

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: P882749

Luminaire Tested: **NAV-SB2D-735-U-T3**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882749
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-5)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2D-735-U-T3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20754 lumens
Efficiency: N/A
Efficacy: 140.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G3

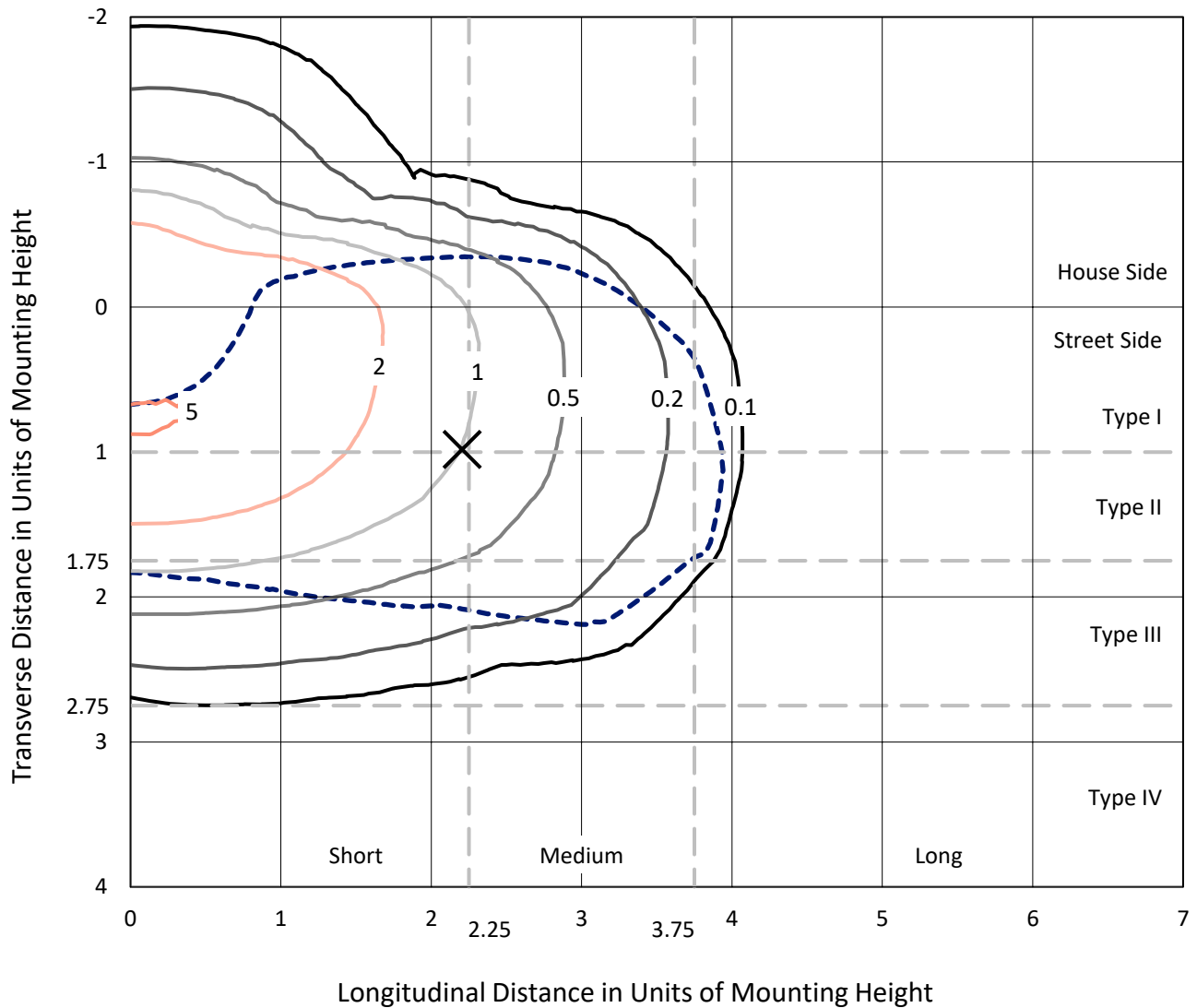
Input Watts (W): 147.6
Input Voltage (V): 120.0
Input Current (Ain): 1.234
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 3.108
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

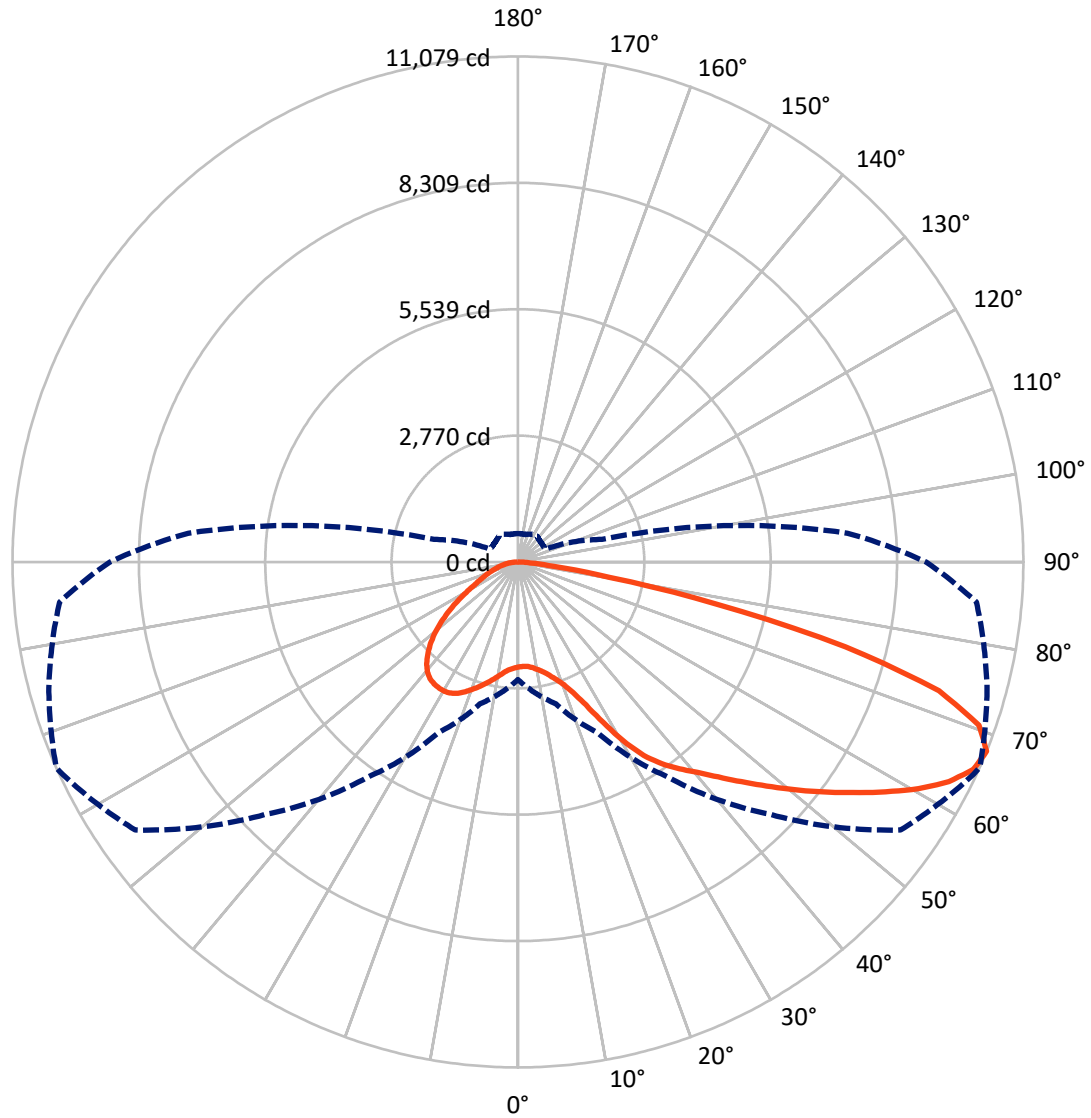
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.2 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5160.4	0.0	5160.4
	% Fixture	24.9	0.0	24.9
Street Side	Lumens	15593.6	0.0	15593.6
	% Fixture	75.1	0.0	75.1
Total	Lumens	20754.0	0.0	20754.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	228.2	1.1
10°-20°	754.0	3.6
20°-30°	1453.3	7.0
30°-40°	2548.2	12.3
40°-50°	3788.4	18.3
50°-60°	4802.1	23.1
60°-70°	4698.8	22.6
70°-80°	2241.4	10.8
80°-90°	239.5	1.2
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°	20754.0	100.0
0°-180°	20754.0	100.0

Coefficient of Utilization



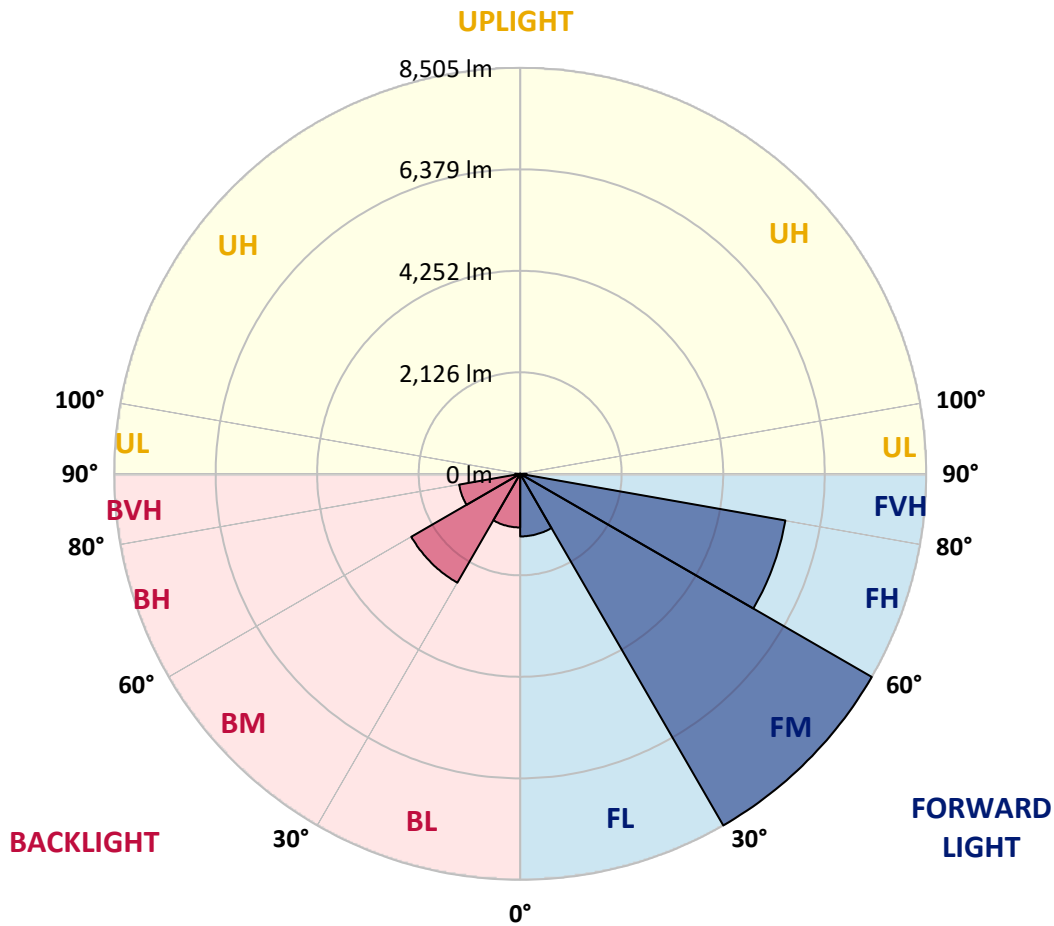
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1311.4	6.3			
FM (30°-60°)	8504.8	41.0			
FH (60°-80°)	5641.5	27.2			G3/7500
FVH (80°-90°)	135.8	0.7			G2/225
BL (0°-30°)	1124.1	5.4	B3/2500		
BM (30°-60°)	2633.9	12.7	B3/5000		
BH (60°-80°)	1298.6	6.3	B3/2500		G3/2500
BVH (80°-90°)	103.7	0.5			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type III Short



REPORT NUMBER: P882749
 CATALOG NUMBER: NAV-SB2D-735-U-T3

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	2301.9	2301.9	2301.9	2301.9	2301.9	2301.9	2301.9	2301.9	2301.9	2301.9	2301.9
2.5°	2277.9	2291.0	2287.7	2282.3	2281.2	2283.4	2286.6	2289.9	2288.8	2294.3	2303.0
5°	2271.4	2284.4	2283.4	2283.4	2287.7	2296.4	2301.9	2307.3	2301.9	2308.4	2320.4
7.5°	2275.7	2285.5	2289.9	2294.3	2305.2	2321.5	2334.6	2346.6	2340.1	2347.7	2363.0
10°	2331.3	2339.0	2343.3	2343.3	2351.0	2369.5	2382.6	2404.4	2398.9	2410.9	2430.6
12.5°	2432.7	2440.4	2440.4	2436.0	2441.5	2453.5	2457.8	2481.8	2472.0	2491.6	2511.3
15°	2557.1	2572.3	2560.3	2552.7	2554.9	2566.9	2565.8	2584.3	2574.5	2590.9	2608.3
17.5°	2694.4	2714.1	2694.4	2693.4	2689.0	2702.1	2703.2	2719.5	2702.1	2714.1	2726.1
20°	2856.9	2884.2	2867.8	2873.3	2863.5	2868.9	2874.4	2898.4	2871.1	2879.8	2876.5
22.5°	3085.9	3118.6	3101.2	3121.9	3115.4	3111.0	3109.9	3152.4	3109.9	3113.2	3081.5
25°	3419.6	3458.8	3428.3	3456.7	3456.7	3470.8	3487.2	3541.7	3470.8	3450.1	3368.3
27.5°	3912.5	3951.7	3891.7	3909.2	3903.7	3938.6	3921.2	4056.4	3980.1	3946.3	3781.6
30°	4505.6	4575.4	4462.0	4457.7	4452.2	4507.8	4532.9	4622.3	4544.9	4511.1	4312.6
32.5°	5146.8	5219.9	5084.7	5045.4	5024.7	5058.5	5037.8	5109.7	5056.3	5004.0	4758.6
35°	5825.1	5897.0	5768.4	5692.0	5609.2	5538.3	5464.1	5482.7	5432.5	5352.9	5098.8
37.5°	6466.2	6598.2	6461.9	6380.1	6227.4	6088.9	5881.8	5795.6	5748.7	5675.7	5419.4
40°	7119.4	7194.6	7091.1	7021.3	6855.5	6638.5	6307.0	6124.9	6061.7	5990.8	5773.8
42.5°	7600.3	7672.2	7616.6	7568.7	7438.9	7187.0	6758.5	6530.6	6439.0	6359.4	6175.1
45°	7981.9	8035.4	8000.5	8017.9	7962.3	7718.0	7226.3	6965.7	6870.8	6773.7	6628.7
47.5°	8135.7	8192.4	8248.0	8351.6	8446.5	8266.5	7729.0	7436.7	7336.4	7237.2	7094.3
50°	8118.2	8176.0	8337.4	8557.7	8852.1	8792.1	8258.9	7938.3	7845.6	7732.2	7600.3
52.5°	7978.7	8044.1	8251.3	8617.7	9086.5	9185.8	8798.7	8456.3	8369.0	8233.8	8101.9
55°	7612.3	7651.5	7962.3	8481.3	9142.1	9460.6	9327.5	9008.0	8920.8	8732.1	8588.2
57.5°	6932.9	6989.6	7442.2	8113.9	9002.6	9647.0	9792.0	9588.1	9504.2	9232.7	9082.2
60°	6046.4	6136.9	6654.9	7496.7	8647.1	9645.9	10214.0	10158.4	10088.6	9725.5	9568.5
62.5°	5043.2	5147.9	5646.2	6624.3	8025.5	9372.2	10477.9	10636.0	10600.0	10180.2	9979.6
65°	3873.2	3945.2	4441.3	5495.8	7058.3	8784.5	10508.5	10962.1	10968.6	10525.9	10194.4
67.5°	2578.9	2786.0	3216.8	4124.0	5762.9	7823.8	10240.2	11015.5	11078.7	10644.8	10086.5
70°	1258.4	1531.0	1953.0	2680.3	4124.0	6350.7	9539.1	10577.1	10717.8	10298.0	9443.1
72.5°	522.3	610.6	840.7	1322.7	2367.3	4285.4	8130.2	9388.6	9649.2	9124.7	7939.4
75°	352.2	381.6	480.9	678.2	1078.4	2113.2	5863.2	7000.5	7420.4	6891.5	5633.1
77.5°	271.5	290.1	350.0	474.3	641.2	799.3	3138.3	4218.9	4435.9	4106.6	2931.1
80°	213.7	227.9	261.7	345.7	454.7	427.4	1069.7	1911.5	2036.9	1708.7	942.1
82.5°	185.4	190.8	187.6	234.4	302.0	249.7	351.1	705.5	778.6	564.8	307.5
85°	134.1	149.4	155.9	145.0	160.3	126.5	143.9	249.7	274.8	245.3	173.4
87.5°	54.5	80.7	99.2	93.8	58.9	36.0	44.7	73.1	84.0	91.6	56.7
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: P882749

CATALOG NUMBER: NAV-SB2D-735-U-T3

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2301.9	2301.9	2301.9	2301.9	2301.9	2301.9	2301.9	2301.9	2301.9	2301.9	2301.9
2.5°	2304.1	2311.7	2317.2	2323.7	2328.1	2334.6	2347.7	2355.3	2356.4	2361.9	2360.8
5°	2324.8	2335.7	2347.7	2365.1	2384.8	2401.1	2426.2	2443.6	2450.2	2455.6	2454.6
7.5°	2369.5	2384.8	2406.6	2437.1	2465.5	2487.3	2517.8	2538.5	2559.2	2566.9	2568.0
10°	2436.0	2457.8	2489.4	2530.9	2561.4	2589.8	2621.4	2638.8	2659.6	2668.3	2672.6
12.5°	2518.9	2541.8	2583.2	2641.0	2669.4	2689.0	2699.9	2695.5	2699.9	2707.5	2709.7
15°	2613.8	2638.8	2685.7	2747.9	2767.5	2750.1	2726.1	2704.3	2701.0	2703.2	2710.8
17.5°	2726.1	2744.6	2799.1	2851.5	2837.3	2765.3	2713.0	2678.1	2660.6	2655.2	2662.8
20°	2883.1	2883.1	2927.8	2960.5	2865.6	2743.5	2661.7	2605.0	2569.0	2553.8	2550.5
22.5°	3073.9	3056.5	3084.8	3061.9	2860.2	2682.5	2569.0	2470.9	2416.4	2394.6	2391.3
25°	3316.0	3295.3	3287.6	3145.9	2820.9	2585.4	2401.1	2282.3	2234.3	2222.3	2224.5
27.5°	3681.3	3628.9	3529.7	3191.7	2749.0	2432.7	2204.8	2094.7	2067.5	2068.5	2071.8
30°	4167.6	4062.9	3819.8	3199.3	2631.2	2216.8	2004.2	1925.7	1912.6	1918.1	1936.6
32.5°	4618.0	4518.7	4116.4	3164.4	2450.2	2005.3	1824.3	1771.9	1752.3	1758.9	1767.6
35°	4971.3	4944.0	4391.2	3115.4	2227.7	1806.8	1662.9	1618.2	1580.0	1571.3	1577.8
37.5°	5304.9	5294.0	4597.2	3046.7	2007.5	1666.2	1533.1	1474.3	1418.6	1388.1	1389.2
40°	5671.3	5660.4	4732.5	2940.9	1812.3	1544.0	1416.5	1339.0	1270.3	1214.7	1220.2
42.5°	6083.5	6019.2	4796.8	2789.3	1646.5	1440.5	1321.6	1216.9	1126.4	1075.2	1078.4
45°	6533.8	6388.8	4795.7	2596.3	1507.0	1345.6	1220.2	1071.9	987.9	939.9	937.8
47.5°	7011.5	6742.1	4736.8	2382.6	1371.8	1240.9	1063.2	949.8	894.2	864.7	858.2
50°	7504.3	7072.5	4636.5	2137.2	1233.3	1122.1	965.0	887.6	845.1	817.8	808.0
52.5°	7967.8	7372.4	4515.5	1859.2	1092.6	1006.5	921.4	861.4	816.7	786.2	773.1
55°	8398.5	7630.8	4344.3	1574.6	978.1	929.0	900.7	850.5	799.3	763.3	749.1
57.5°	8781.2	7798.7	4048.8	1307.4	896.3	875.6	878.9	832.0	773.1	742.6	723.0
60°	9099.6	7922.0	3611.5	1059.9	829.8	823.3	845.1	797.1	728.4	693.5	678.2
62.5°	9290.4	7919.8	3075.0	868.0	773.1	775.3	800.4	753.5	683.7	651.0	641.2
65°	9274.1	7725.7	2486.2	742.6	718.6	720.8	753.5	705.5	646.6	627.0	625.9
67.5°	8945.9	7252.4	1907.2	660.8	658.6	668.4	706.6	672.8	623.7	621.5	624.8
70°	8057.2	6270.0	1373.9	595.4	596.5	610.6	660.8	652.1	611.7	616.1	615.0
72.5°	6460.8	4780.4	922.5	526.7	527.8	550.7	617.2	635.7	599.7	657.5	666.3
75°	4302.8	2981.2	593.2	453.6	454.7	484.1	579.0	604.1	567.0	655.3	660.8
77.5°	2067.5	1340.1	429.6	381.6	381.6	408.9	500.5	540.9	483.1	509.2	466.7
80°	714.2	503.8	338.0	307.5	301.0	319.5	422.0	468.9	416.5	383.8	359.8
82.5°	281.3	261.7	271.5	238.8	217.0	229.0	328.2	387.1	306.4	277.0	275.9
85°	161.4	170.1	191.9	158.1	125.4	140.7	241.0	278.1	231.2	203.9	208.3
87.5°	43.6	60.0	88.3	81.8	56.7	60.0	114.5	153.8	133.0	102.5	105.8
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)