

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: P270306

Luminaire Tested: **NAV-AF-01-D-UNV-T3-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270306
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (p24135)
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-T3-7027-600
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2700K, 615mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3498 lumens
Efficiency: N/A
Efficacy: 102.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G1

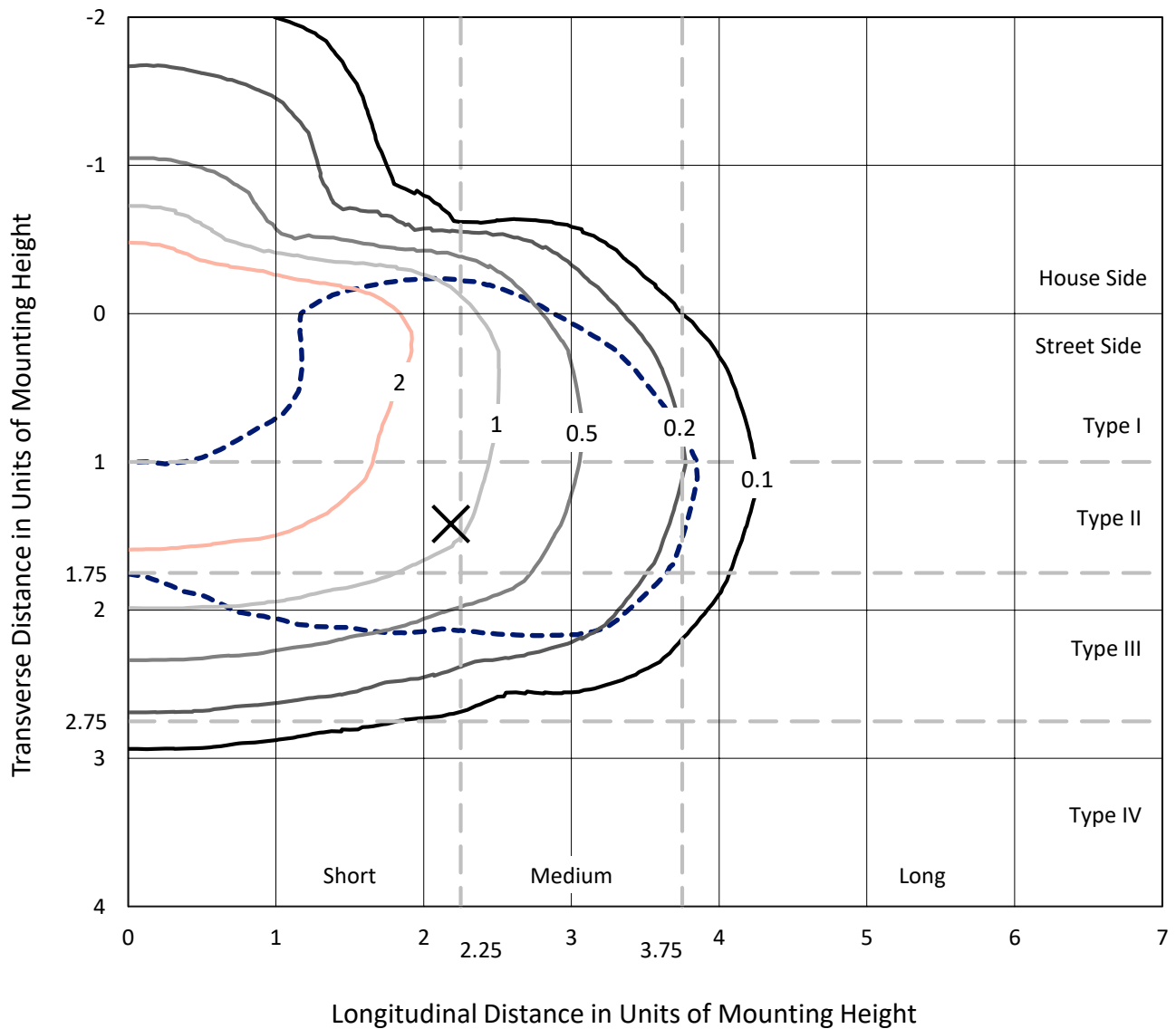
Input Watts (W): 34
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

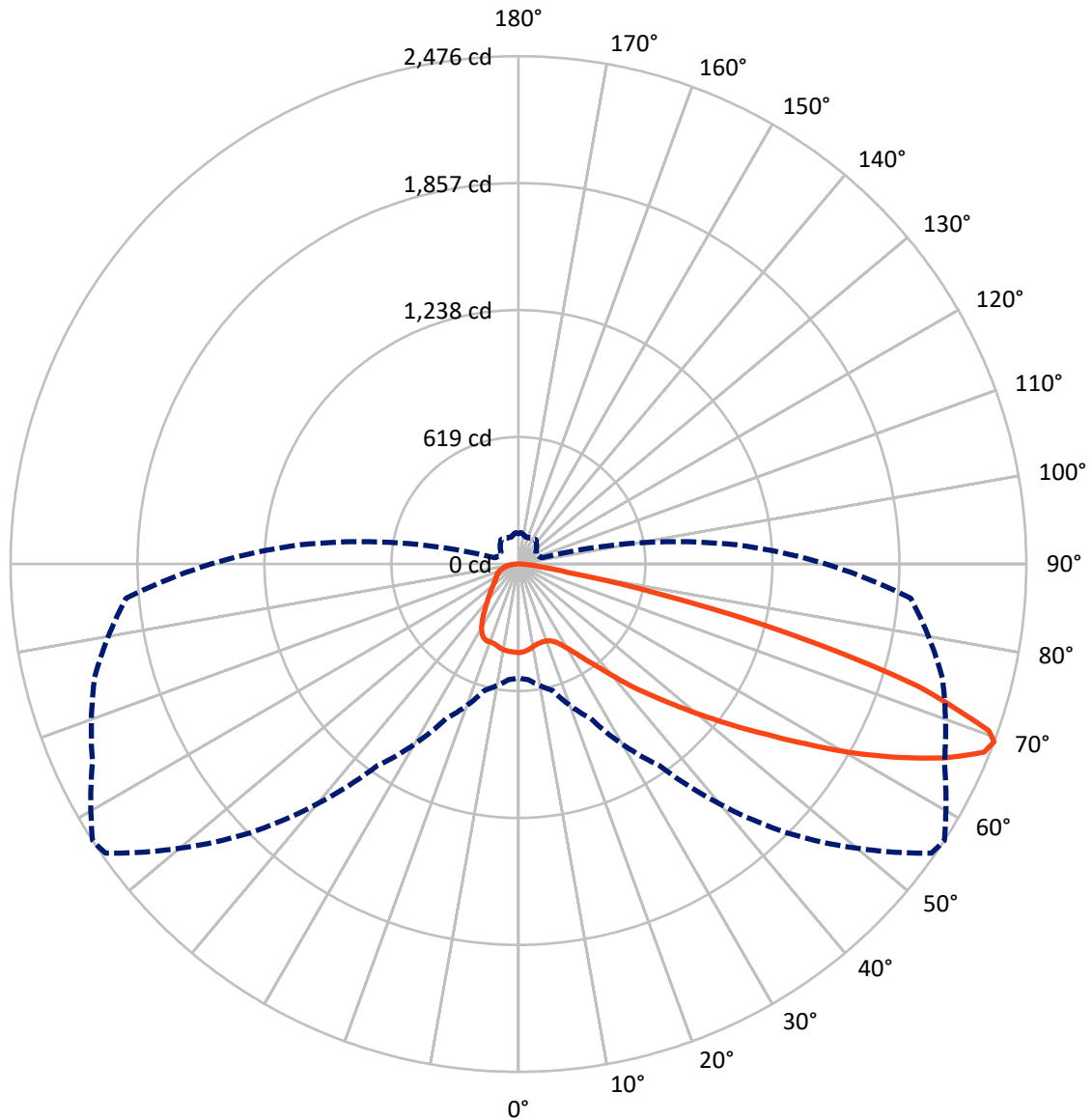
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.4 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	771.9	0.0	771.9
	% Fixture	22.1	0.0	22.1
Street Side	Lumens	2726.1	0.0	2726.1
	% Fixture	77.9	0.0	77.9
Total	Lumens	3498.0	0.0	3498.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.5	1.2
10°-20°	115.1	3.3
20°-30°	191.4	5.5
30°-40°	312.5	8.9
40°-50°	527.5	15.1
50°-60°	820.5	23.5
60°-70°	977.4	27.9
70°-80°	455.3	13.0
80°-90°	57.9	1.7
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°	3498.0	100.0
0°-180°	3498.0	100.0



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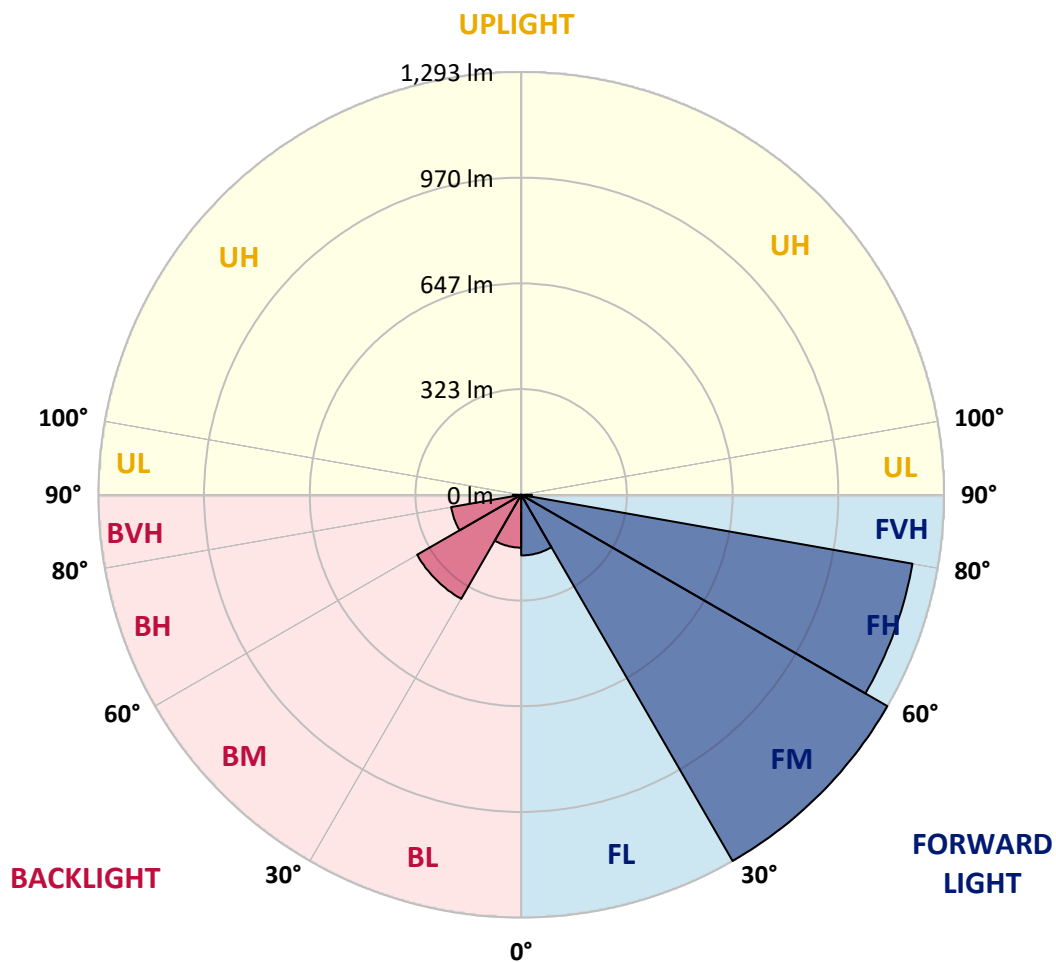
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	185.2	5.3			
FM	(30°-60°)	1293.1	37.0			
FH	(60°-80°)	1215.2	34.7			G1/1800
FVH	(80°-90°)	32.5	0.9			G1/100
BL	(0°-30°)	161.7	4.6	B1/500		
BM	(30°-60°)	367.4	10.5	B1/1000		
BH	(60°-80°)	217.5	6.2	B1/500		G1/500
BVH	(80°-90°)	25.4	0.7			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	432.3	432.3	432.3	432.3	432.3	432.3	432.3	432.3	432.3	432.3	432.3
2.5°	429.7	429.7	430.8	430.8	430.8	430.4	429.1	429.5	428.6	428.0	426.9
5°	421.0	421.5	422.8	423.2	423.9	424.2	424.2	423.9	424.2	424.2	423.6
7.5°	408.9	409.4	411.0	411.9	413.8	415.6	416.5	416.5	417.6	418.5	418.8
10°	401.5	401.5	402.4	402.4	404.0	404.9	407.8	407.7	410.7	413.6	414.9
12.5°	400.6	400.6	400.1	398.6	397.7	397.5	400.5	400.9	405.6	410.7	413.2
15°	403.6	403.6	402.3	399.0	395.8	394.1	397.1	397.9	403.1	409.2	413.0
17.5°	413.0	412.7	409.8	403.6	397.7	395.3	396.2	397.1	401.7	408.6	413.4
20°	433.8	433.8	427.6	416.1	406.0	400.1	398.8	399.6	402.9	409.4	415.5
22.5°	470.4	470.9	459.8	441.0	423.7	411.3	406.0	406.8	408.3	414.5	421.2
25°	524.0	522.3	506.4	479.6	452.8	431.7	420.8	421.5	421.5	427.2	434.2
27.5°	580.9	581.4	558.6	529.8	494.4	463.2	445.6	445.4	445.2	450.8	458.1
30°	645.3	645.4	619.0	585.9	545.4	505.2	479.1	478.7	476.8	483.6	493.3
32.5°	715.5	715.3	684.6	647.1	602.1	556.7	522.6	522.5	520.8	530.3	541.9
35°	793.5	793.5	763.0	716.8	668.2	617.7	578.1	578.0	578.9	591.7	602.7
37.5°	887.3	889.3	852.5	796.5	743.4	689.4	643.6	642.3	635.6	657.0	675.2
40°	985.1	990.7	952.7	887.3	829.9	774.2	723.6	722.6	716.8	739.7	768.9
42.5°	1091.0	1103.7	1061.4	994.8	932.4	872.1	821.2	818.7	796.3	831.9	877.9
45°	1229.9	1238.1	1176.8	1116.4	1057.5	988.8	928.3	915.1	892.6	938.3	997.8
47.5°	1324.5	1320.4	1282.2	1241.5	1203.6	1137.9	1044.9	1028.1	1000.8	1061.3	1126.8
50°	1383.1	1385.9	1364.4	1362.5	1360.5	1314.6	1176.6	1156.5	1124.9	1196.5	1273.1
52.5°	1421.7	1408.6	1412.5	1458.0	1513.5	1491.5	1325.4	1303.1	1270.7	1342.2	1428.8
55°	1405.7	1388.2	1423.4	1513.5	1643.4	1648.5	1489.0	1465.9	1438.1	1497.2	1616.1
57.5°	1339.0	1347.6	1403.2	1528.5	1732.4	1789.1	1676.9	1653.4	1598.8	1658.8	1793.7
60°	1245.1	1262.7	1347.6	1504.8	1794.6	1898.6	1883.1	1867.4	1773.4	1816.0	1980.6
62.5°	1144.4	1161.8	1266.3	1464.1	1766.6	1995.6	2085.5	2076.0	1966.2	1967.4	2099.0
65°	995.4	1002.6	1109.1	1353.6	1689.1	2083.1	2288.3	2279.8	2150.5	2096.6	2132.1
67.5°	751.8	760.8	848.3	1068.4	1452.5	2035.6	2450.1	2448.8	2261.5	2144.6	2053.3
69°	555.2	566.1	637.5	829.5	1201.0	1854.7	2457.9	2475.9	2291.3	2139.6	1920.0
70°	406.3	418.8	484.8	658.4	1000.4	1654.9	2392.6	2431.6	2280.0	2108.4	1816.3
72.5°	172.7	177.0	209.3	297.2	507.5	997.8	1959.7	2041.7	2059.2	1889.1	1419.0
75°	108.2	109.6	122.3	152.5	225.7	412.7	1269.0	1380.9	1537.4	1465.8	950.0
77.5°	81.6	82.6	90.0	105.0	140.1	154.1	588.7	702.0	880.6	862.3	472.8
80°	62.5	63.2	68.1	76.4	98.8	96.5	191.0	240.0	367.4	324.3	167.3
82.5°	49.0	49.2	53.4	55.1	69.0	64.9	95.8	106.8	148.5	123.3	81.7
85°	43.5	44.0	48.4	40.3	44.0	39.2	52.6	57.1	78.8	74.4	30.9
87.5°	22.2	23.3	40.6	34.5	22.2	18.5	23.0	24.9	32.0	34.8	15.0
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°	432.3	432.3	432.3	432.3	432.3	432.3	432.3	432.3	432.3	432.3	432.3
2.5°	427.1	427.2	428.0	429.1	430.8	433.2	435.8	438.6	440.1	441.2	440.7
5°	423.6	423.7	425.1	427.1	429.3	432.7	437.1	440.4	443.0	444.5	444.3
7.5°	419.0	419.7	422.4	424.5	427.8	430.4	434.1	437.1	439.6	441.2	441.0
10°	415.6	416.4	419.7	422.7	425.3	425.7	425.1	424.2	423.9	425.1	424.5
12.5°	414.1	415.5	418.5	420.5	419.5	415.1	410.3	408.3	407.7	409.8	410.0
15°	414.5	415.6	418.3	417.1	411.0	403.8	401.2	402.6	404.0	405.3	405.6
17.5°	415.6	416.4	417.1	412.1	403.6	398.8	397.9	396.4	392.4	390.1	389.9
20°	417.6	418.5	417.4	409.5	402.0	395.8	385.0	375.3	366.1	361.2	359.2
22.5°	424.5	425.3	421.9	414.3	402.6	382.3	360.6	344.1	329.9	322.2	319.3
25°	438.3	439.5	434.7	425.1	394.5	359.1	328.3	306.0	288.3	279.1	276.6
27.5°	462.2	463.3	458.1	433.2	375.9	327.8	290.7	268.6	253.3	245.4	244.2
30°	498.0	499.5	495.0	433.0	347.1	288.3	254.0	240.9	232.2	226.8	226.6
32.5°	547.7	553.5	534.3	425.3	311.7	248.1	226.3	221.7	217.5	213.8	213.8
35°	610.8	624.6	573.3	409.4	272.7	220.9	210.7	206.5	201.1	197.3	196.9
37.5°	686.3	707.7	601.1	381.2	239.2	207.6	201.3	194.5	185.9	178.6	176.6
40°	790.1	795.0	614.7	335.2	214.1	200.4	192.5	183.9	173.2	164.7	163.9
42.5°	894.3	878.2	612.0	286.0	199.8	193.9	183.7	174.0	164.4	157.5	157.5
45°	1012.7	950.6	591.7	236.4	186.8	186.6	175.3	166.1	158.8	153.6	152.5
47.5°	1125.9	1015.9	556.5	200.1	173.4	179.1	170.0	162.7	155.9	150.9	150.0
50°	1263.5	1091.4	519.1	174.5	160.3	172.7	167.8	163.9	157.5	148.8	148.0
52.5°	1400.1	1179.6	490.3	155.1	148.8	167.5	169.2	169.5	163.5	147.0	145.7
55°	1546.8	1273.7	459.8	140.1	139.4	165.1	172.2	171.8	168.8	147.3	145.5
57.5°	1686.3	1368.5	414.3	129.6	132.1	162.7	172.8	165.6	160.5	149.6	146.8
60°	1801.9	1446.9	347.6	122.3	125.9	157.7	168.4	157.7	148.8	149.2	146.5
62.5°	1858.1	1468.9	265.8	113.7	120.7	149.6	162.0	151.6	143.5	150.0	148.5
65°	1815.2	1406.3	189.5	105.9	114.4	140.1	158.1	146.5	140.9	154.5	152.7
67.5°	1661.7	1236.2	137.5	99.1	108.3	130.6	150.9	141.8	138.2	157.9	153.9
69°	1498.5	1067.4	119.1	95.0	104.2	125.5	146.2	139.2	136.2	153.3	147.3
70°	1362.6	937.2	110.0	92.4	100.5	122.4	142.7	137.7	134.1	147.6	140.7
72.5°	977.0	605.7	92.4	85.1	91.2	116.1	134.8	132.0	126.5	133.3	128.7
75°	590.4	316.3	78.6	77.4	81.2	107.1	125.7	122.1	116.7	117.4	115.2
77.5°	271.2	146.1	65.8	68.5	71.0	95.8	114.4	110.4	105.6	103.7	103.9
80°	118.9	85.2	55.1	58.5	59.7	86.1	102.3	97.8	92.4	102.0	94.7
82.5°	64.3	49.4	42.9	45.3	49.0	75.0	88.9	83.2	78.0	90.6	73.2
85°	26.1	25.3	29.1	31.4	34.0	54.0	74.4	68.4	62.1	55.5	54.2
87.5°	11.1	12.0	14.4	15.2	18.1	33.5	49.9	43.7	43.8	37.5	36.9
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)