

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: P197299

Luminaire Tested: **NAV-AF-01-D-UNV-T3R-8030-1200**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P197299  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24250)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-AF-01-D-UNV-T3R-8030-1200  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(1) 80 CRI, 3000K, 1200mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE III  
ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5563 lumens  
Efficiency: N/A  
Efficacy: 83.0 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Medium - Full Cutoff  
BUG Rating: B1 - U0 - G2

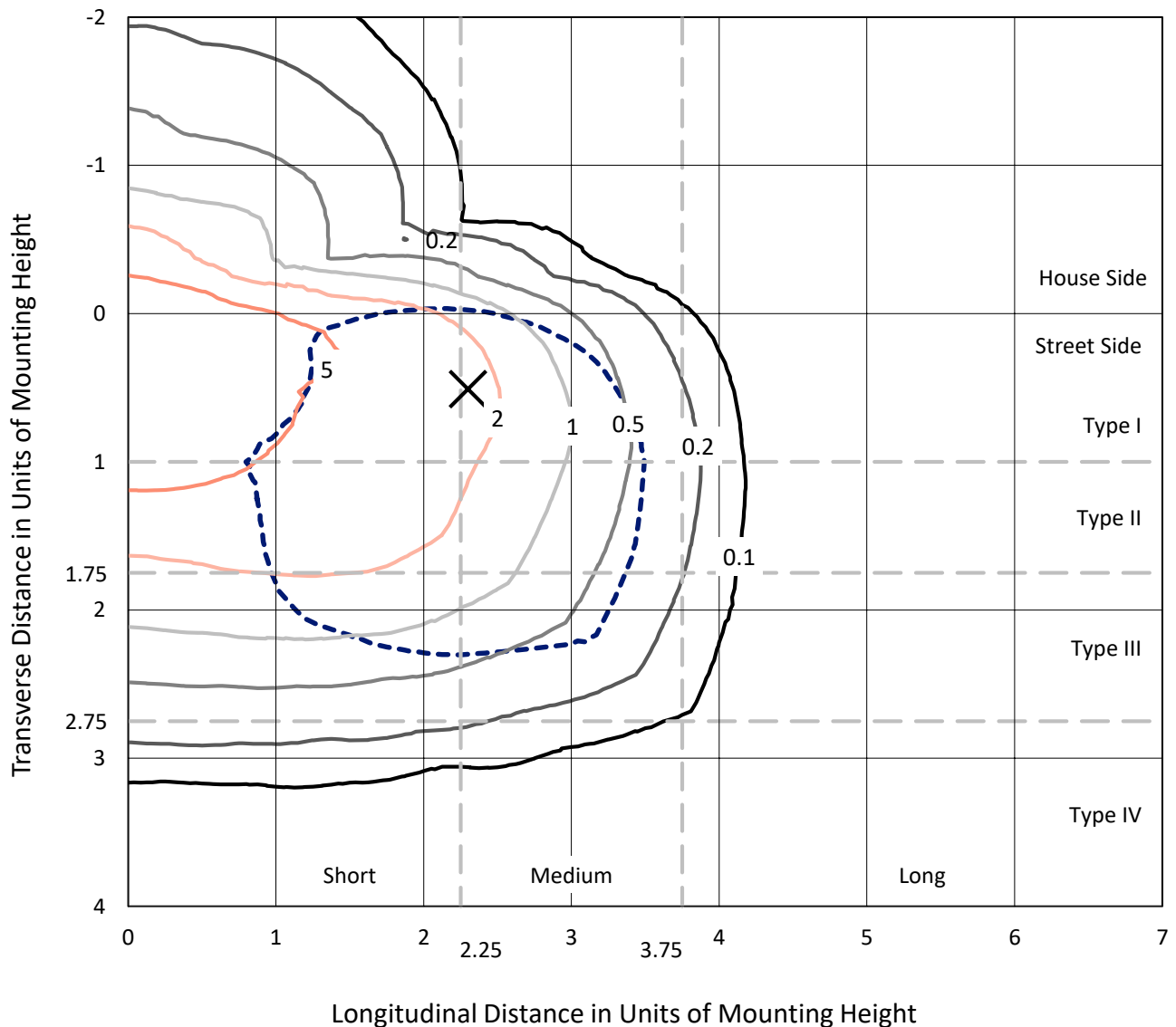
Input Watts (W): 67  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

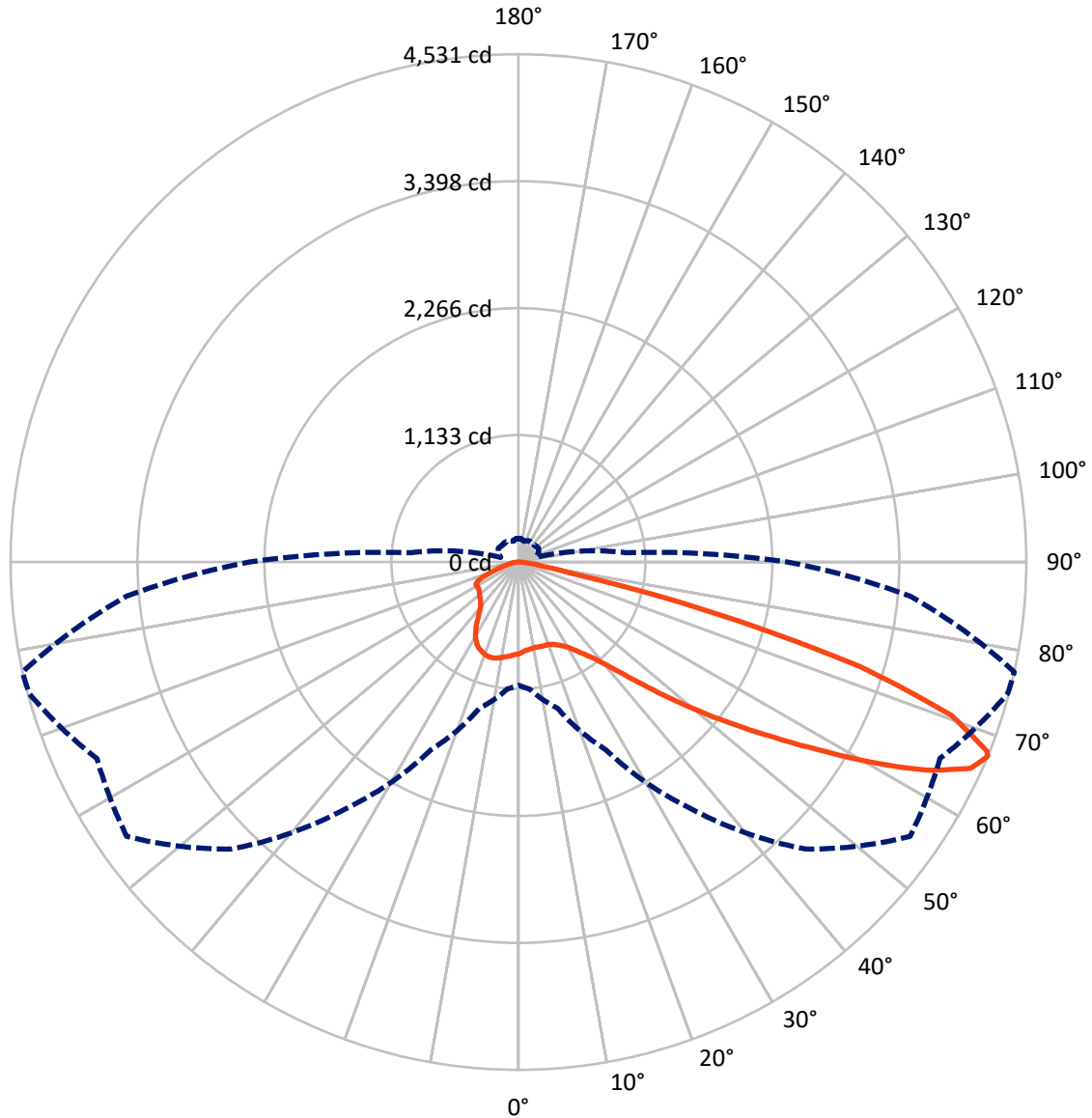
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9.8 fc  
 Type III - Medium - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 77.5-Deg Lateral    - - - Horizontal Cone Through 67-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	956.0	0.0	956.0
	% Fixture	17.2	0.0	17.2
<b>Street Side</b>	Lumens	4607.0	0.0	4607.0
	% Fixture	82.8	0.0	82.8
<b>Total</b>	Lumens	5563.0	0.0	5563.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	72.9	1.3
10°-20°	201.9	3.6
20°-30°	343.1	6.2
30°-40°	548.9	9.9
40°-50°	845.0	15.2
50°-60°	1172.4	21.1
60°-70°	1563.9	28.1
70°-80°	744.3	13.4
80°-90°	70.5	1.3
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°	5563.0	100.0
0°-180°	5563.0	100.0



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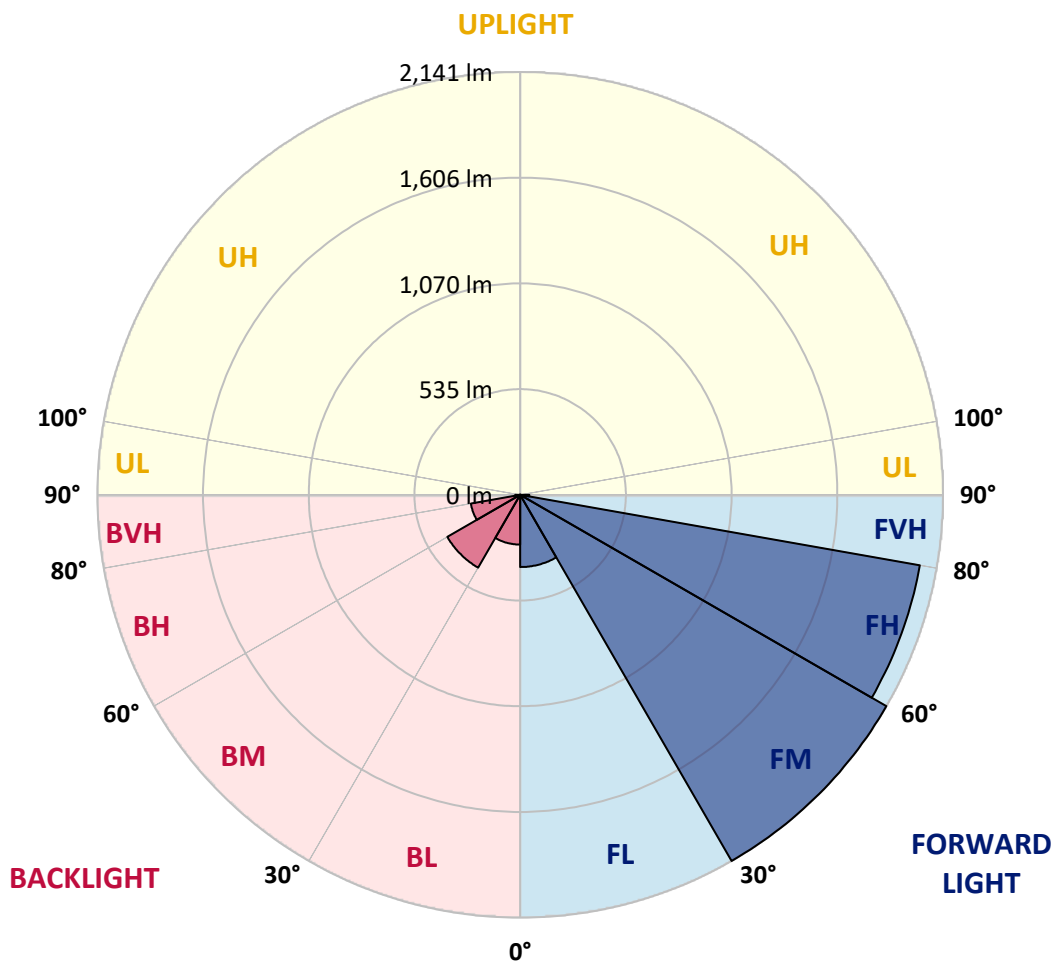
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	365.8	6.6			
FM	(30°-60°)	2140.7	38.5			
FH	(60°-80°)	2054.7	36.9			G2/5000
FVH	(80°-90°)	45.8	0.8			G1/100
BL	(0°-30°)	252.2	4.5	B1/500		
BM	(30°-60°)	425.7	7.7	B1/1000		
BH	(60°-80°)	253.5	4.6	B1/500		G1/500
BVH	(80°-90°)	24.7	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77.5°	85°
0°	818.7	818.7	818.7	818.7	818.7	818.7	818.7	818.7	818.7	818.7	818.7
2.5°	734.1	737.6	737.9	747.9	752.4	763.7	776.1	787.1	796.7	800.2	806.3
5°	660.6	660.6	661.6	668.1	680.8	699.1	724.9	753.1	782.6	789.8	808.1
7.5°	622.0	622.7	623.4	629.9	639.9	656.1	681.9	720.4	769.6	781.6	813.6
10°	625.5	624.4	621.0	619.6	623.8	634.1	656.4	696.0	758.6	777.1	823.5
12.5°	679.5	677.4	666.1	649.5	634.4	630.6	646.1	683.6	753.4	777.1	840.4
15°	772.0	773.3	751.0	716.6	677.1	650.2	648.2	679.1	751.7	779.2	860.0
17.5°	892.3	893.0	862.1	812.2	746.5	691.2	662.3	679.1	751.7	781.2	878.9
20°	1020.2	1015.4	980.3	917.8	832.5	747.9	688.1	683.2	753.7	784.3	896.8
22.5°	1129.9	1125.4	1088.7	1023.0	925.3	814.9	722.8	697.0	765.1	797.1	921.9
25°	1225.9	1228.6	1192.8	1118.9	1017.8	890.6	774.7	728.6	788.8	820.1	952.8
27.5°	1342.4	1337.3	1296.0	1225.5	1113.1	969.0	839.7	768.5	817.0	848.0	990.7
30°	1477.2	1474.8	1419.1	1346.6	1217.9	1056.7	904.0	811.5	853.8	886.1	1038.1
32.5°	1640.9	1640.5	1580.7	1491.7	1335.9	1155.7	980.0	870.3	907.4	940.1	1101.0
35°	1826.2	1825.9	1764.0	1646.4	1471.7	1265.4	1069.4	941.8	973.8	1008.2	1176.0
37.5°	1954.8	1952.8	1920.5	1806.3	1622.0	1393.0	1181.2	1038.1	1049.1	1087.6	1266.4
40°	1979.6	1992.0	2019.8	1952.4	1786.0	1534.6	1293.3	1141.6	1151.9	1201.4	1380.2
42.5°	1952.8	1968.9	2061.4	2080.3	1950.0	1706.2	1433.5	1285.0	1298.1	1359.6	1514.0
45°	1929.4	1943.5	2059.4	2151.2	2112.0	1893.3	1608.6	1460.0	1484.8	1561.1	1666.7
47.5°	1889.5	1902.6	2018.8	2163.9	2204.5	2073.5	1819.4	1670.5	1713.1	1805.6	1840.7
50°	1887.4	1893.3	1963.4	2121.3	2236.5	2210.3	2052.8	1916.7	1982.0	2088.6	2033.2
52.5°	1835.2	1876.1	1939.7	2053.2	2237.1	2290.1	2282.9	2186.6	2287.3	2405.3	2244.4
55°	1515.4	1562.5	1860.6	2019.8	2233.0	2358.5	2493.0	2473.7	2631.2	2755.3	2480.9
57.5°	1415.0	1434.9	1632.3	2029.8	2267.4	2471.7	2703.1	2782.2	3024.6	3160.1	2764.6
60°	1387.5	1408.4	1586.6	2034.6	2360.6	2677.6	2988.1	3130.5	3487.1	3630.8	3086.8
62.5°	1356.9	1384.0	1590.0	2039.1	2524.3	2982.3	3366.4	3508.4	3961.9	4090.2	3388.7
65°	1267.5	1303.6	1526.4	2010.9	2703.4	3364.7	3866.3	3902.5	4354.3	4435.8	3571.0
67°	1097.9	1137.5	1351.7	1847.9	2686.9	3622.2	4266.3	4149.0	4521.1	4531.0	3511.8
67.5°	1044.3	1085.2	1292.6	1780.2	2639.8	3655.9	4337.1	4183.0	4519.7	4508.7	3456.8
70°	703.2	749.3	915.4	1307.0	2117.5	3402.5	4319.9	4078.2	4223.3	4097.1	2969.9
72.5°	349.0	350.4	456.6	715.9	1282.9	2440.4	3603.6	3488.8	3423.5	3185.2	2179.4
75°	168.1	171.2	215.6	316.3	540.9	1259.9	2457.6	2354.1	2004.4	1735.5	1090.7
77.5°	128.3	131.4	167.5	206.0	225.6	410.9	1217.3	983.8	580.8	463.9	307.4
80°	99.0	104.9	141.3	158.2	149.2	164.7	382.7	301.2	225.9	207.3	152.3
82.5°	77.4	80.8	120.0	120.0	103.2	110.4	178.1	174.0	140.3	126.5	81.8
85°	54.7	61.6	96.6	89.4	67.7	68.4	106.6	102.1	72.2	58.1	32.0
87.5°	24.4	31.3	68.8	58.5	36.1	27.9	43.7	37.5	28.5	22.0	14.8
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°	818.7	818.7	818.7	818.7	818.7	818.7	818.7	818.7	818.7	818.7	818.7
2.5°	813.2	818.7	827.3	832.5	839.4	842.1	844.9	849.7	853.5	852.4	850.7
5°	820.8	830.1	840.7	844.2	844.2	840.7	838.7	839.0	838.0	837.3	835.2
7.5°	831.8	844.5	852.1	848.6	838.0	824.6	811.9	804.3	797.1	792.6	794.0
10°	847.3	861.4	861.7	846.6	821.1	791.9	766.8	750.6	735.2	728.3	730.4
12.5°	869.6	883.7	871.7	839.0	794.3	748.6	702.5	669.1	639.2	632.0	629.9
15°	893.7	904.7	877.9	822.9	755.8	680.5	603.1	553.3	519.9	514.1	512.0
17.5°	914.7	920.9	874.8	794.0	694.9	576.3	486.2	452.5	445.6	449.1	449.1
20°	933.2	931.2	861.4	749.3	599.0	460.8	408.5	408.2	417.4	426.0	426.7
22.5°	956.6	940.5	840.0	682.9	484.5	384.4	375.5	384.4	394.7	404.4	405.4
25°	984.5	950.8	811.5	588.3	389.6	349.0	352.8	360.4	366.9	374.5	374.8
27.5°	1012.3	958.7	771.3	477.3	338.0	326.3	330.4	333.5	335.3	340.1	340.1
30°	1044.6	964.9	713.2	382.4	314.3	306.4	304.0	302.6	304.0	310.5	310.8
32.5°	1085.2	975.9	633.7	328.0	303.3	292.3	279.9	273.0	277.8	289.5	291.6
35°	1131.3	988.9	538.5	306.4	299.5	285.4	262.7	252.0	253.8	264.4	266.1
37.5°	1189.1	1005.8	444.6	301.2	303.3	284.7	254.8	239.7	232.1	232.4	232.1
40°	1263.0	1022.6	370.3	302.6	311.5	286.4	251.0	227.3	211.5	212.2	213.5
42.5°	1340.4	1033.6	323.2	306.7	321.5	288.8	249.6	215.3	201.5	213.2	223.9
45°	1430.8	1030.5	298.8	310.5	329.1	289.9	244.5	213.9	202.5	237.6	257.6
47.5°	1534.6	1017.1	285.1	312.2	331.1	289.5	240.7	218.4	211.1	272.0	294.7
50°	1647.4	996.2	274.1	309.5	330.1	288.2	244.8	223.9	214.6	279.6	297.1
52.5°	1770.9	976.9	262.7	303.3	324.9	284.0	250.0	221.4	204.9	257.6	271.0
55°	1917.0	972.4	250.0	292.6	316.3	279.6	247.2	213.9	194.3	228.3	236.6
57.5°	2084.1	1000.3	233.5	279.6	304.7	270.6	240.7	209.8	190.5	207.7	212.2
60°	2296.3	1061.8	215.9	265.8	290.2	257.2	234.9	210.8	191.5	204.6	205.6
62.5°	2462.0	1117.2	200.1	249.0	271.0	241.0	228.7	211.8	194.6	208.7	207.0
65°	2522.2	1090.0	180.5	223.9	243.8	223.2	220.1	212.5	194.6	211.1	207.3
67°	2398.8	960.4	162.0	198.8	218.0	207.3	211.8	209.8	191.2	210.8	204.3
67.5°	2340.0	914.7	157.1	194.6	211.1	202.5	209.8	208.4	190.2	210.1	202.5
70°	1929.7	656.1	132.7	163.3	176.7	178.5	197.0	199.4	181.9	197.4	183.6
72.5°	1373.0	410.6	114.5	126.5	142.7	152.7	179.8	187.4	170.9	171.6	160.2
75°	679.5	220.4	102.1	97.7	111.1	127.2	156.8	170.9	154.7	143.0	139.3
77.5°	229.4	124.8	86.3	78.7	86.3	102.1	130.0	149.2	136.5	121.0	118.6
80°	118.6	90.8	67.4	63.3	68.1	79.1	101.8	124.1	116.6	117.3	96.6
82.5°	73.9	55.4	48.5	48.1	51.6	60.5	75.0	100.8	100.1	85.6	62.2
85°	34.4	32.0	30.9	32.0	33.0	34.4	48.8	71.9	76.0	46.1	40.9
87.5°	14.4	14.1	12.4	13.4	14.8	14.4	19.6	30.6	42.6	28.9	26.5
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)