

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: P882758

Luminaire Tested: **NAV-SB2D-740-U-T3-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882758
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-SB2D-740-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 4000K, 900mA 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: 17536 lumens
Efficiency: N/A
Efficacy: 118.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G3

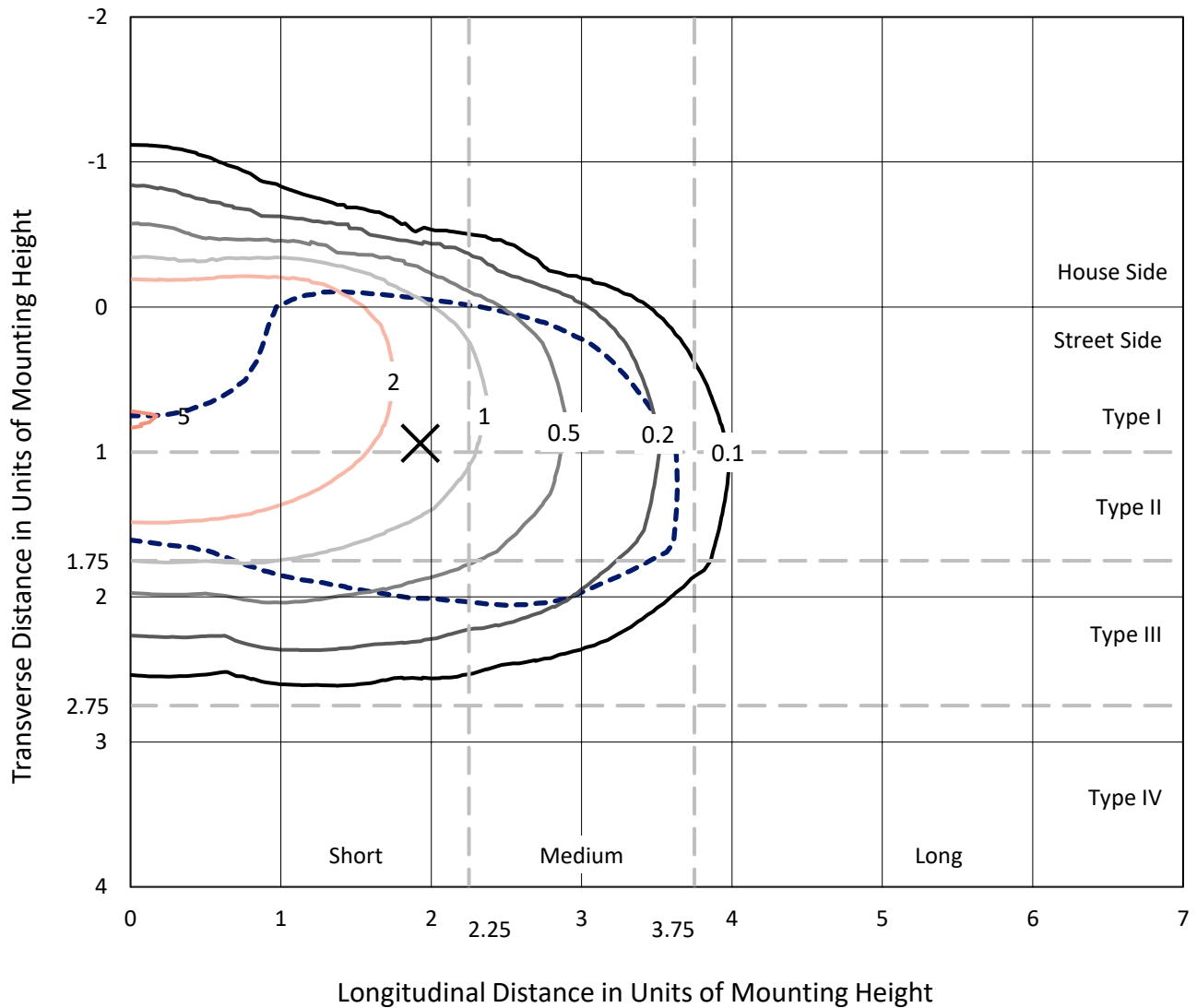
Input Watts (W): 147.6
Input Voltage (V): 120.0
Input Current (Ain): 1.234
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 3.108
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

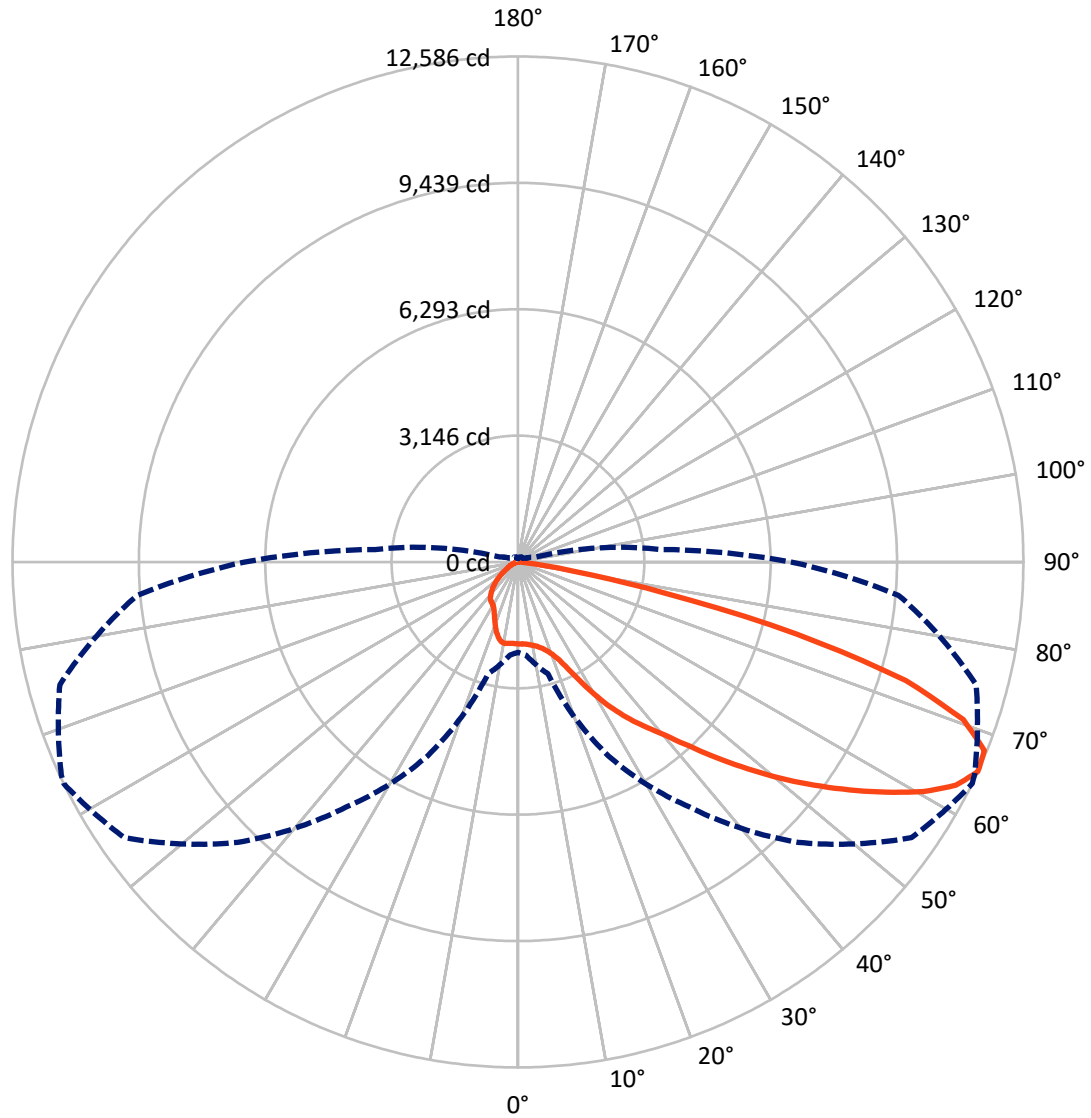
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.1 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
House Side	Lumens	2345.1	0.0	2345.1
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	15190.9	0.0	15190.9
	% Fixture	86.6	0.0	86.6
Total	Lumens	17536.0	0.0	17536.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	188.2	1.1
10°-20°	510.4	2.9
20°-30°	967.1	5.5
30°-40°	1957.0	11.2
40°-50°	3333.8	19.0
50°-60°	4533.7	25.9
60°-70°	4257.4	24.3
70°-80°	1705.7	9.7
80°-90°	82.6	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°	17536.0	100.0
0°-180°	17536.0	100.0

Coefficient of Utilization



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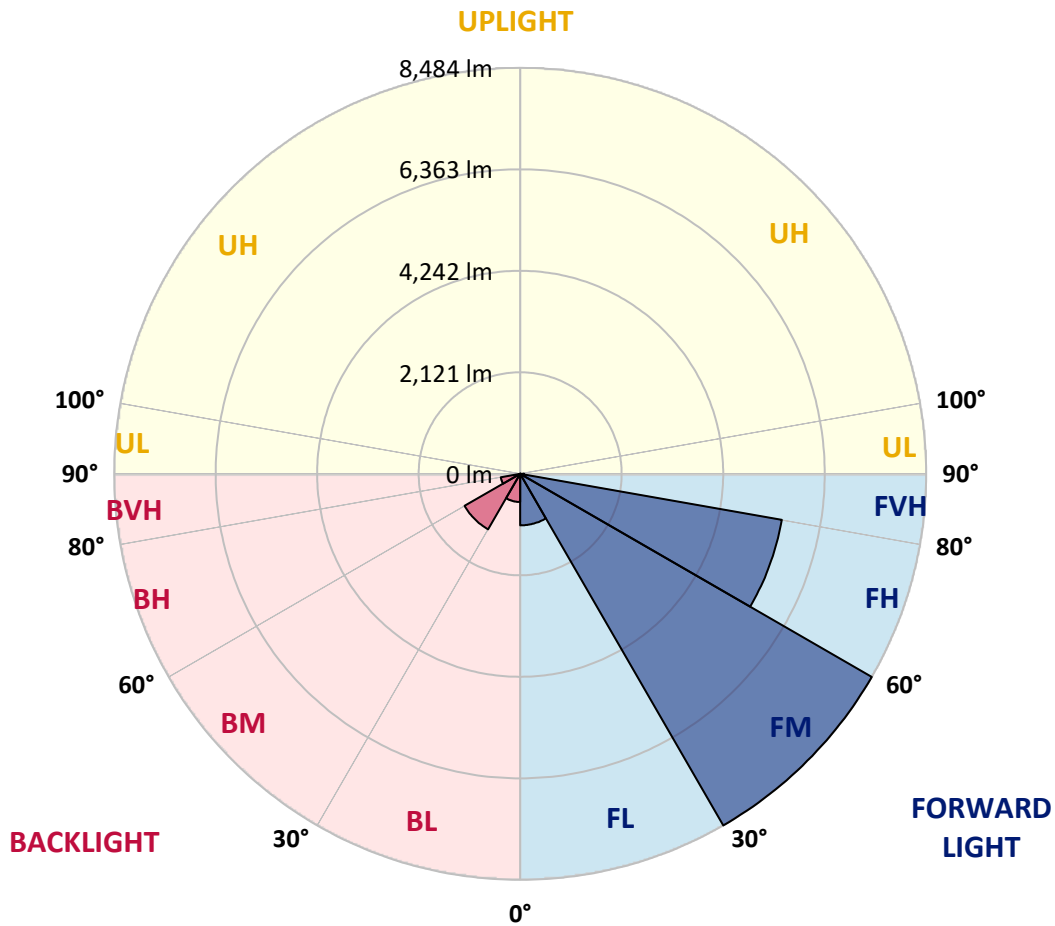
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1076.9	6.1			
FM (30°-60°)	8483.9	48.4			
FH (60°-80°)	5551.5	31.7			G3/7500
FVH (80°-90°)	78.6	0.4			G1/100
BL (0°-30°)	588.8	3.4	B2/1000		
BM (30°-60°)	1340.7	7.6	B2/2500		
BH (60°-80°)	411.6	2.3	B1/500		G1/500
BVH (80°-90°)	4.0	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 III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	2039.6	2039.6	2039.6	2039.6	2039.6	2039.6	2039.6	2039.6	2039.6	2039.6	2039.6
2.5°	2032.6	2046.7	2043.1	2039.6	2038.4	2040.8	2042.0	2040.8	2040.8	2040.8	2042.0
5°	1993.8	2005.5	2005.5	2013.8	2025.5	2039.6	2050.2	2052.6	2054.9	2058.4	2057.3
7.5°	1919.7	1929.1	1936.2	1963.2	1992.6	2030.2	2062.0	2078.4	2080.8	2093.7	2098.4
10°	1869.2	1880.9	1892.7	1920.9	1963.2	2019.6	2073.7	2113.7	2119.6	2150.1	2164.2
12.5°	1866.8	1878.6	1893.8	1924.4	1973.8	2033.7	2099.6	2157.2	2167.8	2212.4	2241.8
15°	1891.5	1905.6	1919.7	1957.3	2010.2	2083.1	2153.6	2225.4	2235.9	2299.4	2331.2
17.5°	1942.0	1960.9	1971.4	2009.1	2065.5	2146.6	2239.5	2321.8	2331.2	2405.2	2445.2
20°	2042.0	2064.3	2067.8	2098.4	2153.6	2240.6	2351.1	2453.4	2465.2	2549.8	2594.5
22.5°	2248.9	2280.6	2252.4	2267.7	2317.1	2404.0	2524.0	2653.3	2669.7	2766.1	2806.1
25°	2613.3	2658.0	2585.1	2559.2	2580.4	2670.9	2821.4	2984.8	3003.6	3081.2	3101.2
27.5°	3329.2	3271.6	3161.1	3053.0	2989.5	3041.2	3210.5	3412.7	3436.2	3511.4	3487.9
30°	4115.7	4065.1	3915.8	3676.0	3525.5	3517.3	3673.7	3899.4	3926.4	3998.1	3926.4
32.5°	4903.3	4855.1	4692.9	4397.8	4136.8	4007.5	4115.7	4366.1	4380.2	4426.0	4320.2
35°	5678.0	5628.6	5466.4	5164.3	4843.4	4549.5	4528.3	4810.4	4815.1	4863.3	4705.8
37.5°	6457.4	6416.3	6243.5	5947.2	5631.0	5225.4	5029.1	5231.3	5237.2	5284.2	5120.8
40°	7013.5	7031.1	6912.4	6683.1	6411.6	5968.4	5591.0	5679.2	5643.9	5722.7	5625.1
42.5°	7490.8	7526.0	7422.6	7307.4	7149.8	6759.5	6287.0	6271.7	6215.3	6257.6	6156.5
45°	7903.4	7932.8	7839.9	7812.9	7809.3	7535.4	7047.6	6955.9	6877.1	6868.9	6747.8
47.5°	8055.0	8111.5	8151.4	8241.9	8418.3	8303.1	7834.0	7691.8	7603.6	7538.9	7347.3
50°	8112.6	8172.6	8308.9	8572.3	8989.6	9039.0	8616.9	8457.1	8348.9	8231.4	7949.2
52.5°	8035.0	8142.0	8325.4	8768.6	9374.0	9629.1	9368.1	9228.2	9104.8	8913.2	8494.7
55°	7577.7	7684.7	8059.7	8766.2	9565.6	10042.9	10078.2	10015.9	9877.2	9575.0	8935.5
57.5°	6613.8	6772.5	7366.1	8467.7	9562.1	10399.1	10774.1	10818.8	10663.6	10231.0	9282.3
60°	5278.3	5493.5	6217.6	7805.8	9267.0	10591.9	11384.2	11607.6	11443.0	10877.6	9563.3
62.5°	3683.1	3932.3	4617.7	6768.9	8592.3	10453.2	11829.8	12242.4	12117.8	11456.0	9671.4
65°	2246.5	2326.5	2879.0	5326.5	7444.9	9872.5	11967.3	12585.7	12544.5	11809.8	9511.6
67.5°	1496.5	1563.5	1722.2	3652.5	5779.1	8712.2	11638.2	12525.7	12537.5	11752.2	8926.1
70°	901.7	959.3	1062.7	2124.3	3745.4	6895.9	10618.9	11761.6	11829.8	10982.2	7816.4
72.5°	371.5	410.3	504.3	962.8	1939.7	4376.7	8455.9	10098.2	10256.9	9234.1	5998.9
75°	210.4	230.4	296.2	483.2	841.7	2039.6	5122.0	7168.6	7402.6	6364.6	3609.0
77.5°	139.9	149.3	191.6	312.7	473.8	695.9	2188.9	3734.8	4181.5	3476.2	1562.3
80°	94.0	102.3	131.7	209.3	308.0	298.6	697.1	1383.6	1702.2	1194.4	380.9
82.5°	63.5	64.7	94.0	137.5	195.1	144.6	205.7	430.3	540.8	345.6	144.6
85°	36.4	35.3	69.4	79.9	87.0	60.0	62.3	129.3	169.3	145.8	82.3
87.5°	4.7	7.1	27.0	21.2	11.8	12.9	12.9	22.3	32.9	35.3	17.6
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°	2039.6	2039.6	2039.6	2039.6	2039.6	2039.6	2039.6	2039.6	2039.6	2039.6	2039.6
2.5°	2042.0	2040.8	2037.3	2033.7	2025.5	2020.8	2023.2	2020.8	2019.6	2020.8	2025.5
5°	2057.3	2053.7	2044.3	2032.6	2016.1	1996.1	1983.2	1964.4	1946.7	1936.2	1938.5
7.5°	2098.4	2094.9	2081.9	2049.0	1996.1	1912.7	1836.2	1769.2	1718.7	1689.3	1690.5
10°	2164.2	2158.4	2138.4	2065.5	1926.8	1744.6	1592.9	1467.1	1384.8	1346.0	1342.5
12.5°	2241.8	2234.8	2199.5	2050.2	1795.1	1510.6	1301.4	1161.5	1085.1	1051.0	1047.4
15°	2333.5	2324.1	2254.7	1977.3	1603.5	1252.0	1060.4	955.7	906.4	875.8	877.0
17.5°	2447.5	2431.1	2295.9	1868.0	1395.4	1054.5	912.2	833.5	790.0	760.6	758.2
20°	2595.7	2568.6	2328.8	1737.5	1203.8	929.9	812.3	746.5	713.6	687.7	683.0
22.5°	2802.6	2763.8	2368.8	1596.4	1068.6	844.1	738.3	690.1	663.0	633.6	628.9
25°	3058.8	3013.0	2418.2	1465.9	975.7	770.0	684.2	644.2	612.5	578.4	574.9
27.5°	3417.4	3335.1	2476.9	1359.0	895.8	706.5	634.8	590.1	553.7	525.5	519.6
30°	3817.1	3681.9	2528.7	1294.3	822.9	647.7	570.2	525.5	491.4	471.4	467.9
32.5°	4195.6	4012.2	2562.7	1266.1	757.1	580.7	499.6	451.4	425.6	419.7	423.2
35°	4553.0	4310.8	2559.2	1239.1	698.3	513.7	430.3	380.9	360.9	364.4	364.4
37.5°	4964.4	4629.4	2534.5	1196.7	650.1	452.6	370.3	326.8	309.2	310.4	315.1
40°	5442.9	4997.4	2519.3	1116.8	597.2	396.2	320.9	285.7	272.7	268.0	266.9
42.5°	5953.1	5353.6	2521.6	1026.3	531.4	345.6	286.8	257.5	245.7	242.2	241.0
45°	6465.7	5693.3	2525.1	932.2	462.0	306.8	262.2	237.5	230.4	225.7	225.7
47.5°	6947.6	5982.5	2459.3	831.1	393.8	277.4	242.2	225.7	219.8	214.0	214.0
50°	7396.7	6175.3	2300.6	713.6	339.7	253.9	226.9	215.1	209.3	203.4	203.4
52.5°	7745.8	6205.8	2038.4	592.5	302.1	236.3	217.5	206.9	199.8	194.0	192.8
55°	7901.0	6014.2	1665.8	479.6	272.7	221.0	208.1	197.5	189.3	183.4	182.2
57.5°	7861.1	5611.0	1299.0	385.6	244.5	205.7	196.3	189.3	179.9	170.5	169.3
60°	7664.7	5071.4	979.3	320.9	218.7	189.3	183.4	177.5	164.6	150.5	148.1
62.5°	7325.0	4393.1	698.3	265.7	190.4	170.5	168.1	163.4	144.6	118.7	116.4
65°	6805.4	3569.0	470.2	221.0	163.4	149.3	150.5	142.2	117.6	88.2	85.8
67.5°	6046.0	2609.8	300.9	181.0	136.4	124.6	125.8	121.1	99.9	75.2	71.7
70°	5078.5	1728.1	196.3	137.5	109.3	96.4	103.5	104.6	84.6	61.1	58.8
72.5°	3723.0	1020.4	137.5	102.3	79.9	67.0	84.6	87.0	68.2	45.8	43.5
75°	2121.9	484.3	103.5	74.1	49.4	47.0	65.8	65.8	47.0	30.6	28.2
77.5°	891.1	202.2	72.9	48.2	28.2	27.0	44.7	41.1	23.5	14.1	14.1
80°	257.5	90.5	38.8	23.5	11.8	10.6	17.6	12.9	5.9	2.4	2.4
82.5°	101.1	40.0	15.3	9.4	4.7	4.7	2.4	0.0	0.0	0.0	0.0
85°	60.0	16.5	7.1	3.5	1.2	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	15.3	3.5	2.4	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)