

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: P882806

Luminaire Tested: **NAV-SB2D-835-U-T2-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882806
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2D-835-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12778 lumens
Efficiency: N/A
Efficacy: 86.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

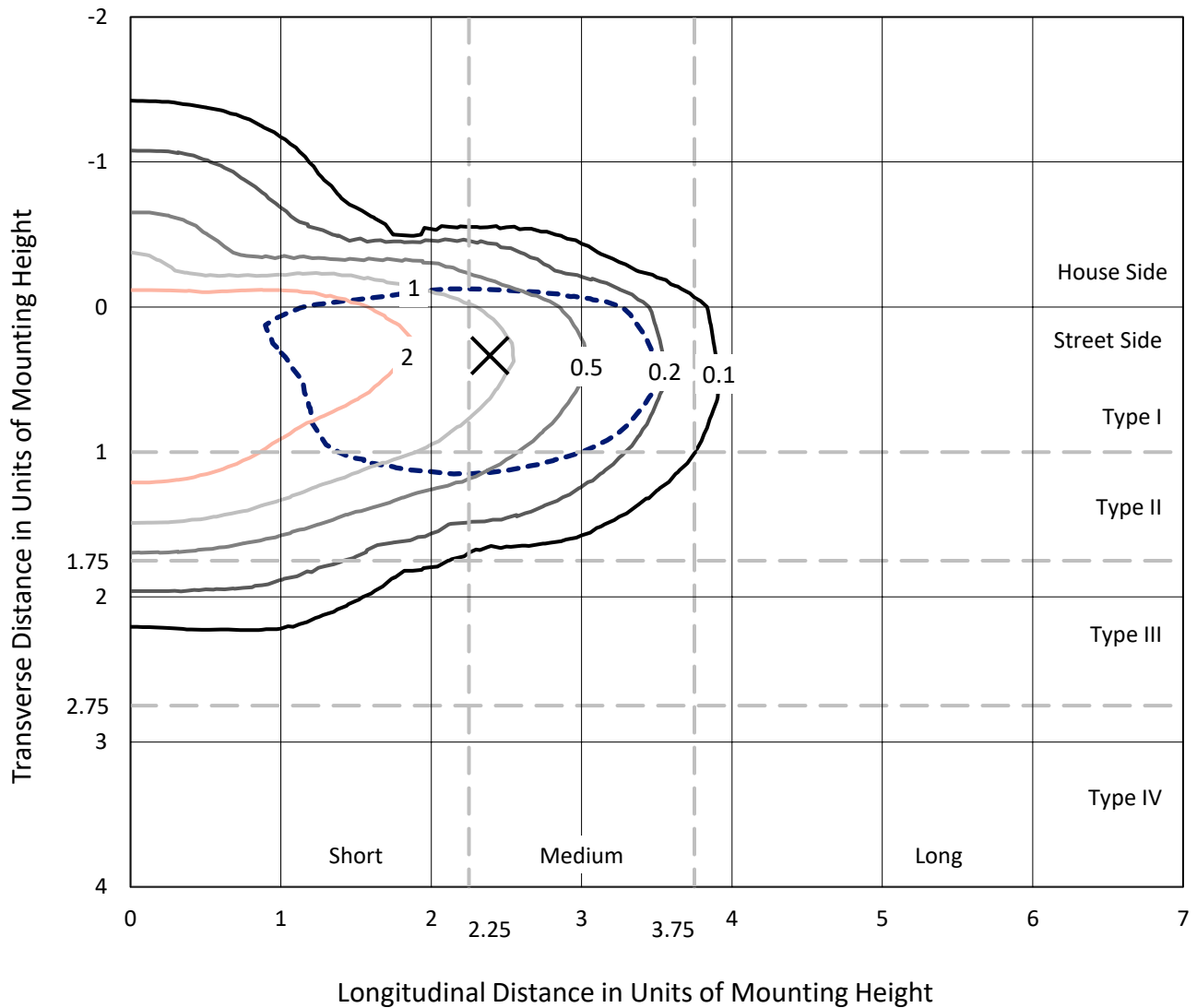
Input Watts (W): 147.6
Input Voltage (V): 120.0
Input Current (Ain): 1.234
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 3.108
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

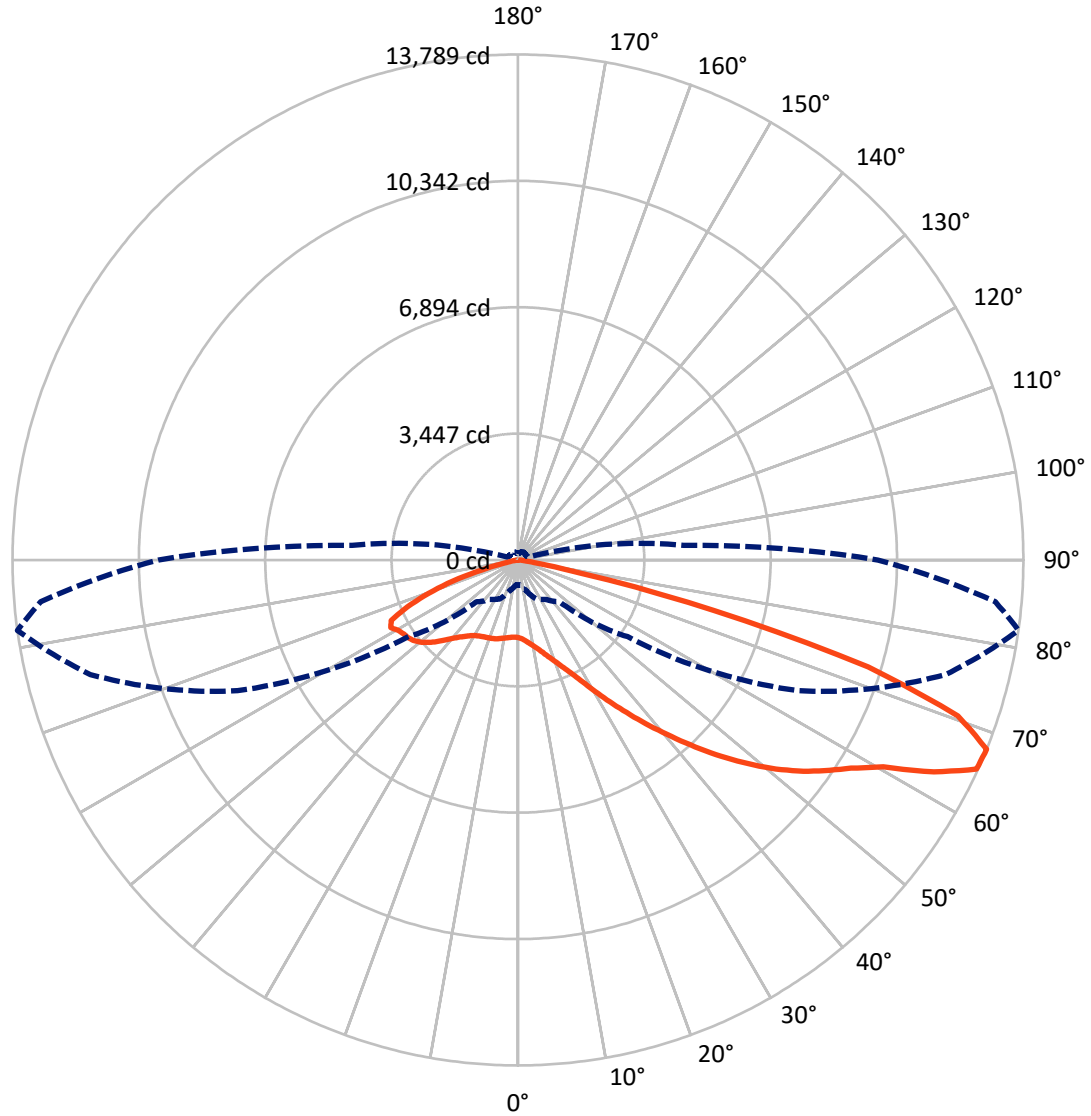
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.5 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2314.6	0.0	2314.6
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	10463.4	0.0	10463.4
	% Fixture	81.9	0.0	81.9
Total	Lumens	12778.0	0.0	12778.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	188.6	1.5
10°-20°	490.1	3.8
20°-30°	785.0	6.1
30°-40°	1388.1	10.9
40°-50°	2432.0	19.0
50°-60°	3243.6	25.4
60°-70°	3019.7	23.6
70°-80°	1159.0	9.1
80°-90°	72.0	0.6
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°	12778.0	100.0
0°-180°	12778.0	100.0

Coefficient of Utilization



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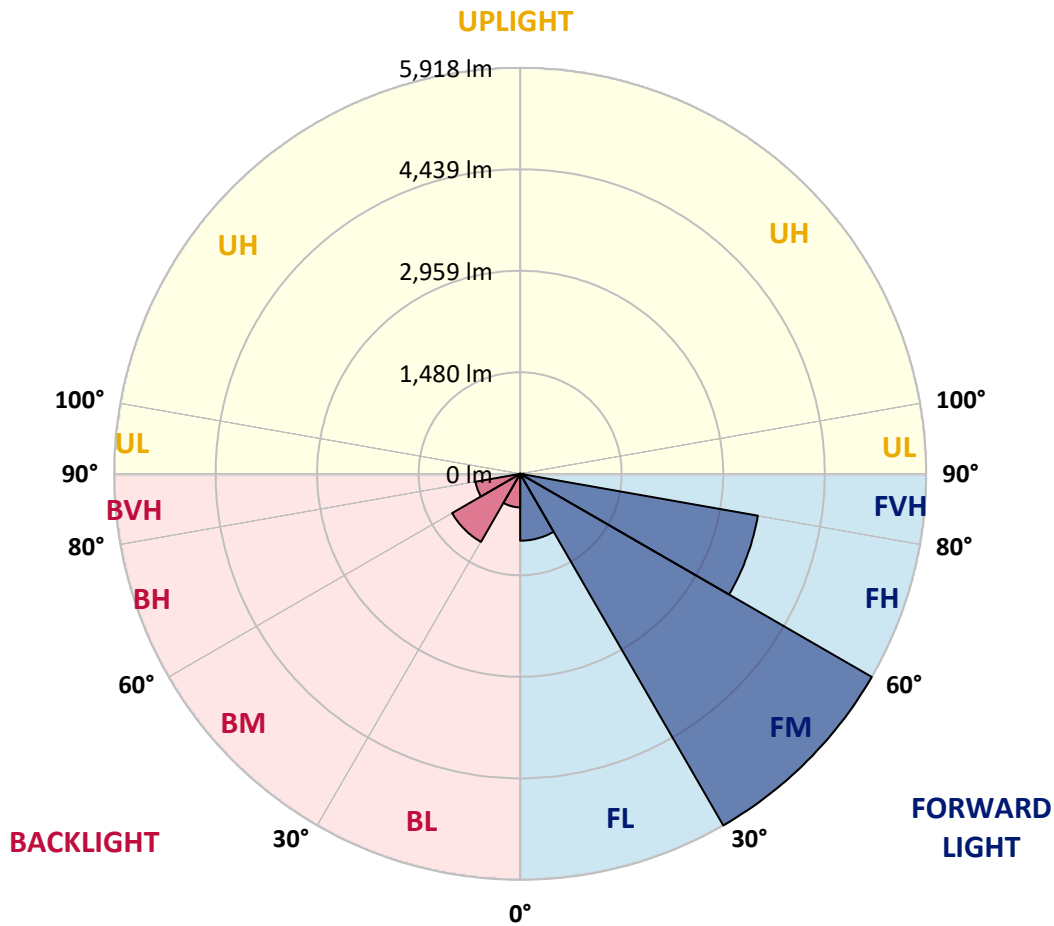
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	974.8	7.6			
FM (30°-60°)	5918.3	46.3			
FH (60°-80°)	3518.0	27.5			G2/5000
FVH (80°-90°)	52.3	0.4			G1/100
BL (0°-30°)	488.8	3.8	B1/500		
BM (30°-60°)	1145.5	9.0	B2/2500		
BH (60°-80°)	660.6	5.2	B2/1000		G2/1000
BVH (80°-90°)	19.7	0.2			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°	82°	85°
0°	2116.9	2116.9	2116.9	2116.9	2116.9	2116.9	2116.9	2116.9	2116.9	2116.9	2116.9
2.5°	2237.4	2250.3	2242.9	2239.2	2232.8	2223.6	2216.2	2193.2	2169.3	2153.7	2148.2
5°	2282.5	2295.4	2294.4	2298.1	2302.7	2305.5	2303.6	2277.9	2243.8	2217.2	2201.5
7.5°	2243.8	2258.6	2270.5	2288.9	2321.1	2355.2	2371.7	2366.2	2331.2	2294.4	2275.1
10°	2134.4	2150.0	2178.5	2221.8	2289.8	2363.4	2425.1	2453.6	2431.5	2391.0	2364.4
12.5°	1933.8	1949.4	2005.6	2099.4	2213.5	2341.4	2459.1	2535.5	2541.0	2500.5	2469.2
15°	1708.4	1724.0	1783.8	1901.6	2075.5	2280.6	2477.5	2622.0	2670.7	2635.8	2598.0
17.5°	1568.6	1582.4	1627.5	1722.2	1903.4	2159.2	2471.1	2714.0	2825.3	2797.7	2752.6
20°	1526.3	1538.2	1559.4	1625.6	1776.5	2033.2	2428.8	2800.4	2991.8	2976.1	2925.5
22.5°	1571.3	1582.4	1588.8	1618.3	1713.0	1950.4	2375.4	2888.7	3185.0	3186.8	3125.2
25°	1675.3	1686.3	1679.0	1697.4	1738.8	1924.6	2355.2	2992.7	3427.9	3448.1	3378.2
27.5°	1846.4	1847.3	1829.8	1828.9	1835.4	1963.2	2376.3	3104.0	3734.2	3771.9	3685.5
30°	2189.6	2175.8	2108.6	2035.9	2002.8	2079.2	2435.2	3235.6	4095.8	4162.9	4054.4
32.5°	2718.6	2698.3	2575.0	2401.2	2226.4	2265.9	2541.0	3385.5	4489.5	4611.0	4478.5
35°	3292.6	3287.1	3158.3	2899.8	2594.4	2531.8	2713.0	3582.4	4919.2	5112.3	4955.0
37.5°	3826.2	3823.5	3749.9	3445.3	3073.7	2902.5	2989.0	3840.0	5379.1	5658.8	5473.0
40°	4313.8	4322.1	4248.5	3976.2	3601.7	3378.2	3364.4	4158.3	5890.7	6254.0	6033.3
42.5°	4735.2	4744.4	4669.8	4468.4	4123.4	3904.4	3825.3	4548.4	6390.2	6893.4	6632.2
45°	5021.3	5078.3	5067.3	4906.3	4658.8	4431.6	4379.1	5037.8	6959.7	7571.5	7265.1
47.5°	5102.2	5154.7	5237.5	5259.5	5108.7	4885.1	4947.7	5627.5	7535.6	8250.4	7901.7
50°	4902.6	4951.4	5123.4	5352.5	5457.3	5388.3	5500.6	6259.6	8125.3	8927.5	8526.4
52.5°	4508.8	4558.5	4775.6	5138.1	5565.9	5783.0	6055.3	6882.4	8696.6	9568.7	9118.0
55°	3939.4	3991.8	4270.6	4680.9	5358.9	5945.9	6518.1	7504.3	9220.1	10145.6	9651.5
57.5°	3164.7	3203.4	3493.2	4067.2	4838.2	5783.9	6859.4	8183.3	9713.2	10712.3	10180.5
60°	2062.6	2096.6	2433.4	3073.7	3975.2	5243.0	6927.5	8940.4	10368.2	11449.2	10893.5
62.5°	1371.7	1394.7	1594.3	2064.4	2799.5	4204.3	6529.1	9544.8	11328.7	12731.7	12116.2
65°	941.1	964.1	1163.8	1491.3	1808.7	2781.1	5383.7	9464.8	12199.0	13750.1	13022.4
67.5°	671.6	690.9	860.2	1169.3	1309.1	1615.5	3649.6	8441.8	12073.9	13788.7	13071.1
70°	481.2	492.2	632.0	910.8	1040.5	970.6	2029.5	6456.4	10571.5	12732.6	12075.7
72.5°	336.7	340.4	438.8	693.7	838.1	708.4	966.0	4304.6	7995.6	9993.8	9361.8
75°	228.2	232.8	295.3	508.8	672.5	541.0	511.5	2308.2	4693.8	5531.9	4958.7
77.5°	139.8	141.7	190.4	347.8	503.2	412.2	329.4	977.9	1816.0	1782.9	1519.8
80°	79.1	79.1	121.4	216.2	343.2	265.9	230.9	415.8	575.0	505.1	445.3
82.5°	44.2	45.1	88.3	134.3	227.2	157.3	127.0	192.3	248.4	219.9	191.4
85°	18.4	20.2	54.3	63.5	108.6	78.2	51.5	81.0	92.0	81.9	59.8
87.5°	1.8	2.8	16.6	12.0	12.9	15.6	7.4	15.6	12.9	12.9	9.2
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°	2116.9	2116.9	2116.9	2116.9	2116.9	2116.9	2116.9	2116.9	2116.9	2116.9	2116.9
2.5°	2130.7	2116.9	2081.9	2041.4	1988.1	1962.3	1927.4	1903.4	1883.2	1885.0	1866.6
5°	2172.1	2137.1	2058.9	1961.4	1840.0	1753.5	1661.5	1598.0	1546.5	1535.5	1510.6
7.5°	2229.1	2173.9	2036.8	1861.1	1656.0	1500.5	1361.6	1272.3	1208.9	1188.6	1168.4
10°	2302.7	2222.7	2008.3	1735.1	1439.8	1242.0	1092.9	1023.0	979.8	965.1	954.0
12.5°	2388.3	2278.8	1970.6	1581.5	1217.1	1026.7	931.9	897.0	883.2	878.6	875.8
15°	2495.9	2348.7	1913.6	1399.3	1028.5	895.1	854.7	850.1	851.9	850.1	849.1
17.5°	2623.8	2425.1	1820.6	1211.6	901.6	828.0	813.3	816.9	821.5	820.6	818.8
20°	2763.6	2500.5	1702.0	1045.1	815.1	780.1	771.9	775.5	779.2	777.4	776.5
22.5°	2922.8	2581.5	1570.4	915.4	757.1	736.0	726.8	727.7	727.7	724.0	722.2
25°	3113.2	2670.7	1432.4	823.4	713.0	696.4	685.4	681.7	676.2	665.1	663.3
27.5°	3340.5	2765.5	1299.9	759.0	678.0	662.4	649.5	640.3	626.5	608.1	606.3
30°	3596.2	2880.5	1187.7	718.5	650.4	634.8	620.1	606.3	586.0	563.0	561.2
32.5°	3897.1	3003.7	1105.8	691.8	625.6	609.0	591.5	575.0	552.9	529.9	530.8
35°	4255.8	3152.8	1058.0	673.4	606.3	584.2	564.9	546.5	529.9	509.7	507.8
37.5°	4645.0	3311.0	1043.3	664.2	593.4	559.4	537.3	524.4	522.6	510.6	509.7
40°	5070.9	3498.7	1054.3	658.7	579.6	535.4	511.5	508.8	513.4	492.2	493.1
42.5°	5521.7	3721.3	1072.7	652.3	560.3	511.5	488.5	488.5	484.8	455.4	455.4
45°	6009.3	3978.0	1091.1	636.6	537.3	487.6	470.1	463.7	448.0	419.5	418.6
47.5°	6500.6	4239.3	1104.9	608.1	509.7	467.4	451.7	437.0	414.0	388.2	387.3
50°	6967.0	4473.9	1090.2	565.8	478.4	448.0	431.5	411.2	386.4	368.9	366.2
52.5°	7383.8	4677.2	1027.6	516.1	445.3	427.8	413.1	391.9	371.7	353.3	351.4
55°	7746.3	4841.9	917.2	469.2	415.8	410.3	395.6	368.9	341.3	325.7	323.8
57.5°	8094.0	4967.0	779.2	430.6	389.2	391.0	368.9	345.0	319.2	302.7	300.8
60°	8556.8	5134.4	639.4	394.7	360.6	366.2	342.2	324.8	292.6	271.4	268.6
62.5°	9296.4	5394.8	507.8	350.5	327.5	329.4	319.2	298.1	259.4	234.6	232.8
65°	9883.4	5299.1	400.2	302.7	289.8	292.6	292.6	269.6	228.2	199.6	196.9
67.5°	9817.1	4537.4	319.2	255.8	253.9	255.8	262.2	242.9	202.4	179.4	175.7
70°	9043.4	3609.1	255.8	212.5	220.8	216.2	234.6	221.7	182.2	159.2	156.4
72.5°	7379.2	2599.9	195.0	175.7	169.3	176.6	211.6	199.6	151.8	126.0	123.3
75°	4312.0	1387.3	145.4	138.9	122.4	147.2	187.7	170.2	115.9	92.9	90.2
77.5°	1403.9	483.9	106.7	102.1	91.1	118.7	160.1	143.5	94.8	73.6	70.8
80°	376.3	146.3	72.7	67.2	58.9	88.3	127.0	114.1	68.1	47.8	46.9
82.5°	150.9	61.6	42.3	37.7	32.2	60.7	100.3	92.0	50.6	30.4	30.4
85°	48.8	20.2	15.6	12.0	14.7	37.7	59.8	62.6	35.9	15.6	12.0
87.5°	6.4	2.8	2.8	3.7	2.8	6.4	18.4	17.5	10.1	1.8	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)