

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: P883656

Luminaire Tested: **NAV-SB4A-835-U-T2-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883656
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-SB4A-835-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3500K, 350mA 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: 11201 lumens
Efficiency: N/A
Efficacy: 98.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

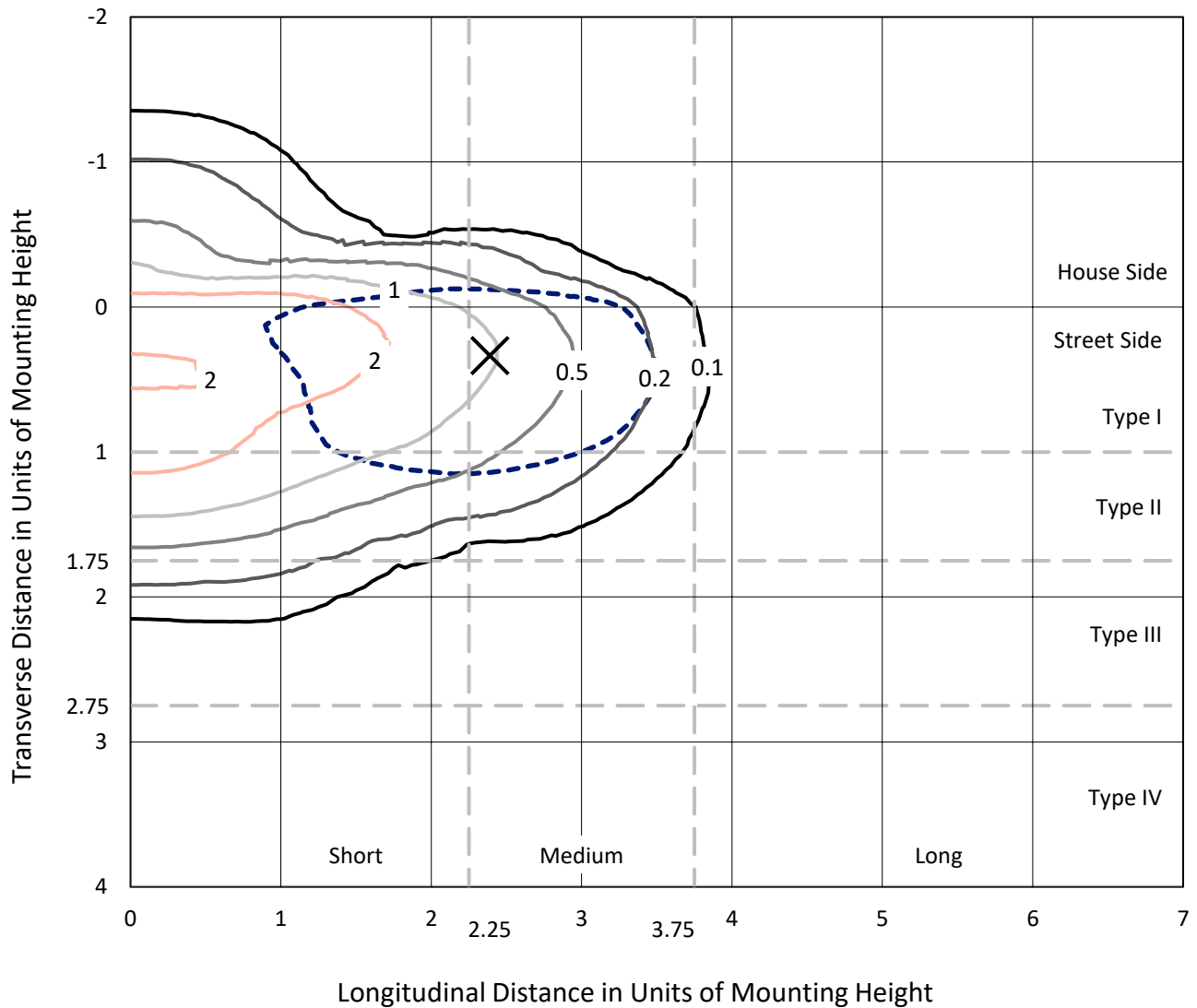
Input Watts (W): 114
Input Voltage (V): 120.0
Input Current (Ain): 0.952
Voltage Rise (V): NR
Power Factor: 0.995
Total Harmonic Distortion (THDi): 8.206
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

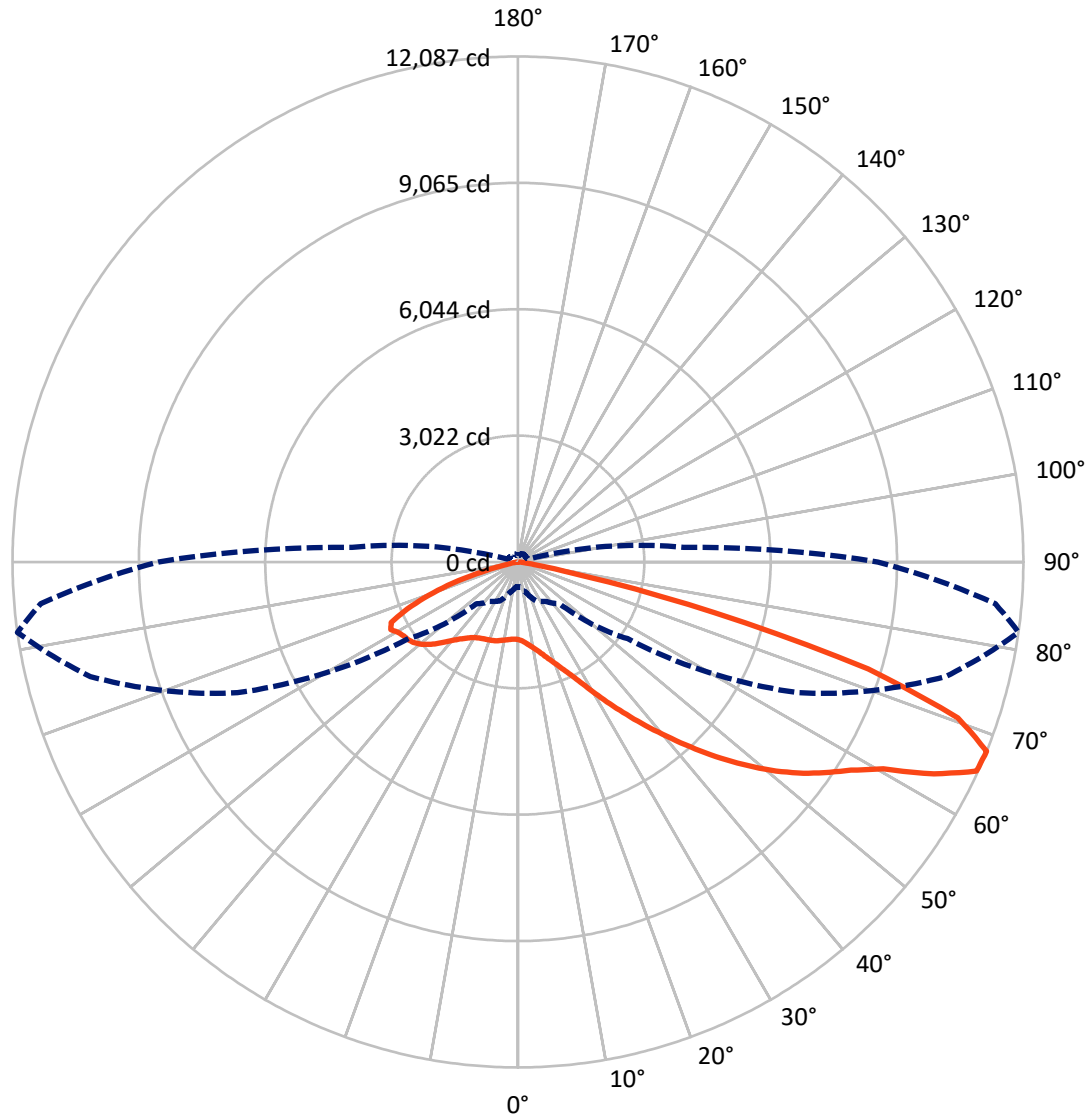
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.9 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	2029.0	0.0	2029.0
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	9172.0	0.0	9172.0
	% Fixture	81.9	0.0	81.9
Total	Lumens	11201.0	0.0	11201.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	165.3	1.5
10°-20°	429.6	3.8
20°-30°	688.1	6.1
30°-40°	1216.8	10.9
40°-50°	2131.9	19.0
50°-60°	2843.3	25.4
60°-70°	2647.0	23.6
70°-80°	1015.9	9.1
80°-90°	63.1	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°	11201.0	100.0
0°-180°	11201.0	100.0

Coefficient of Utilization



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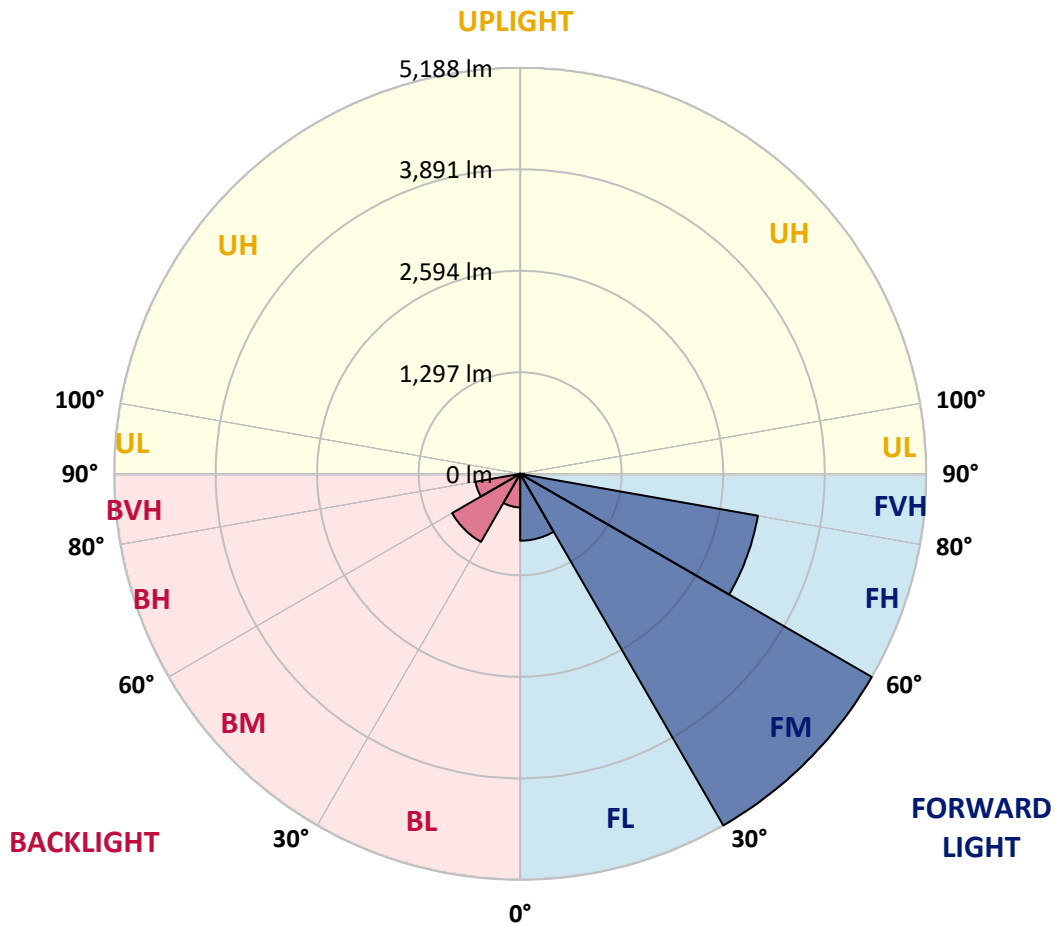
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	854.5	7.6			
FM (30°-60°)	5187.8	46.3			
FH (60°-80°)	3083.8	27.5			G2/5000
FVH (80°-90°)	45.9	0.4			G1/100
BL (0°-30°)	428.5	3.8	B1/500		
BM (30°-60°)	1004.1	9.0	B2/2500		
BH (60°-80°)	579.1	5.2	B2/1000		G2/1000
BVH (80°-90°)	17.2	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°	1855.6	1855.6	1855.6	1855.6	1855.6	1855.6	1855.6	1855.6	1855.6	1855.6	1855.6
2.5°	1961.3	1972.6	1966.1	1962.9	1957.2	1949.2	1942.7	1922.6	1901.6	1887.9	1883.0
5°	2000.8	2012.1	2011.3	2014.5	2018.5	2020.9	2019.3	1996.8	1966.9	1943.5	1929.8
7.5°	1966.9	1979.8	1990.3	2006.4	2034.7	2064.5	2079.0	2074.2	2043.5	2011.3	1994.3
10°	1870.9	1884.7	1909.7	1947.6	2007.2	2071.8	2125.8	2150.8	2131.4	2095.9	2072.6
12.5°	1695.1	1708.9	1758.0	1840.3	1940.3	2052.4	2155.6	2222.6	2227.4	2191.9	2164.5
15°	1497.6	1511.3	1563.7	1666.9	1819.3	1999.2	2171.8	2298.4	2341.1	2310.5	2277.4
17.5°	1375.0	1387.1	1426.6	1509.7	1668.5	1892.7	2166.1	2379.0	2476.6	2452.4	2412.9
20°	1337.9	1348.4	1366.9	1425.0	1557.2	1782.2	2129.0	2454.8	2622.6	2608.8	2564.5
22.5°	1377.4	1387.1	1392.7	1418.5	1501.6	1709.7	2082.2	2532.2	2791.9	2793.5	2739.5
25°	1468.5	1478.2	1471.8	1487.9	1524.2	1687.1	2064.5	2623.4	3004.8	3022.6	2961.3
27.5°	1618.5	1619.3	1604.0	1603.2	1608.9	1721.0	2083.0	2720.9	3273.4	3306.4	3230.6
30°	1919.3	1907.2	1848.4	1784.7	1755.6	1822.6	2134.7	2836.3	3590.3	3649.2	3554.0
32.5°	2383.0	2365.3	2257.2	2104.8	1951.6	1986.3	2227.4	2967.7	3935.4	4041.9	3925.8
35°	2886.3	2881.4	2768.5	2541.9	2274.2	2219.3	2378.2	3140.3	4312.1	4481.4	4343.5
37.5°	3354.0	3351.6	3287.1	3020.1	2694.3	2544.3	2620.1	3366.1	4715.3	4960.4	4797.5
40°	3781.4	3788.7	3724.2	3485.4	3157.2	2961.3	2949.2	3645.1	5163.7	5482.2	5288.7
42.5°	4150.8	4158.8	4093.5	3916.9	3614.5	3422.5	3353.2	3987.1	5601.6	6042.7	5813.7
45°	4401.6	4451.6	4441.9	4300.8	4083.8	3884.6	3838.7	4416.1	6100.7	6637.0	6368.5
47.5°	4472.5	4518.5	4591.1	4610.4	4478.2	4282.2	4337.1	4933.0	6605.6	7232.2	6926.5
50°	4297.5	4340.3	4491.1	4691.9	4783.8	4723.3	4821.7	5487.0	7122.5	7825.7	7474.1
52.5°	3952.4	3995.9	4186.2	4504.0	4879.0	5069.3	5308.0	6033.0	7623.3	8387.8	7992.7
55°	3453.2	3499.2	3743.5	4103.2	4697.5	5212.0	5713.7	6578.2	8082.2	8893.5	8460.4
57.5°	2774.2	2808.0	3062.1	3565.3	4241.1	5070.1	6012.8	7173.3	8514.4	9390.2	8924.1
60°	1808.0	1837.9	2133.0	2694.3	3484.6	4595.9	6072.5	7837.0	9088.6	10036.2	9549.1
62.5°	1202.4	1222.6	1397.6	1809.7	2454.0	3685.4	5723.3	8366.9	9930.5	11160.4	10620.9
65°	825.0	845.2	1020.2	1307.2	1585.5	2437.9	4719.3	8296.7	10693.4	12053.1	11415.2
67.5°	588.7	605.6	754.0	1025.0	1147.6	1416.1	3199.2	7399.9	10583.8	12087.0	11458.0
70°	421.8	431.4	554.0	798.4	912.1	850.8	1779.0	5659.6	9266.8	11161.2	10585.4
72.5°	295.2	298.4	384.7	608.1	734.7	621.0	846.8	3773.3	7008.8	8760.4	8206.4
75°	200.0	204.0	258.9	446.0	589.5	474.2	448.4	2023.4	4114.5	4849.1	4346.7
77.5°	122.6	124.2	166.9	304.8	441.1	361.3	288.7	857.2	1591.9	1562.9	1332.2
80°	69.4	69.4	106.5	189.5	300.8	233.1	202.4	364.5	504.0	442.7	390.3
82.5°	38.7	39.5	77.4	117.7	199.2	137.9	111.3	168.5	217.7	192.7	167.7
85°	16.1	17.7	47.6	55.6	95.2	68.5	45.2	71.0	80.6	71.8	52.4
87.5°	1.6	2.4	14.5	10.5	11.3	13.7	6.5	13.7	11.3	11.3	8.1
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°	1855.6	1855.6	1855.6	1855.6	1855.6	1855.6	1855.6	1855.6	1855.6	1855.6	1855.6
2.5°	1867.7	1855.6	1825.0	1789.5	1742.7	1720.1	1689.5	1668.5	1650.8	1652.4	1636.3
5°	1904.0	1873.4	1804.8	1719.3	1612.9	1537.1	1456.4	1400.8	1355.6	1346.0	1324.2
7.5°	1954.0	1905.6	1785.5	1631.4	1451.6	1315.3	1193.5	1115.3	1059.7	1041.9	1024.2
10°	2018.5	1948.4	1760.5	1521.0	1262.1	1088.7	958.1	896.8	858.9	846.0	836.3
12.5°	2093.5	1997.6	1727.4	1386.3	1066.9	900.0	816.9	786.3	774.2	770.2	767.7
15°	2187.9	2058.9	1677.4	1226.6	901.6	784.7	749.2	745.2	746.8	745.2	744.3
17.5°	2300.0	2125.8	1596.0	1062.1	790.3	725.8	712.9	716.1	720.2	719.3	717.7
20°	2422.6	2191.9	1491.9	916.1	714.5	683.9	676.6	679.8	683.1	681.4	680.6
22.5°	2562.1	2262.9	1376.6	802.4	663.7	645.2	637.1	637.9	637.9	634.7	633.1
25°	2729.0	2341.1	1255.6	721.8	625.0	610.5	600.8	597.6	592.7	583.1	581.4
27.5°	2928.2	2424.2	1139.5	665.3	594.3	580.6	569.3	561.3	549.2	533.1	531.4
30°	3152.4	2525.0	1041.1	629.8	570.2	556.4	543.5	531.4	513.7	493.5	491.9
32.5°	3416.1	2633.0	969.3	606.4	548.4	533.9	518.5	504.0	484.7	464.5	465.3
35°	3730.6	2763.7	927.4	590.3	531.4	512.1	495.2	479.0	464.5	446.8	445.2
37.5°	4071.7	2902.4	914.5	582.3	520.2	490.3	471.0	459.7	458.1	447.6	446.8
40°	4445.1	3066.9	924.2	577.4	508.1	469.4	448.4	446.0	450.0	431.4	432.3
42.5°	4840.3	3262.1	940.3	571.8	491.1	448.4	428.2	428.2	425.0	399.2	399.2
45°	5267.7	3487.1	956.4	558.1	471.0	427.4	412.1	406.4	392.7	367.7	366.9
47.5°	5698.3	3716.1	968.5	533.1	446.8	409.7	396.0	383.1	362.9	340.3	339.5
50°	6107.2	3921.7	955.6	496.0	419.4	392.7	378.2	360.5	338.7	323.4	321.0
52.5°	6472.5	4100.0	900.8	452.4	390.3	375.0	362.1	343.5	325.8	309.7	308.1
55°	6790.3	4244.3	804.0	411.3	364.5	359.7	346.8	323.4	299.2	285.5	283.9
57.5°	7095.1	4354.0	683.1	377.4	341.1	342.7	323.4	302.4	279.8	265.3	263.7
60°	7500.7	4500.8	560.5	346.0	316.1	321.0	300.0	284.7	256.4	237.9	235.5
62.5°	8149.1	4729.0	445.2	307.3	287.1	288.7	279.8	261.3	227.4	205.6	204.0
65°	8663.6	4645.1	350.8	265.3	254.0	256.4	256.4	236.3	200.0	175.0	172.6
67.5°	8605.6	3977.4	279.8	224.2	222.6	224.2	229.8	212.9	177.4	157.3	154.0
70°	7927.3	3163.7	224.2	186.3	193.5	189.5	205.6	194.4	159.7	139.5	137.1
72.5°	6468.5	2279.0	171.0	154.0	148.4	154.8	185.5	175.0	133.1	110.5	108.1
75°	3779.8	1216.1	127.4	121.8	107.3	129.0	164.5	149.2	101.6	81.5	79.0
77.5°	1230.6	424.2	93.5	89.5	79.8	104.0	140.3	125.8	83.1	64.5	62.1
80°	329.8	128.2	63.7	58.9	51.6	77.4	111.3	100.0	59.7	41.9	41.1
82.5°	132.3	54.0	37.1	33.1	28.2	53.2	87.9	80.6	44.4	26.6	26.6
85°	42.7	17.7	13.7	10.5	12.9	33.1	52.4	54.8	31.5	13.7	10.5
87.5°	5.6	2.4	2.4	3.2	2.4	5.6	16.1	15.3	8.9	1.6	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)