

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: P196795

Luminaire Tested: **NAV-AF-01-D-UNV-T3-7030-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196795
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-T3-7030-1200
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 1200mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6483.4 lumens
Efficiency: N/A
Efficacy: 96.8 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 - G2

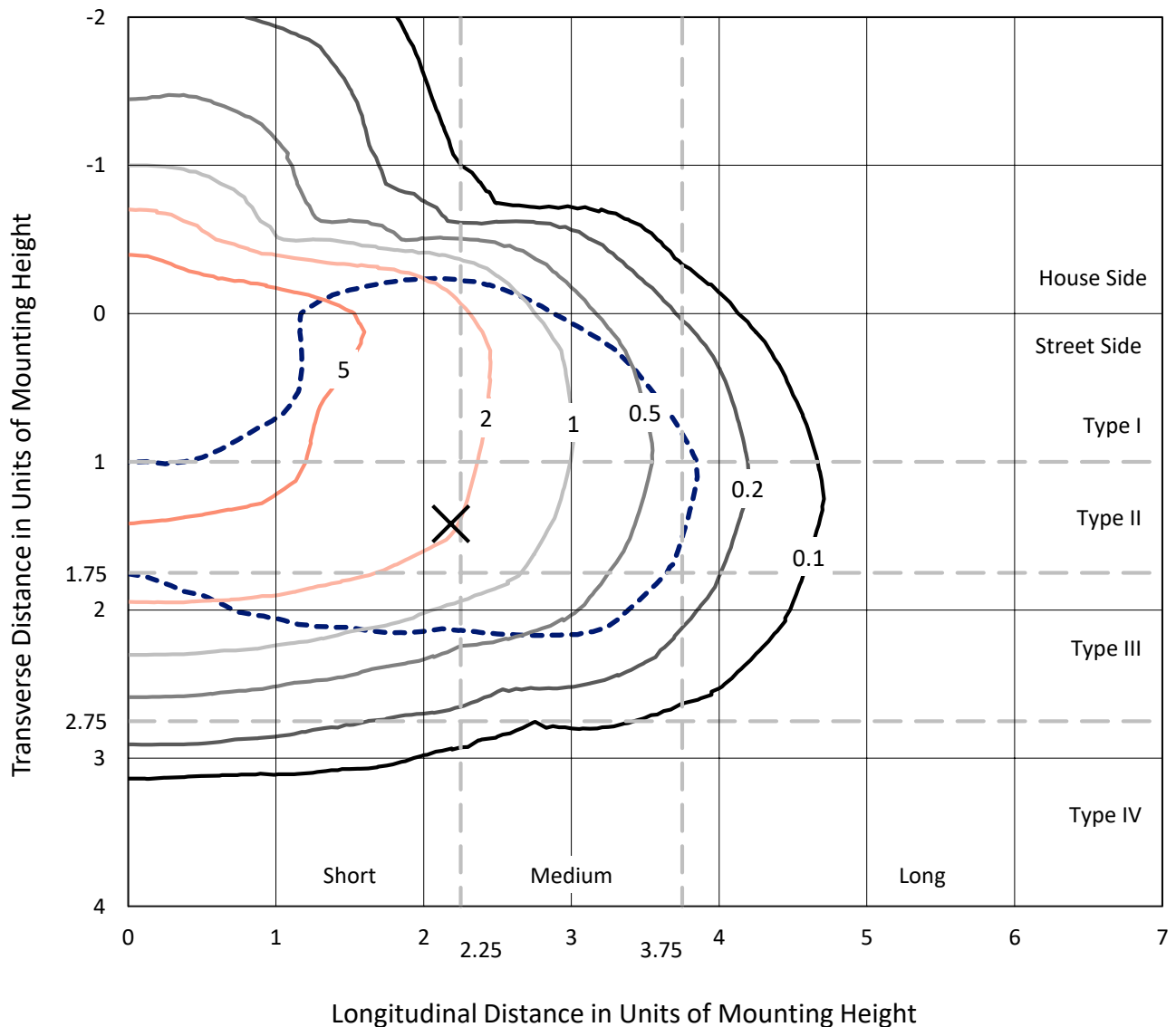
Input Watts (W): 67
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

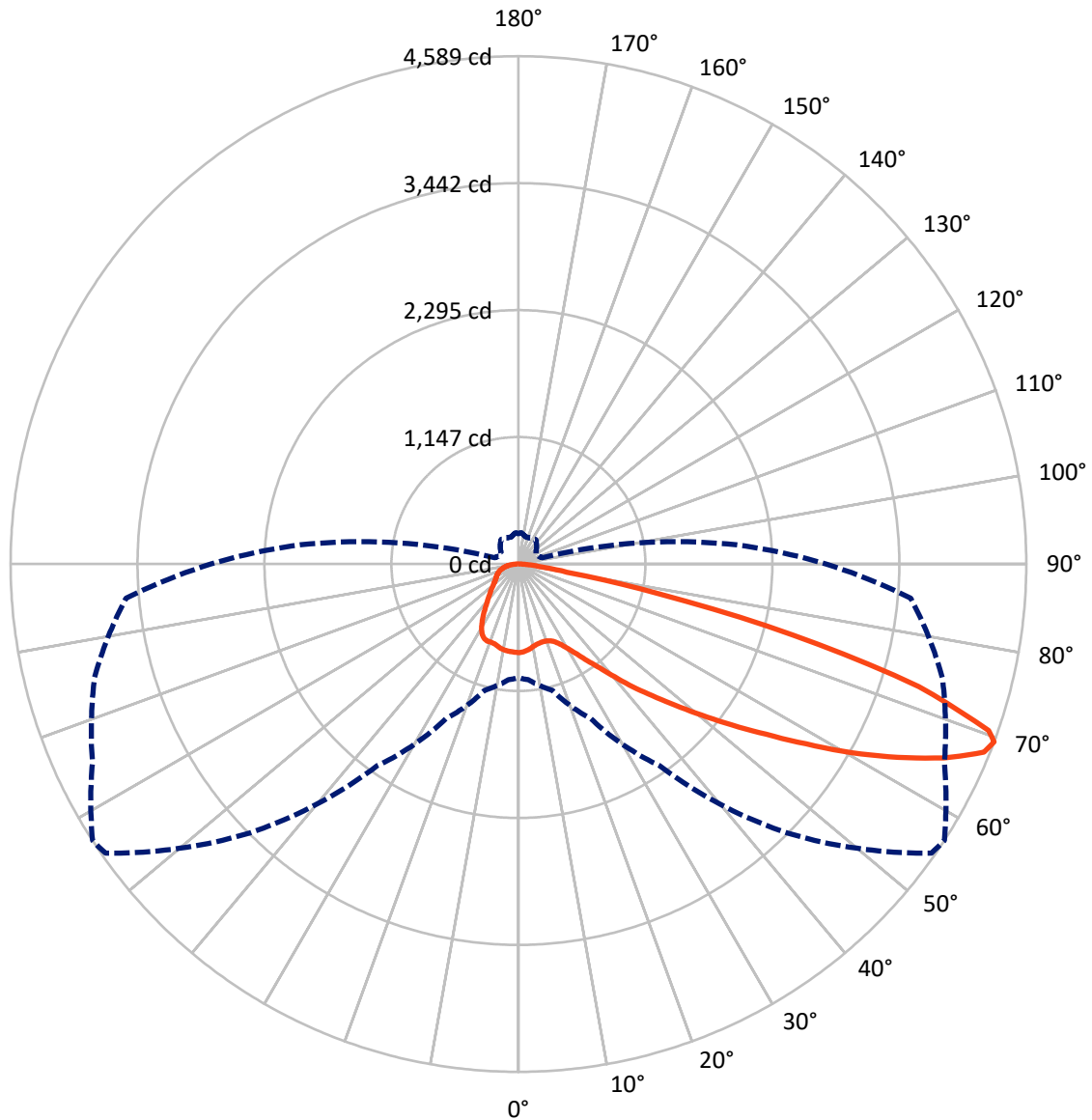
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.2 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	1430.7	0.0	1430.7
	% Fixture	22.1	0.0	22.1
Street Side	Lumens	5052.8	0.0	5052.8
	% Fixture	77.9	0.0	77.9
Total	Lumens	6483.4	0.0	6483.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.0	1.2
10°-20°	213.2	3.3
20°-30°	354.7	5.5
30°-40°	579.2	8.9
40°-50°	977.6	15.1
50°-60°	1520.8	23.5
60°-70°	1811.6	27.9
70°-80°	843.9	13.0
80°-90°	107.3	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°	6483.4	100.0
0°-180°	6483.4	100.0



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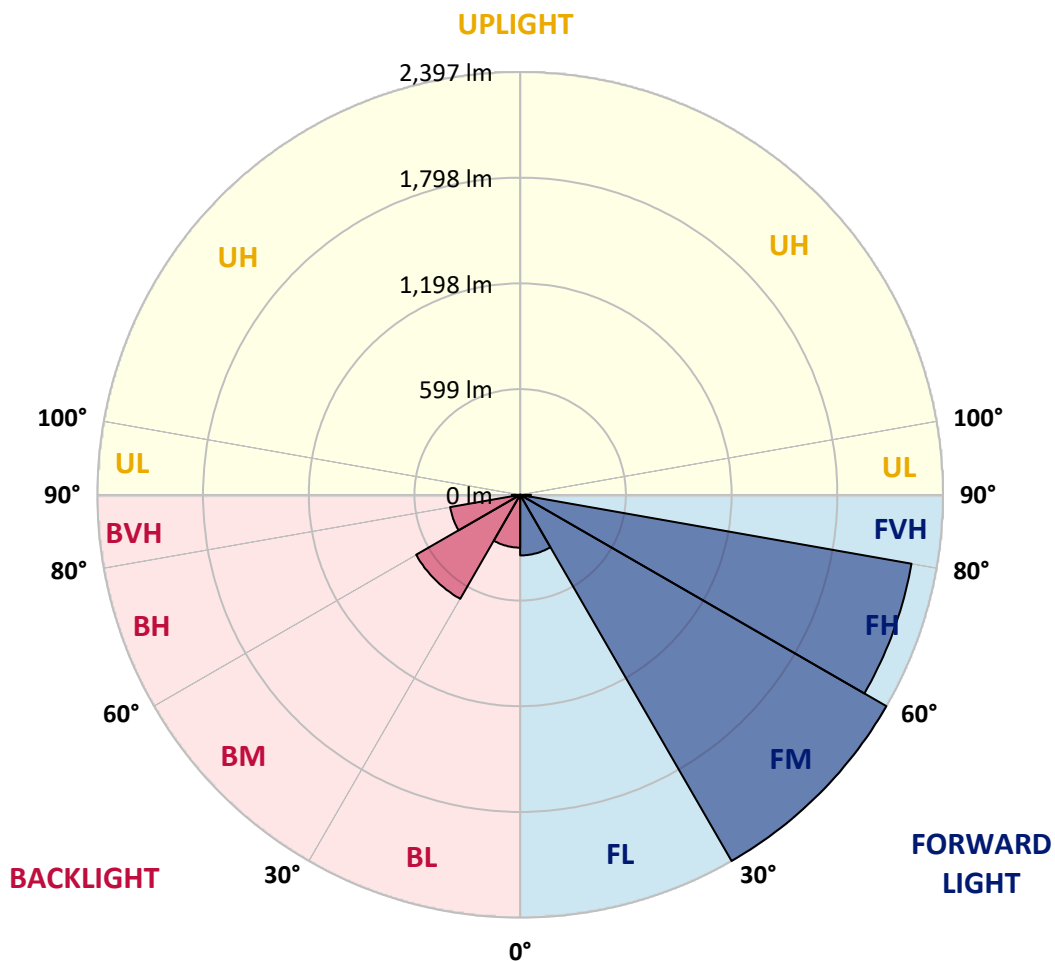
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	343.3	5.3			
FM	(30°-60°)	2396.7	37.0			
FH	(60°-80°)	2252.4	34.7			G2/5000
FVH	(80°-90°)	60.3	0.9			G1/100
BL	(0°-30°)	299.6	4.6	B1/500		
BM	(30°-60°)	680.9	10.5	B1/1000		
BH	(60°-80°)	403.1	6.2	B1/500		G1/500
BVH	(80°-90°)	47.0	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-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	801.1	801.1	801.1	801.1	801.1	801.1	801.1	801.1	801.1	801.1	801.1
2.5°	796.5	796.5	798.5	798.5	798.5	797.8	795.3	796.1	794.5	793.2	791.1
5°	780.3	781.2	783.6	784.5	785.7	786.1	786.1	785.7	786.1	786.1	784.9
7.5°	757.9	758.8	761.6	763.2	767.1	770.4	772.0	772.0	774.1	775.7	776.2
10°	744.3	744.3	745.9	745.9	748.8	750.5	755.8	755.4	761.2	766.7	769.1
12.5°	742.5	742.5	741.8	738.8	737.2	736.7	742.2	743.0	751.7	761.2	765.8
15°	748.0	748.0	745.4	739.6	733.4	730.5	736.0	737.6	747.2	758.4	765.4
17.5°	765.4	765.1	759.6	748.0	737.2	732.6	734.2	736.0	744.6	757.5	766.2
20°	804.0	804.0	792.3	771.3	752.6	741.8	739.2	740.4	746.7	758.8	769.9
22.5°	871.7	872.9	852.1	817.3	785.3	762.5	752.6	753.8	756.7	768.3	780.7
25°	971.4	967.9	938.4	889.1	839.3	800.3	779.9	781.2	781.2	791.9	804.8
27.5°	1076.8	1077.6	1035.2	982.0	916.4	858.3	826.0	825.6	825.1	835.5	849.3
30°	1195.9	1196.3	1147.2	1085.8	1010.7	936.5	887.8	887.4	883.7	896.6	914.4
32.5°	1326.2	1325.8	1268.8	1199.5	1116.1	1031.9	968.8	968.4	965.5	982.9	1004.5
35°	1470.6	1470.6	1414.2	1328.7	1238.6	1144.8	1071.8	1071.3	1072.9	1096.6	1116.9
37.5°	1644.6	1648.2	1580.2	1476.4	1378.1	1278.0	1192.9	1190.4	1178.1	1217.8	1251.4
40°	1825.9	1836.3	1765.7	1644.6	1538.3	1434.9	1341.1	1339.4	1328.7	1370.9	1425.4
42.5°	2022.3	2045.9	1967.4	1843.7	1727.9	1616.3	1522.1	1517.5	1476.0	1541.9	1627.1
45°	2279.5	2295.0	2181.3	2069.2	1960.0	1832.6	1720.5	1696.0	1654.5	1739.2	1849.5
47.5°	2454.7	2447.3	2376.3	2301.2	2231.1	2109.0	1936.7	1905.6	1855.0	1967.0	2088.6
50°	2563.5	2568.9	2529.1	2525.3	2521.6	2436.5	2180.9	2143.4	2084.8	2217.8	2359.7
52.5°	2635.4	2610.9	2617.9	2702.5	2805.1	2764.4	2456.8	2415.2	2355.1	2488.0	2648.2
55°	2605.4	2573.0	2638.2	2805.1	3046.2	3055.3	2759.8	2717.1	2665.6	2775.1	2995.2
57.5°	2481.8	2497.8	2600.8	2832.9	3211.0	3316.0	3108.1	3064.5	2963.2	3074.4	3324.8
60°	2307.8	2340.6	2497.8	2788.9	3326.4	3519.0	3490.4	3461.4	3286.9	3365.8	3670.9
62.5°	2121.0	2153.4	2346.8	2713.8	3274.5	3698.8	3865.6	3847.8	3644.4	3646.4	3890.5
65°	1845.0	1858.3	2055.8	2508.7	3130.5	3861.0	4241.2	4225.5	3986.0	3886.0	3951.9
67.5°	1393.4	1410.0	1572.4	1980.4	2692.1	3773.0	4541.4	4538.8	4191.4	3974.8	3805.8
69°	1029.0	1049.3	1181.7	1537.4	2226.0	3437.7	4555.4	4589.1	4247.0	3965.6	3558.8
70°	752.9	776.2	898.6	1220.3	1854.1	3067.4	4434.7	4506.8	4225.8	3907.8	3366.3
72.5°	320.0	327.9	388.1	550.7	940.5	1849.5	3632.4	3784.2	3816.7	3501.5	2629.9
75°	200.5	203.0	226.6	282.7	418.4	765.1	2352.3	2559.4	2849.5	2716.6	1760.7
77.5°	151.1	153.2	166.8	194.7	259.8	285.6	1091.3	1301.3	1632.2	1598.0	876.3
80°	115.9	117.0	126.2	141.5	183.0	178.8	354.1	445.0	681.1	601.0	310.1
82.5°	90.9	91.3	99.2	102.1	127.9	120.4	177.6	198.0	275.3	228.7	151.6
85°	80.6	81.7	89.7	74.8	81.7	72.6	97.6	105.9	146.1	137.7	57.3
87.5°	41.1	43.1	75.2	63.9	41.1	34.4	42.7	46.1	59.3	64.4	27.9
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°	801.1	801.1	801.1	801.1	801.1	801.1	801.1	801.1	801.1	801.1	801.1
2.5°	791.6	791.9	793.2	795.3	798.5	802.7	807.8	812.7	815.6	817.7	816.8
5°	784.9	785.3	787.8	791.6	795.7	802.0	810.2	816.5	821.0	824.0	823.5
7.5°	776.7	777.8	782.9	787.0	792.7	797.8	804.3	810.2	814.7	817.7	817.3
10°	770.4	771.6	777.8	783.3	788.2	789.1	787.8	786.1	785.7	787.8	787.0
12.5°	767.4	769.9	775.7	779.4	777.4	769.5	760.5	756.7	755.4	759.6	760.0
15°	768.3	770.4	775.3	772.9	761.6	748.4	743.4	746.4	748.8	751.2	751.7
17.5°	770.4	771.6	772.9	763.7	748.0	739.2	737.6	734.7	727.2	723.1	722.6
20°	774.1	775.7	773.7	759.2	745.0	733.4	713.5	695.7	678.6	669.5	665.8
22.5°	787.0	788.2	782.0	767.9	746.4	708.5	668.2	637.5	611.5	597.3	591.8
25°	812.4	814.4	805.7	787.8	731.4	665.4	608.5	566.9	534.2	517.3	512.7
27.5°	856.7	858.8	849.3	802.7	696.5	607.7	538.7	497.6	469.5	454.9	452.9
30°	923.1	926.1	917.3	802.3	643.3	534.2	470.7	446.7	430.5	420.4	420.1
32.5°	1015.2	1026.1	990.3	788.2	577.8	459.9	419.2	411.0	403.0	396.4	396.4
35°	1132.4	1157.6	1062.5	758.8	505.6	409.2	390.6	382.7	372.7	365.7	364.8
37.5°	1272.3	1311.6	1114.0	706.5	443.3	384.8	373.1	360.3	344.5	330.8	327.4
40°	1464.4	1473.5	1139.3	621.3	396.8	371.5	356.9	340.8	320.9	305.5	303.8
42.5°	1657.4	1627.5	1134.4	530.0	370.3	359.5	340.4	322.6	304.7	291.8	291.8
45°	1877.0	1762.1	1096.6	438.3	346.2	345.8	325.0	308.0	294.2	284.7	282.7
47.5°	2087.0	1882.7	1031.4	370.6	321.2	332.0	315.0	301.3	288.9	279.8	278.1
50°	2341.9	2022.6	962.1	323.3	297.1	320.0	310.9	303.8	291.8	276.0	274.3
52.5°	2595.0	2186.2	908.6	287.7	276.0	310.6	313.3	314.2	302.9	272.3	270.2
55°	2867.0	2361.0	852.1	259.8	258.6	305.9	319.1	318.4	312.9	273.1	269.8
57.5°	3125.5	2536.6	767.9	240.4	244.8	301.3	320.4	307.1	297.6	277.3	271.8
60°	3339.7	2681.8	644.2	226.6	233.3	292.2	312.2	292.2	276.0	276.4	271.5
62.5°	3443.9	2722.5	492.6	210.9	223.8	277.3	300.1	281.1	266.0	278.1	275.3
65°	3364.6	2606.7	351.2	196.3	212.1	259.8	293.1	271.5	261.1	286.4	283.1
67.5°	3079.8	2291.1	254.9	183.4	200.9	242.0	279.8	262.8	256.1	292.6	285.1
69°	2777.3	1978.2	220.8	176.0	193.1	232.4	271.1	258.2	252.4	284.0	273.1
70°	2525.7	1737.1	203.8	171.4	186.4	227.0	264.4	255.2	248.7	273.5	260.7
72.5°	1811.0	1122.7	171.4	157.8	169.0	215.0	249.8	244.5	234.5	246.9	238.6
75°	1094.1	586.0	145.7	143.5	150.7	198.5	232.8	226.1	216.3	217.5	213.4
77.5°	502.7	270.6	122.1	127.0	131.5	177.6	212.1	204.7	195.5	192.2	192.7
80°	220.3	158.1	102.1	108.3	110.8	159.8	189.7	181.4	171.4	189.2	175.6
82.5°	119.1	91.8	79.6	83.8	90.9	139.1	164.8	153.9	144.4	168.2	135.7
85°	48.2	46.9	54.0	58.1	63.1	100.1	137.7	126.6	114.9	102.9	100.4
87.5°	20.8	22.4	26.6	28.2	33.7	62.3	92.6	81.0	81.4	69.7	68.5
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)