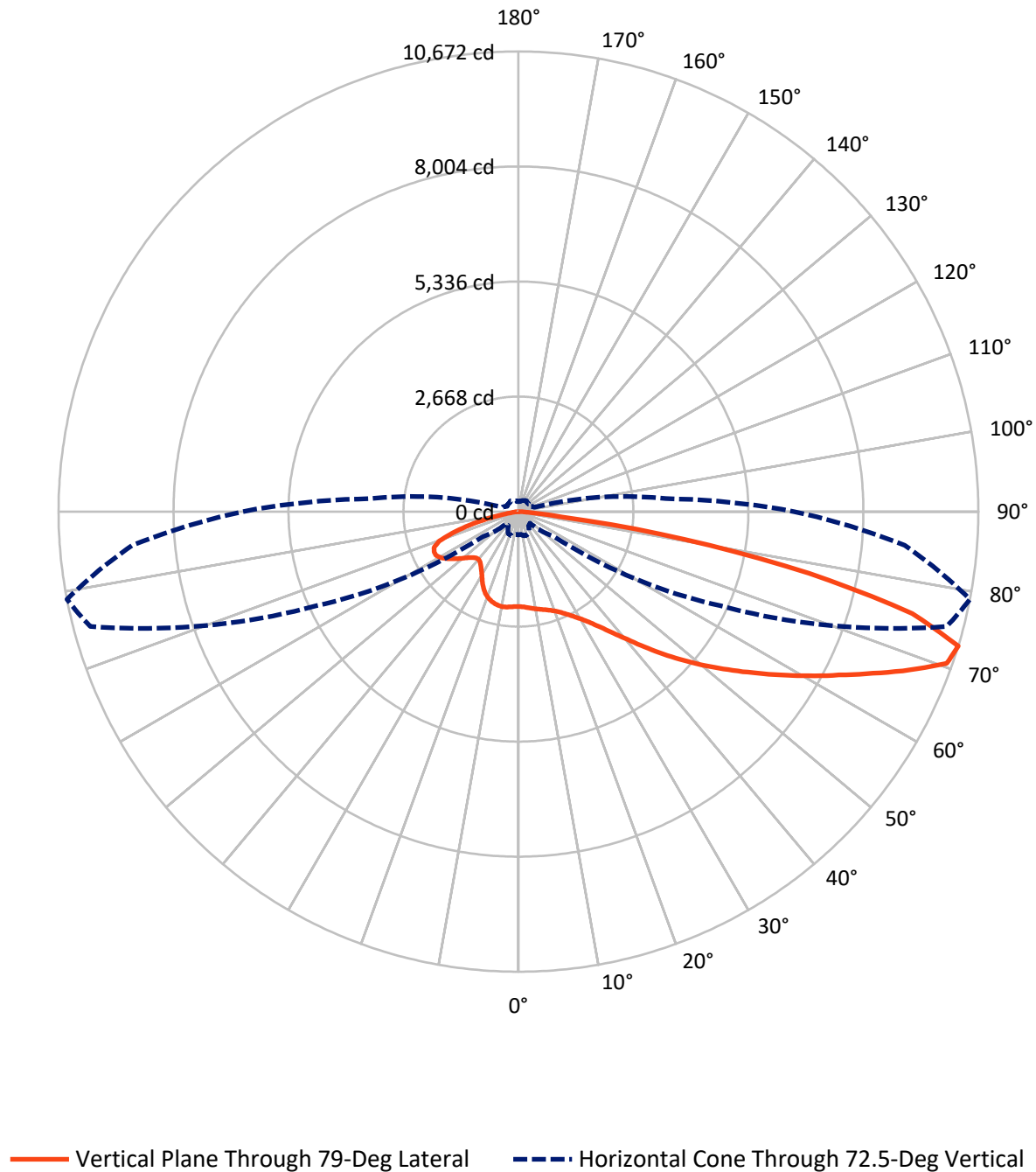
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.5 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2414.4	0.0	2414.4
	% Fixture	22.0	0.0	22.0
Street Side	Lumens	8557.2	0.0	8557.2
	% Fixture	78.0	0.0	78.0
Total	Lumens	10971.6	0.0	10971.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	199.9	1.8
10°-20°	522.7	4.8
20°-30°	843.4	7.7
30°-40°	1265.8	11.5
40°-50°	1795.7	16.4
50°-60°	2267.7	20.7
60°-70°	2303.1	21.0
70°-80°	1569.7	14.3
80°-90°	203.7	1.9
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°	10971.6	100.0
0°-180°	10971.6	100.0

Coefficient of Utilization



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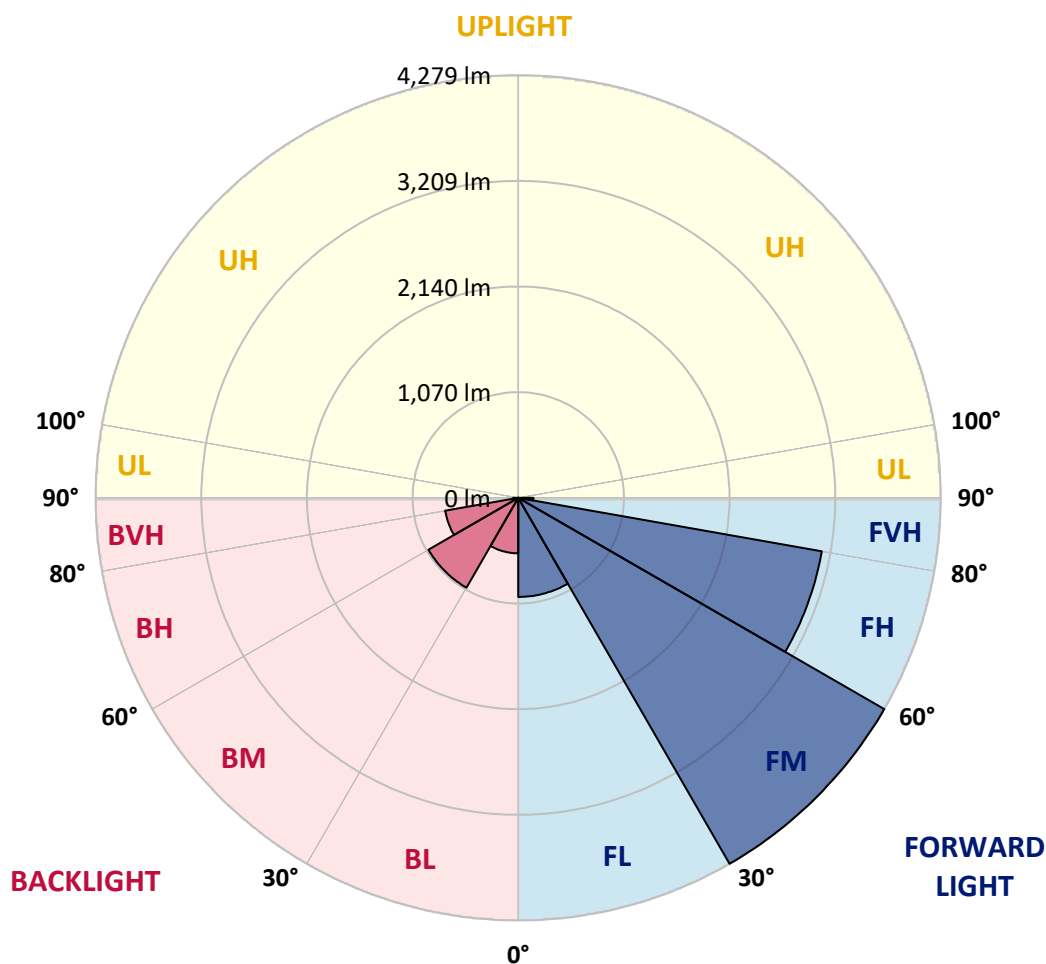
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1003.6	9.1			
FM	(30°-60°)	4279.2	39.0			
FH	(60°-80°)	3121.0	28.4			G2/5000
FVH	(80°-90°)	153.4	1.4			G2/225
BL	(0°-30°)	562.4	5.1	B2/1000		
BM	(30°-60°)	1050.0	9.6	B2/2500		
BH	(60°-80°)	751.8	6.9	B2/1000		G2/1000
BVH	(80°-90°)	50.2	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
0°	2202.4	2202.4	2202.4	2202.4	2202.4	2202.4	2202.4	2202.4	2202.4	2202.4	2202.4
2.5°	2203.6	2193.2	2199.5	2197.2	2200.2	2203.6	2204.8	2206.5	2212.4	2211.7	2211.1
5°	2198.9	2188.5	2197.2	2194.3	2201.9	2210.0	2217.0	2223.3	2232.7	2236.7	2230.9
7.5°	2189.1	2182.1	2190.8	2199.5	2213.5	2225.7	2235.5	2250.1	2263.4	2265.7	2269.8
10°	2131.6	2126.5	2146.8	2169.4	2207.6	2240.8	2262.2	2279.1	2293.5	2295.9	2301.6
12.5°	2071.8	2065.5	2088.1	2118.9	2181.0	2240.8	2286.1	2308.1	2320.8	2328.4	2337.1
15°	2062.0	2056.8	2069.6	2096.2	2147.9	2225.1	2302.3	2342.8	2353.9	2362.6	2366.1
17.5°	2109.6	2099.7	2104.9	2114.3	2144.4	2210.6	2315.1	2382.3	2399.2	2408.4	2408.4
20°	2219.8	2205.9	2197.8	2179.3	2174.0	2212.9	2313.8	2430.0	2452.0	2463.6	2466.5
22.5°	2366.7	2357.4	2340.0	2293.0	2241.9	2241.4	2336.0	2490.9	2532.1	2543.1	2536.2
25°	2544.3	2530.3	2508.3	2444.4	2346.3	2297.6	2373.1	2568.6	2637.7	2640.6	2620.3
27.5°	2748.5	2727.6	2697.5	2613.3	2481.0	2385.8	2430.0	2658.0	2759.0	2757.9	2716.0
30°	2963.9	2943.0	2911.1	2808.9	2642.3	2504.8	2508.9	2754.4	2902.9	2896.5	2825.2
32.5°	3121.1	3105.4	3099.1	3020.2	2828.1	2645.2	2599.4	2861.2	3080.5	3074.7	2974.9
35°	3241.9	3221.6	3229.1	3189.1	3030.6	2802.6	2710.3	2988.3	3296.4	3295.8	3171.7
37.5°	3361.4	3343.4	3349.8	3323.2	3218.1	3002.1	2845.5	3143.8	3563.9	3576.7	3409.6
40°	3470.5	3451.4	3476.9	3452.0	3363.7	3214.6	2999.3	3319.7	3873.9	3898.3	3697.5
42.5°	3536.1	3521.0	3563.4	3563.9	3490.2	3393.9	3168.2	3513.5	4232.5	4287.1	4051.4
45°	3558.7	3553.5	3617.3	3630.7	3602.3	3497.8	3320.2	3724.7	4619.1	4716.5	4454.8
47.5°	3534.4	3524.5	3612.7	3662.0	3684.7	3546.5	3446.2	3953.3	5013.7	5156.5	4894.7
50°	3411.3	3392.1	3523.3	3627.2	3707.8	3578.5	3573.3	4217.5	5462.3	5618.4	5337.0
52.5°	3190.2	3175.7	3324.9	3505.3	3656.8	3594.2	3716.0	4505.9	5888.3	6090.2	5790.2
55°	2907.6	2888.4	3052.7	3288.3	3529.7	3588.9	3858.8	4828.6	6390.9	6595.8	6258.5
57.5°	2459.6	2421.3	2629.0	2907.6	3322.5	3582.5	4007.3	5149.5	6901.5	7147.0	6758.2
60°	1806.0	1749.2	2004.0	2334.2	2917.5	3520.5	4191.3	5509.3	7514.4	7735.6	7303.7
62.5°	1051.6	1018.5	1185.1	1493.2	2198.9	3154.8	4294.6	5927.8	8116.9	8348.9	7840.0
65°	816.5	807.3	821.7	845.6	1224.0	2362.0	3976.0	6335.7	8882.9	9045.4	8398.8
67.5°	746.9	739.9	746.3	701.6	620.9	1315.7	3145.5	6439.0	9703.6	9802.2	8888.1
70°	663.9	655.8	676.7	638.4	488.6	598.4	2032.4	6064.1	10356.4	10541.5	9260.2
72.5°	540.9	531.6	580.4	562.9	411.4	384.2	1020.8	5173.3	10287.9	10672.1	8993.8
75°	415.5	410.3	468.3	482.9	335.5	302.4	489.8	3845.4	9053.5	9440.7	7751.3
77.5°	322.7	318.6	348.2	401.0	270.4	234.4	301.2	2439.2	6822.6	6890.6	5341.6
80°	242.0	230.4	257.7	310.5	210.6	171.2	204.3	1422.5	4312.6	3909.2	2324.9
82.5°	151.5	145.7	168.3	207.2	148.5	117.8	132.9	785.8	1728.3	1017.9	448.6
85°	86.5	84.2	91.7	118.4	80.7	67.9	76.1	347.1	315.7	217.1	135.2
87.5°	34.8	33.6	41.8	52.8	29.6	24.9	26.6	83.5	69.6	64.4	44.7
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°	2202.4	2202.4	2202.4	2202.4	2202.4	2202.4	2202.4	2202.4	2202.4	2202.4	2202.4
2.5°	2208.9	2208.9	2200.7	2188.0	2173.4	2164.2	2149.0	2145.0	2129.3	2124.7	2132.2
5°	2235.5	2230.9	2205.9	2169.9	2120.6	2075.3	2025.4	1994.1	1950.0	1934.3	1946.0
7.5°	2269.1	2256.4	2213.5	2134.6	2031.2	1929.7	1824.1	1743.9	1667.4	1640.1	1643.6
10°	2299.9	2282.0	2208.9	2070.7	1891.9	1716.2	1547.9	1430.0	1340.6	1304.0	1312.2
12.5°	2330.7	2297.6	2178.0	1964.5	1694.0	1455.5	1276.2	1184.5	1129.3	1085.3	1099.7
15°	2359.8	2313.3	2130.5	1822.3	1477.0	1235.0	1102.7	1029.5	985.4	956.4	961.7
17.5°	2393.4	2326.6	2059.1	1641.8	1270.4	1082.4	974.4	930.3	921.6	918.1	920.4
20°	2440.4	2338.8	1965.1	1439.8	1118.4	960.5	904.8	900.7	900.2	898.4	904.2
22.5°	2490.9	2353.3	1840.9	1256.4	988.9	884.5	874.6	866.4	861.2	860.7	867.0
25°	2550.6	2358.0	1685.3	1106.2	878.6	848.5	836.9	824.7	821.2	821.2	824.7
27.5°	2608.7	2342.3	1504.3	975.6	816.5	815.4	800.3	796.2	795.7	797.4	802.1
30°	2666.7	2312.7	1324.4	854.8	780.5	780.5	775.3	778.3	780.5	786.4	790.5
32.5°	2745.1	2281.3	1174.0	765.5	749.3	743.4	748.7	754.5	756.8	764.3	770.7
35°	2860.0	2259.3	1054.5	716.8	716.8	709.2	712.1	710.9	705.7	702.2	710.3
37.5°	3012.1	2258.2	955.8	694.1	689.4	688.3	688.9	681.3	661.0	636.6	637.2
40°	3194.8	2289.5	879.9	678.4	675.0	681.9	678.4	658.2	602.4	560.1	558.8
42.5°	3440.3	2378.9	831.1	659.3	669.7	678.4	664.5	594.3	556.6	528.1	527.0
45°	3729.4	2524.0	806.2	639.0	659.9	670.3	603.0	572.3	542.0	507.8	505.5
47.5°	4056.6	2706.8	800.3	619.8	637.9	644.2	576.9	562.9	528.7	491.6	488.6
50°	4413.0	2923.2	816.0	597.2	605.9	583.8	568.2	555.4	520.0	483.4	479.4
52.5°	4781.5	3161.8	847.4	566.4	574.0	549.6	564.7	553.7	514.8	465.5	462.0
55°	5143.7	3402.1	877.5	530.4	541.5	518.9	554.8	546.7	491.0	435.2	432.3
57.5°	5511.6	3641.1	907.1	498.6	510.1	489.2	539.2	528.1	464.3	407.4	406.2
60°	5894.1	3873.3	921.1	467.8	475.9	462.0	515.4	496.2	434.1	378.9	377.2
62.5°	6252.2	4066.6	898.4	437.0	442.2	436.4	484.0	458.5	404.0	347.1	346.4
65°	6611.4	4181.5	828.7	406.8	408.0	405.1	439.9	417.9	368.5	319.2	315.7
67.5°	6937.0	4245.9	717.9	374.3	371.5	370.2	398.7	373.7	334.3	291.3	287.8
70°	7006.1	4082.2	548.5	336.0	336.0	333.1	353.4	327.9	296.5	261.8	260.6
72.5°	6399.0	3434.0	389.4	292.5	297.1	291.3	308.2	286.7	258.3	235.0	228.1
75°	5160.0	2518.1	283.2	247.8	255.9	246.1	261.8	246.6	222.3	221.7	199.7
77.5°	3545.4	1557.1	205.4	204.3	210.1	197.3	215.4	207.2	185.1	175.3	164.2
80°	1513.0	620.9	149.8	157.8	157.8	146.3	167.2	169.4	150.3	145.7	145.7
82.5°	301.2	176.4	105.1	108.5	102.2	98.7	118.4	131.2	181.1	201.4	201.9
85°	90.5	65.0	63.2	59.2	52.3	52.8	69.6	131.7	162.5	92.9	80.1
87.5°	24.9	16.3	16.8	13.3	11.1	14.6	23.8	99.8	54.5	23.2	19.8
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)