

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: P882729

Luminaire Tested: **NAV-SB2D-727-U-T3**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P882729  
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-727-U-T3  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(2) 70 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

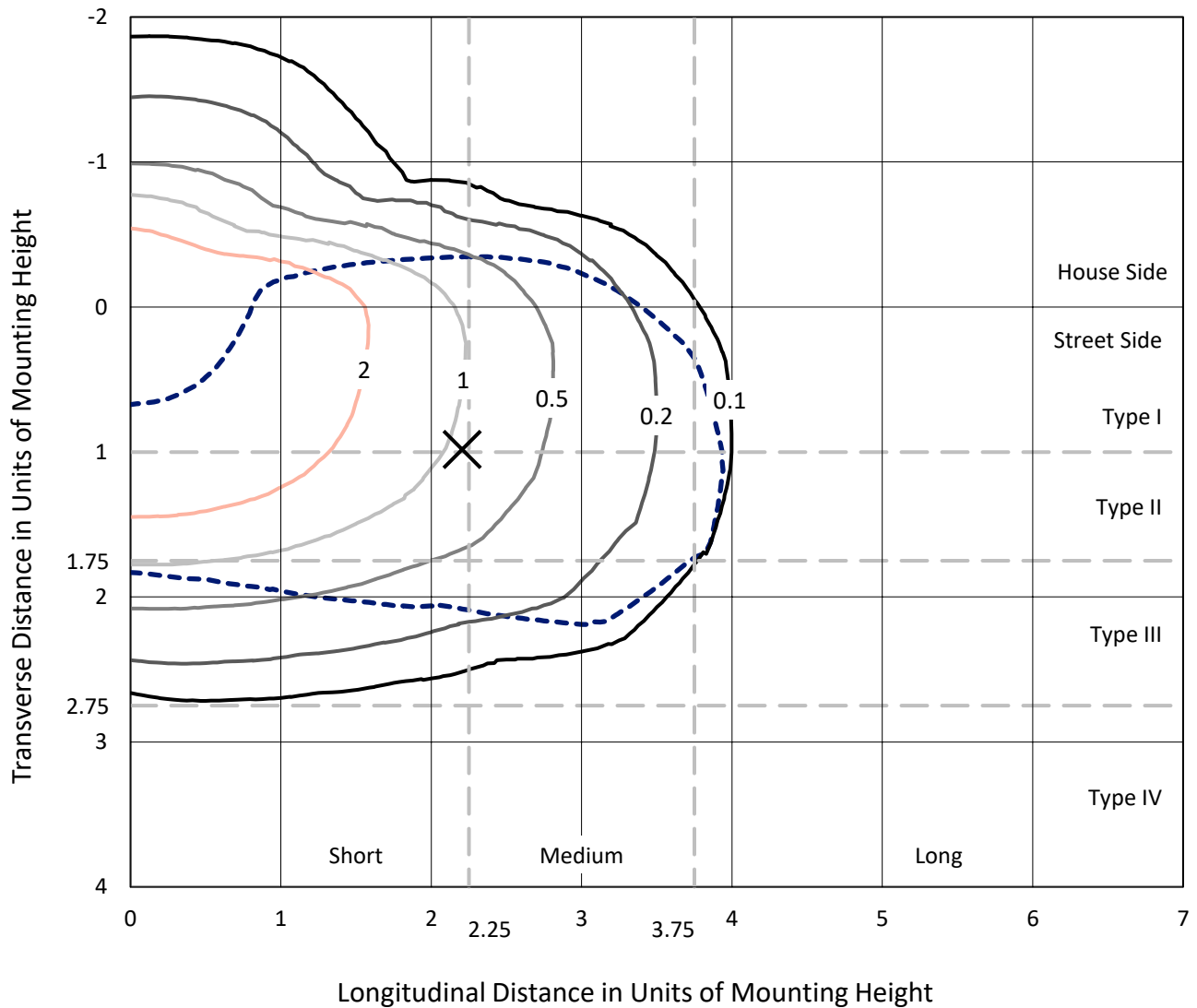
Lumens per Lamp: N/A  
Luminaire Lumens: 18808 lumens  
Efficiency: N/A  
Efficacy: 127.4 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B3 - U0 - G3  
  
Input Watts (W): 147.6  
Input Voltage (V): 120.0  
Input Current (Ain): 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

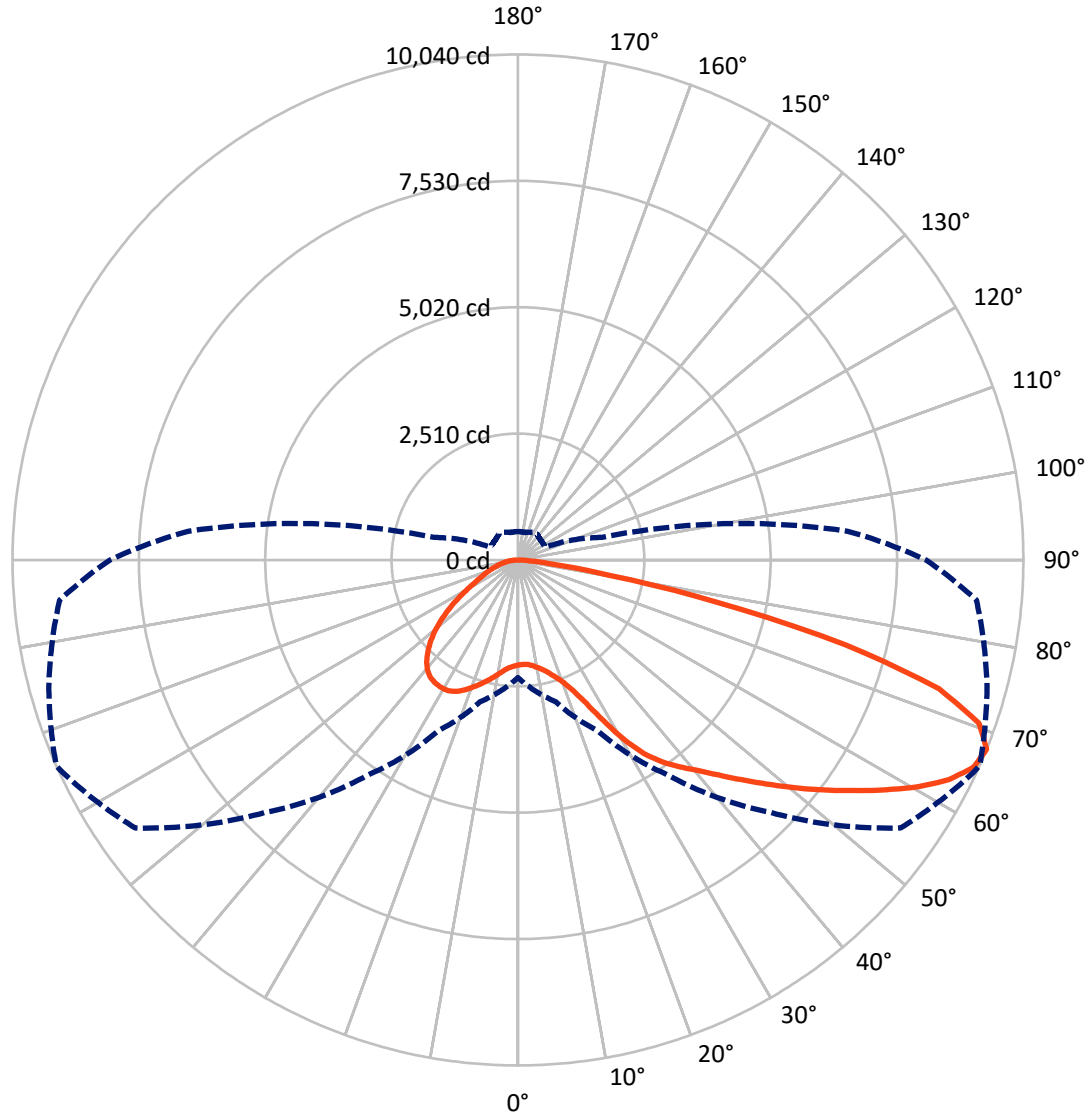
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.7 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
<b>House Side</b>	Lumens	4676.6	0.0	4676.6
	% Fixture	24.9	0.0	24.9
<b>Street Side</b>	Lumens	14131.4	0.0	14131.4
	% Fixture	75.1	0.0	75.1
<b>Total</b>	Lumens	18808.0	0.0	18808.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	206.8	1.1
10°-20°	683.3	3.6
20°-30°	1317.1	7.0
30°-40°	2309.3	12.3
40°-50°	3433.2	18.3
50°-60°	4351.9	23.1
60°-70°	4258.2	22.6
70°-80°	2031.2	10.8
80°-90°	217.1	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°	18808.0	100.0
0°-180°	18808.0	100.0

**Coefficient of Utilization**



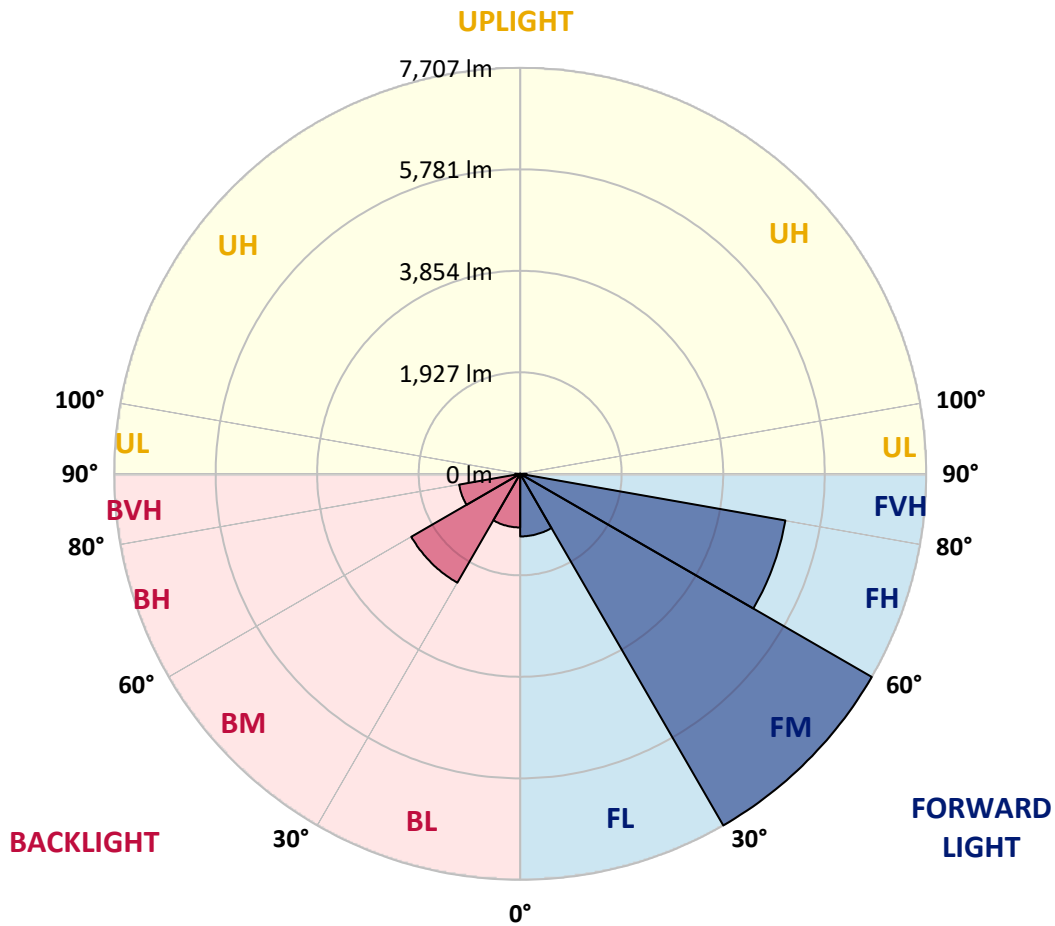
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1188.5	6.3			
FM (30°-60°)	7707.4	41.0			
FH (60°-80°)	5112.5	27.2			G3/7500
FVH (80°-90°)	123.1	0.7			G2/225
BL (0°-30°)	1018.7	5.4	B3/2500		
BM (30°-60°)	2387.0	12.7	B2/2500		
BH (60°-80°)	1176.9	6.3	B3/2500		G3/2500
BVH (80°-90°)	94.0	0.5			G1/100
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



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	2086.1	2086.1	2086.1	2086.1	2086.1	2086.1	2086.1	2086.1	2086.1	2086.1	2086.1
2.5°	2064.3	2076.2	2073.2	2068.3	2067.3	2069.3	2072.2	2075.2	2074.2	2079.1	2087.0
5°	2058.4	2070.2	2069.3	2069.3	2073.2	2081.1	2086.1	2091.0	2086.1	2092.0	2102.9
7.5°	2062.3	2071.2	2075.2	2079.1	2089.0	2103.8	2115.7	2126.6	2120.6	2127.6	2141.4
10°	2112.7	2119.7	2123.6	2123.6	2130.5	2147.3	2159.2	2178.9	2174.0	2184.9	2202.7
12.5°	2204.6	2211.6	2211.6	2207.6	2212.5	2223.4	2227.4	2249.1	2240.2	2258.0	2275.8
15°	2317.3	2331.1	2320.3	2313.3	2315.3	2326.2	2325.2	2342.0	2333.1	2347.9	2363.7
17.5°	2441.8	2459.6	2441.8	2440.8	2436.9	2448.7	2449.7	2464.5	2448.7	2459.6	2470.5
20°	2589.0	2613.7	2598.9	2603.9	2595.0	2599.9	2604.9	2626.6	2601.9	2609.8	2606.8
22.5°	2796.6	2826.2	2810.4	2829.2	2823.2	2819.3	2818.3	2856.8	2818.3	2821.3	2792.6
25°	3098.9	3134.5	3106.8	3132.5	3132.5	3145.4	3160.2	3209.6	3145.4	3126.6	3052.5
27.5°	3545.6	3581.2	3526.8	3542.6	3537.7	3569.3	3553.5	3676.0	3606.9	3576.2	3427.0
30°	4083.2	4146.4	4043.6	4039.7	4034.8	4085.2	4107.9	4188.9	4118.7	4088.1	3908.3
32.5°	4664.2	4730.4	4607.9	4572.3	4553.6	4584.2	4565.4	4630.6	4582.2	4534.8	4312.4
35°	5278.9	5344.1	5227.5	5158.3	5083.2	5019.0	4951.8	4968.6	4923.1	4851.0	4620.7
37.5°	5859.9	5979.5	5856.0	5781.9	5643.5	5518.0	5330.3	5252.2	5209.7	5143.5	4911.3
40°	6451.9	6520.0	6426.2	6362.9	6212.7	6016.1	5715.7	5550.6	5493.3	5429.1	5232.4
42.5°	6887.6	6952.9	6902.5	6859.0	6741.4	6513.1	6124.8	5918.2	5835.2	5763.1	5596.1
45°	7233.5	7281.9	7250.3	7266.1	7215.7	6994.4	6548.7	6312.5	6226.5	6138.6	6007.2
47.5°	7372.8	7424.2	7474.6	7568.5	7654.5	7491.4	7004.2	6739.4	6648.5	6558.6	6429.1
50°	7357.0	7409.4	7555.7	7755.3	8022.1	7967.7	7484.5	7194.0	7110.0	7007.2	6887.6
52.5°	7230.5	7289.8	7477.6	7809.6	8234.5	8324.5	7973.7	7663.4	7584.3	7461.8	7342.2
55°	6898.5	6934.1	7215.7	7686.1	8284.9	8573.5	8452.9	8163.4	8084.3	7913.4	7782.9
57.5°	6282.9	6334.3	6744.4	7353.1	8158.4	8742.5	8873.9	8689.1	8613.0	8367.0	8230.6
60°	5479.5	5561.5	6030.9	6793.8	7836.3	8741.5	9256.3	9205.9	9142.7	8813.6	8671.3
62.5°	4570.3	4665.2	5116.8	6003.2	7273.0	8493.4	9495.5	9638.7	9606.1	9225.7	9043.9
65°	3510.0	3575.2	4024.9	4980.4	6396.5	7960.8	9523.1	9934.2	9940.1	9538.9	9238.5
67.5°	2337.1	2524.8	2915.1	3737.3	5222.6	7090.2	9280.0	9982.6	10039.9	9646.6	9140.7
70°	1140.4	1387.4	1769.8	2429.0	3737.3	5755.2	8644.6	9585.4	9712.9	9332.4	8557.7
72.5°	473.3	553.4	761.9	1198.7	2145.3	3883.6	7367.9	8508.3	8744.4	8269.1	7195.0
75°	319.2	345.9	435.8	614.7	977.3	1915.1	5313.5	6344.1	6724.6	6245.3	5105.0
77.5°	246.1	262.9	317.2	429.9	581.1	724.3	2844.0	3823.3	4019.9	3721.5	2656.2
80°	193.7	206.5	237.2	313.3	412.1	387.4	969.4	1732.3	1845.9	1548.5	853.8
82.5°	168.0	172.9	170.0	212.5	273.7	226.3	318.2	639.4	705.6	511.9	278.7
85°	121.5	135.4	141.3	131.4	145.3	114.6	130.4	226.3	249.0	222.3	157.1
87.5°	49.4	73.1	89.9	85.0	53.4	32.6	40.5	66.2	76.1	83.0	51.4
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°	2086.1	2086.1	2086.1	2086.1	2086.1	2086.1	2086.1	2086.1	2086.1	2086.1	2086.1
2.5°	2088.0	2094.9	2099.9	2105.8	2109.8	2115.7	2127.6	2134.5	2135.5	2140.4	2139.4
5°	2106.8	2116.7	2127.6	2143.4	2161.2	2176.0	2198.7	2214.5	2220.4	2225.4	2224.4
7.5°	2147.3	2161.2	2180.9	2208.6	2234.3	2254.0	2281.7	2300.5	2319.3	2326.2	2327.2
10°	2207.6	2227.4	2256.0	2293.6	2321.2	2346.9	2375.6	2391.4	2410.2	2418.1	2422.0
12.5°	2282.7	2303.5	2341.0	2393.4	2419.1	2436.9	2446.7	2442.8	2446.7	2453.7	2455.6
15°	2368.7	2391.4	2433.9	2490.2	2508.0	2492.2	2470.5	2450.7	2447.7	2449.7	2456.6
17.5°	2470.5	2487.3	2536.7	2584.1	2571.3	2506.0	2458.6	2427.0	2411.2	2406.2	2413.1
20°	2612.8	2612.8	2653.3	2682.9	2596.9	2486.3	2412.2	2360.8	2328.2	2314.3	2311.4
22.5°	2785.7	2769.9	2795.6	2774.8	2592.0	2430.9	2328.2	2239.2	2189.8	2170.1	2167.1
25°	3005.1	2986.3	2979.4	2850.9	2556.4	2343.0	2176.0	2068.3	2024.8	2013.9	2015.9
27.5°	3336.1	3288.7	3198.8	2892.4	2491.2	2204.6	1998.1	1898.3	1873.6	1874.6	1877.5
30°	3776.8	3682.0	3461.6	2899.3	2384.5	2009.0	1816.3	1745.1	1733.3	1738.2	1755.0
32.5°	4185.0	4095.0	3730.4	2867.7	2220.4	1817.3	1653.2	1605.8	1588.0	1593.9	1601.8
35°	4505.1	4480.4	3979.4	2823.2	2018.9	1637.4	1507.0	1466.5	1431.9	1424.0	1429.9
37.5°	4807.5	4797.6	4166.2	2761.0	1819.2	1509.9	1389.4	1336.0	1285.6	1258.0	1258.9
40°	5139.5	5129.7	4288.7	2665.1	1642.4	1399.3	1283.7	1213.5	1151.2	1100.8	1105.8
42.5°	5513.1	5454.8	4347.0	2527.8	1492.2	1305.4	1197.7	1102.8	1020.8	974.3	977.3
45°	5921.2	5789.8	4346.0	2352.9	1365.7	1219.4	1105.8	971.4	895.3	851.8	849.8
47.5°	6354.0	6109.9	4292.7	2159.2	1243.1	1124.6	963.5	860.7	810.3	783.6	777.7
50°	6800.7	6409.4	4201.8	1936.8	1117.6	1016.8	874.5	804.4	765.8	741.1	732.2
52.5°	7220.7	6681.1	4092.1	1684.9	990.2	912.1	835.0	780.7	740.1	712.5	700.6
55°	7611.0	6915.3	3936.9	1426.9	886.4	841.9	816.2	770.8	724.3	691.7	678.9
57.5°	7957.8	7067.5	3669.1	1184.8	812.3	793.5	796.5	754.0	700.6	673.0	655.2
60°	8246.4	7179.2	3272.9	960.5	752.0	746.1	765.8	722.4	660.1	628.5	614.7
62.5°	8419.3	7177.2	2786.7	786.6	700.6	702.6	725.3	682.8	619.6	589.9	581.1
65°	8404.5	7001.3	2253.1	673.0	651.2	653.2	682.8	639.4	586.0	568.2	567.2
67.5°	8107.1	6572.4	1728.3	598.8	596.9	605.8	640.3	609.7	565.2	563.3	566.2
70°	7301.7	5682.1	1245.1	539.5	540.5	553.4	598.8	590.9	554.4	558.3	557.3
72.5°	5855.0	4332.2	836.0	477.3	478.3	499.0	559.3	576.1	543.5	595.9	603.8
75°	3899.4	2701.7	537.6	411.1	412.1	438.8	524.7	547.5	513.9	593.9	598.8
77.5°	1873.6	1214.5	389.3	345.9	345.9	370.6	453.6	490.1	437.8	461.5	422.9
80°	647.3	456.5	306.3	278.7	272.7	289.5	382.4	424.9	377.5	347.8	326.1
82.5°	255.0	237.2	246.1	216.4	196.6	207.5	297.4	350.8	277.7	251.0	250.0
85°	146.3	154.2	173.9	143.3	113.6	127.5	218.4	252.0	209.5	184.8	188.7
87.5°	39.5	54.4	80.0	74.1	51.4	54.4	103.8	139.3	120.6	92.9	95.9
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)