

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: P884508

Luminaire Tested: **NAV-SB5B-835-U-T3-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P884508  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB5B-835-U-T3-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 80 CRI, 3500K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

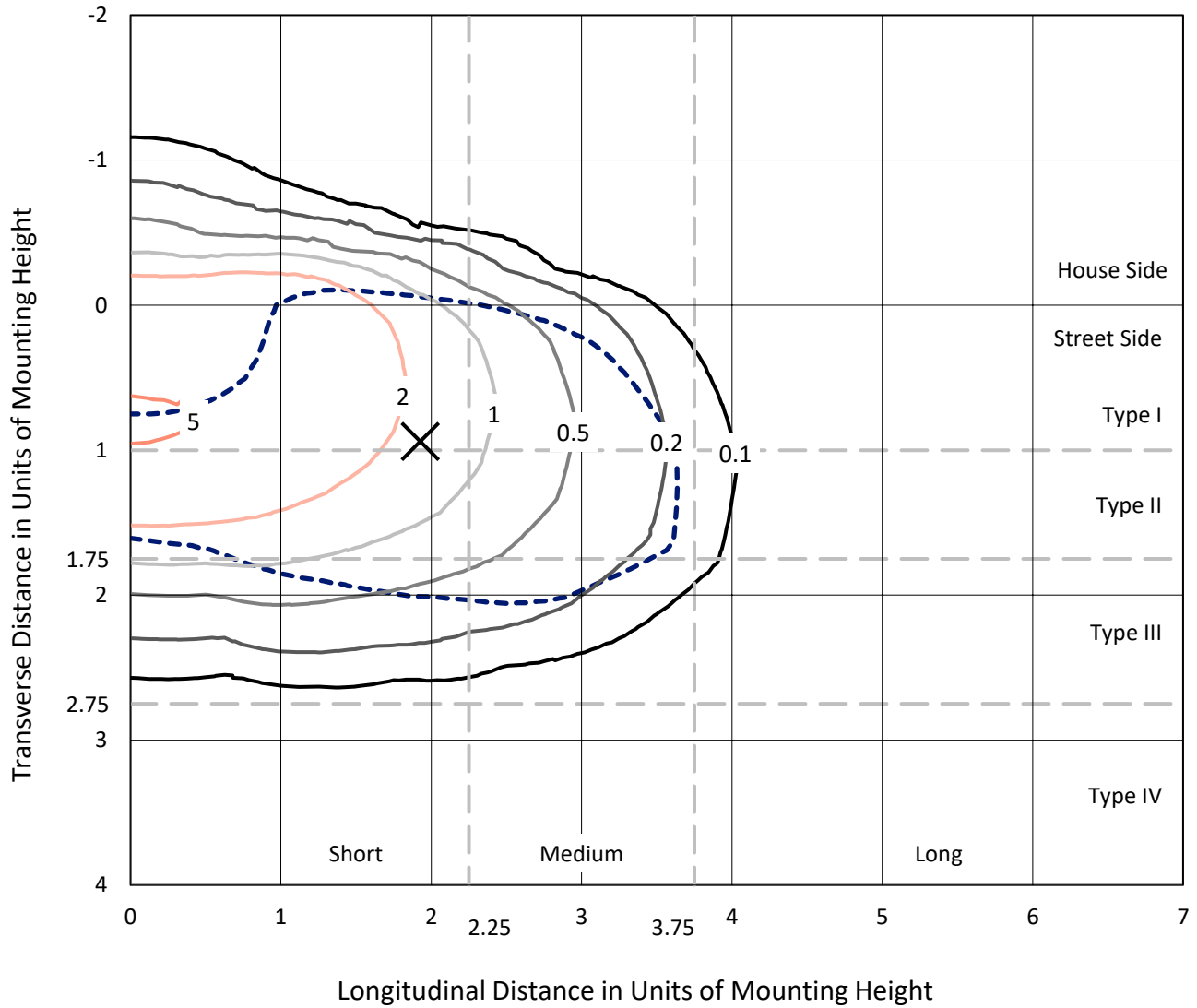
Lumens per Lamp: N/A  
Luminaire Lumens: 18908 lumens  
Efficiency: N/A  
Efficacy: 103.5 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B2 - U0 - G3  
  
Input Watts (W): 182.7  
Input Voltage (V): 120.0  
Input Current (Ain): 1.547  
Voltage Rise (V): NR  
Power Factor: 0.992  
Total Harmonic Distortion (THDi): 11.125  
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

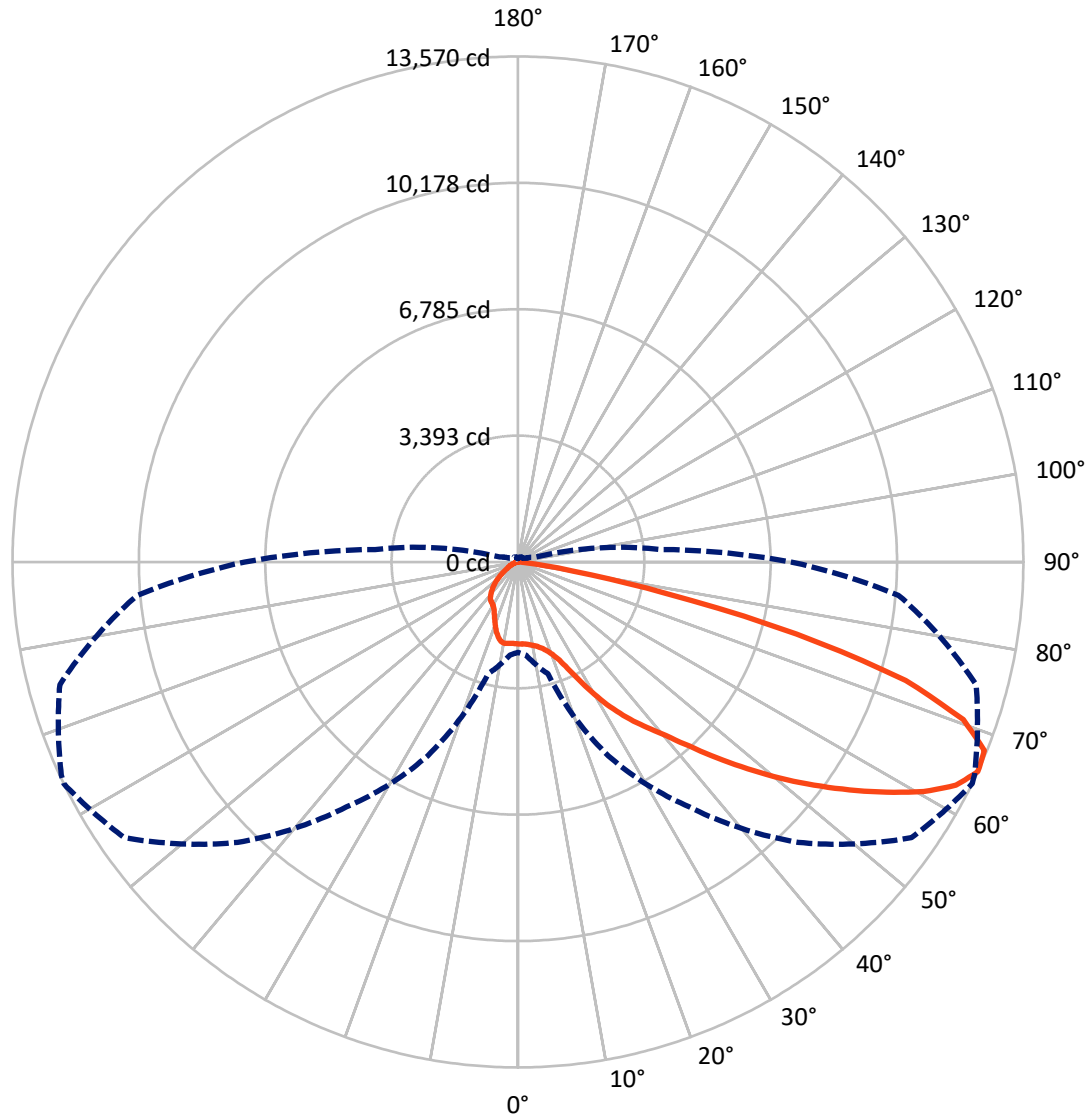
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.5 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 64-Deg Lateral    - - - Horizontal Cone Through 65-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2528.6	0.0	2528.6
	% Fixture	13.4	0.0	13.4
<b>Street Side</b>	Lumens	16379.4	0.0	16379.4
	% Fixture	86.6	0.0	86.6
<b>Total</b>	Lumens	18908.0	0.0	18908.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	202.9	1.1
10°-20°	550.3	2.9
20°-30°	1042.8	5.5
30°-40°	2110.1	11.2
40°-50°	3594.6	19.0
50°-60°	4888.4	25.9
60°-70°	4590.5	24.3
70°-80°	1839.2	9.7
80°-90°	89.1	0.5
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°	18908.0	100.0
0°-180°	18908.0	100.0

**Coefficient of Utilization**



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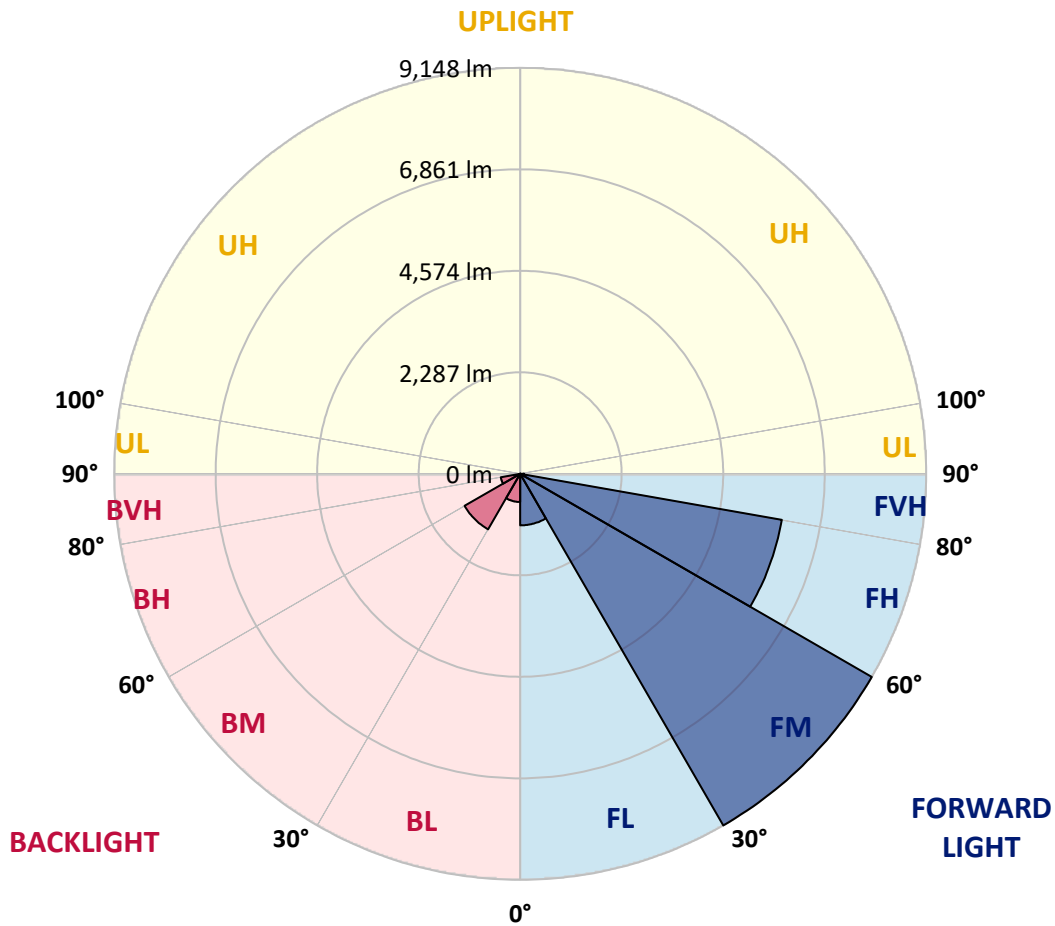
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1161.2	6.1			
FM (30°-60°)	9147.7	48.4			
FH (60°-80°)	5985.8	31.7			G3/7500
FVH (80°-90°)	84.7	0.4			G1/100
BL (0°-30°)	634.8	3.4	B2/1000		
BM (30°-60°)	1445.6	7.6	B2/2500		
BH (60°-80°)	443.8	2.3	B1/500		G1/500
BVH (80°-90°)	4.3	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 III Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	2199.2	2199.2	2199.2	2199.2	2199.2	2199.2	2199.2	2199.2	2199.2	2199.2	2199.2
2.5°	2191.6	2206.8	2203.0	2199.2	2197.9	2200.5	2201.7	2200.5	2200.5	2200.5	2201.7
5°	2149.8	2162.4	2162.4	2171.3	2184.0	2199.2	2210.6	2213.1	2215.7	2219.5	2218.2
7.5°	2069.9	2080.0	2087.7	2116.8	2148.5	2189.1	2223.3	2241.0	2243.6	2257.5	2262.6
10°	2015.4	2028.1	2040.8	2071.2	2116.8	2177.6	2236.0	2279.1	2285.4	2318.3	2333.6
12.5°	2012.9	2025.5	2042.0	2075.0	2128.2	2192.9	2263.8	2326.0	2337.4	2385.5	2417.2
15°	2039.5	2054.7	2069.9	2110.5	2167.5	2246.1	2322.1	2399.5	2410.9	2479.3	2513.5
17.5°	2094.0	2114.3	2125.7	2166.2	2227.1	2314.5	2414.7	2503.4	2513.5	2593.4	2636.5
20°	2201.7	2225.8	2229.6	2262.6	2322.1	2415.9	2535.1	2645.4	2658.0	2749.3	2797.5
22.5°	2424.8	2459.0	2428.6	2445.1	2498.3	2592.1	2721.4	2860.9	2878.6	2982.5	3025.6
25°	2817.8	2865.9	2787.3	2759.5	2782.3	2879.9	3042.1	3218.3	3238.6	3322.2	3343.8
27.5°	3589.7	3527.6	3408.4	3291.8	3223.4	3279.1	3461.7	3679.7	3705.0	3786.2	3760.8
30°	4437.7	4383.2	4222.2	3963.6	3801.4	3792.5	3961.1	4204.5	4233.6	4310.9	4233.6
32.5°	5286.9	5235.0	5060.1	4741.9	4460.5	4321.1	4437.7	4707.7	4722.9	4772.3	4658.2
35°	6122.3	6069.0	5894.1	5568.3	5222.3	4905.4	4882.6	5186.8	5191.9	5243.8	5074.0
37.5°	6962.6	6918.3	6732.0	6412.5	6071.6	5634.3	5422.6	5640.6	5646.9	5697.6	5521.4
40°	7562.2	7581.2	7453.2	7206.0	6913.2	6435.3	6028.5	6123.5	6085.5	6170.4	6065.2
42.5°	8076.8	8114.8	8003.3	7879.1	7709.2	7288.4	6778.8	6762.4	6701.5	6747.2	6638.2
45°	8521.7	8553.4	8453.3	8424.1	8420.3	8125.0	7599.0	7500.1	7415.2	7406.3	7275.7
47.5°	8685.2	8746.1	8789.2	8886.8	9076.9	8952.7	8446.9	8293.6	8198.5	8128.8	7922.2
50°	8747.4	8812.0	8959.0	9243.0	9692.9	9746.2	9291.1	9118.7	9002.1	8875.4	8571.2
52.5°	8663.7	8779.0	8976.8	9454.6	10107.4	10382.5	10101.1	9950.3	9817.2	9610.6	9159.3
55°	8170.6	8286.0	8690.3	9452.1	10314.0	10828.7	10866.7	10799.5	10649.9	10324.2	9634.6
57.5°	7131.2	7302.3	7942.5	9130.2	10310.2	11212.7	11617.1	11665.2	11497.9	11031.5	10008.6
60°	5691.3	5923.3	6704.1	8416.5	9992.1	11420.6	12274.9	12515.8	12338.3	11728.6	10311.5
62.5°	3971.2	4239.9	4978.9	7298.5	9264.5	11271.0	12755.3	13200.3	13065.9	12352.3	10428.1
65°	2422.3	2508.5	3104.2	5743.3	8027.4	10644.9	12903.6	13570.4	13526.0	12733.8	10255.7
67.5°	1613.6	1685.8	1857.0	3938.3	6231.3	9393.8	12548.7	13505.7	13518.4	12671.7	9624.5
70°	972.2	1034.3	1145.9	2290.5	4038.4	7435.4	11449.8	12681.8	12755.3	11841.4	8427.9
72.5°	400.5	442.4	543.8	1038.1	2091.5	4719.1	9117.5	10888.2	11059.4	9956.6	6468.3
75°	226.9	248.4	319.4	521.0	907.6	2199.2	5522.7	7729.5	7981.8	6862.5	3891.4
77.5°	150.8	161.0	206.6	337.2	510.8	750.4	2360.2	4027.0	4508.7	3748.1	1684.6
80°	101.4	110.3	142.0	225.6	332.1	322.0	751.7	1491.9	1835.4	1287.8	410.7
82.5°	68.4	69.7	101.4	148.3	210.4	155.9	221.8	463.9	583.1	372.7	155.9
85°	39.3	38.0	74.8	86.2	93.8	64.6	67.2	139.4	182.5	157.2	88.7
87.5°	5.1	7.6	29.2	22.8	12.7	13.9	13.9	24.1	35.5	38.0	19.0
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°	2199.2	2199.2	2199.2	2199.2	2199.2	2199.2	2199.2	2199.2	2199.2	2199.2	2199.2
2.5°	2201.7	2200.5	2196.7	2192.9	2184.0	2178.9	2181.5	2178.9	2177.6	2178.9	2184.0
5°	2218.2	2214.4	2204.3	2191.6	2173.8	2152.3	2138.4	2118.1	2099.1	2087.7	2090.2
7.5°	2262.6	2258.8	2244.8	2209.3	2152.3	2062.3	1979.9	1907.7	1853.2	1821.5	1822.7
10°	2333.6	2327.2	2305.7	2227.1	2077.5	1881.0	1717.5	1581.9	1493.2	1451.3	1447.5
12.5°	2417.2	2409.6	2371.6	2210.6	1935.5	1628.8	1403.2	1252.3	1169.9	1133.2	1129.4
15°	2516.1	2505.9	2431.2	2132.0	1728.9	1349.9	1143.3	1030.5	977.3	944.3	945.6
17.5°	2639.0	2621.3	2475.5	2014.1	1504.6	1137.0	983.6	898.7	851.8	820.1	817.6
20°	2798.7	2769.6	2511.0	1873.4	1298.0	1002.6	875.9	804.9	769.4	741.5	736.4
22.5°	3021.8	2980.0	2554.1	1721.3	1152.2	910.1	796.0	744.1	714.9	683.2	678.1
25°	3298.2	3248.7	2607.3	1580.6	1052.1	830.2	737.7	694.6	660.4	623.6	619.8
27.5°	3684.8	3596.0	2670.7	1465.3	965.9	761.8	684.5	636.3	597.0	566.6	560.3
30°	4115.7	3970.0	2726.5	1395.6	887.3	698.4	614.8	566.6	529.8	508.3	504.5
32.5°	4523.9	4326.1	2763.3	1365.1	816.3	626.2	538.7	486.7	458.9	452.5	456.3
35°	4909.2	4648.1	2759.5	1336.0	752.9	553.9	463.9	410.7	389.1	392.9	392.9
37.5°	5352.9	4991.6	2732.8	1290.4	701.0	488.0	399.3	352.4	333.4	334.6	339.7
40°	5868.7	5388.3	2716.4	1204.2	643.9	427.2	346.0	308.0	294.1	289.0	287.7
42.5°	6418.9	5772.4	2718.9	1106.6	572.9	372.7	309.3	277.6	264.9	261.1	259.8
45°	6971.5	6138.7	2722.7	1005.2	498.1	330.8	282.7	256.0	248.4	243.4	243.4
47.5°	7491.2	6450.6	2651.7	896.2	424.6	299.1	261.1	243.4	237.0	230.7	230.7
50°	7975.4	6658.4	2480.6	769.4	366.3	273.8	244.6	232.0	225.6	219.3	219.3
52.5°	8351.9	6691.4	2197.9	638.8	325.8	254.8	234.5	223.1	215.5	209.1	207.9
55°	8519.2	6484.8	1796.1	517.2	294.1	238.3	224.4	212.9	204.1	197.7	196.5
57.5°	8476.1	6050.0	1400.6	415.8	263.7	221.8	211.7	204.1	193.9	183.8	182.5
60°	8264.4	5468.2	1055.9	346.0	235.8	204.1	197.7	191.4	177.5	162.2	159.7
62.5°	7898.1	4736.8	752.9	286.5	205.3	183.8	181.3	176.2	155.9	128.0	125.5
65°	7337.8	3848.3	507.0	238.3	176.2	161.0	162.2	153.4	126.8	95.1	92.5
67.5°	6519.0	2814.0	324.5	195.2	147.0	134.4	135.6	130.6	107.7	81.1	77.3
70°	5475.8	1863.3	211.7	148.3	117.9	103.9	111.5	112.8	91.3	65.9	63.4
72.5°	4014.3	1100.2	148.3	110.3	86.2	72.3	91.3	93.8	73.5	49.4	46.9
75°	2287.9	522.2	111.5	79.9	53.2	50.7	71.0	71.0	50.7	33.0	30.4
77.5°	960.8	218.0	78.6	52.0	30.4	29.2	48.2	44.4	25.4	15.2	15.2
80°	277.6	97.6	41.8	25.4	12.7	11.4	19.0	13.9	6.3	2.5	2.5
82.5°	109.0	43.1	16.5	10.1	5.1	5.1	2.5	0.0	0.0	0.0	0.0
85°	64.6	17.7	7.6	3.8	1.3	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	16.5	3.8	2.5	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	0.0

(END OF REPORT)