

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: P196611

Luminaire Tested: **NAV-AF-03-D-UNV-SL3-7030-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196611  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24262)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-AF-03-D-UNV-SL3-7030-600  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(3) 70 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III  
SPILL LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11528 lumens  
Efficiency: N/A  
Efficacy: 120.1 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')  
IES Classification: Type III - Medium - Non-Cutoff  
BUG Rating: B2 - U0 - G3

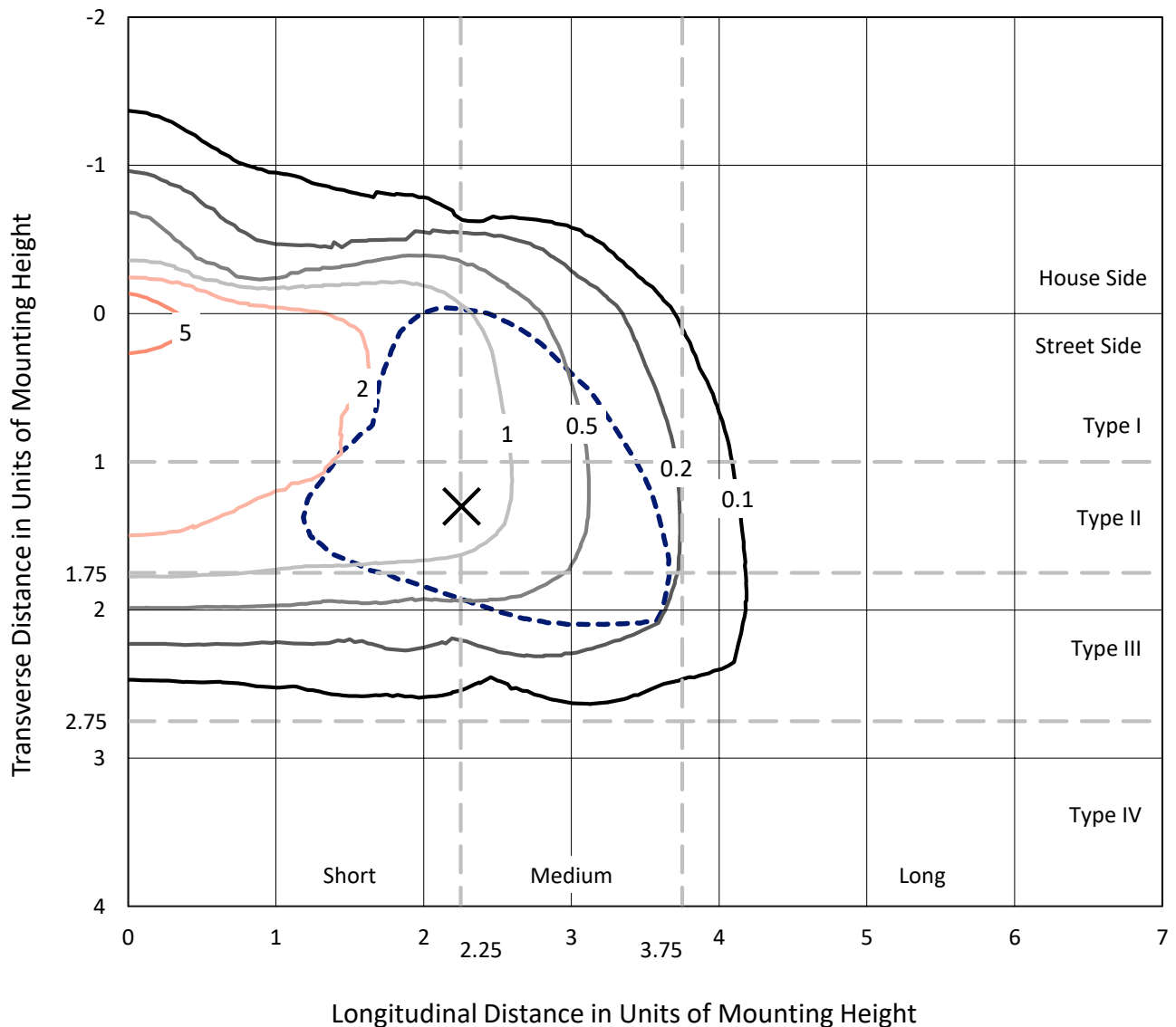
Input Watts (W): 96  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

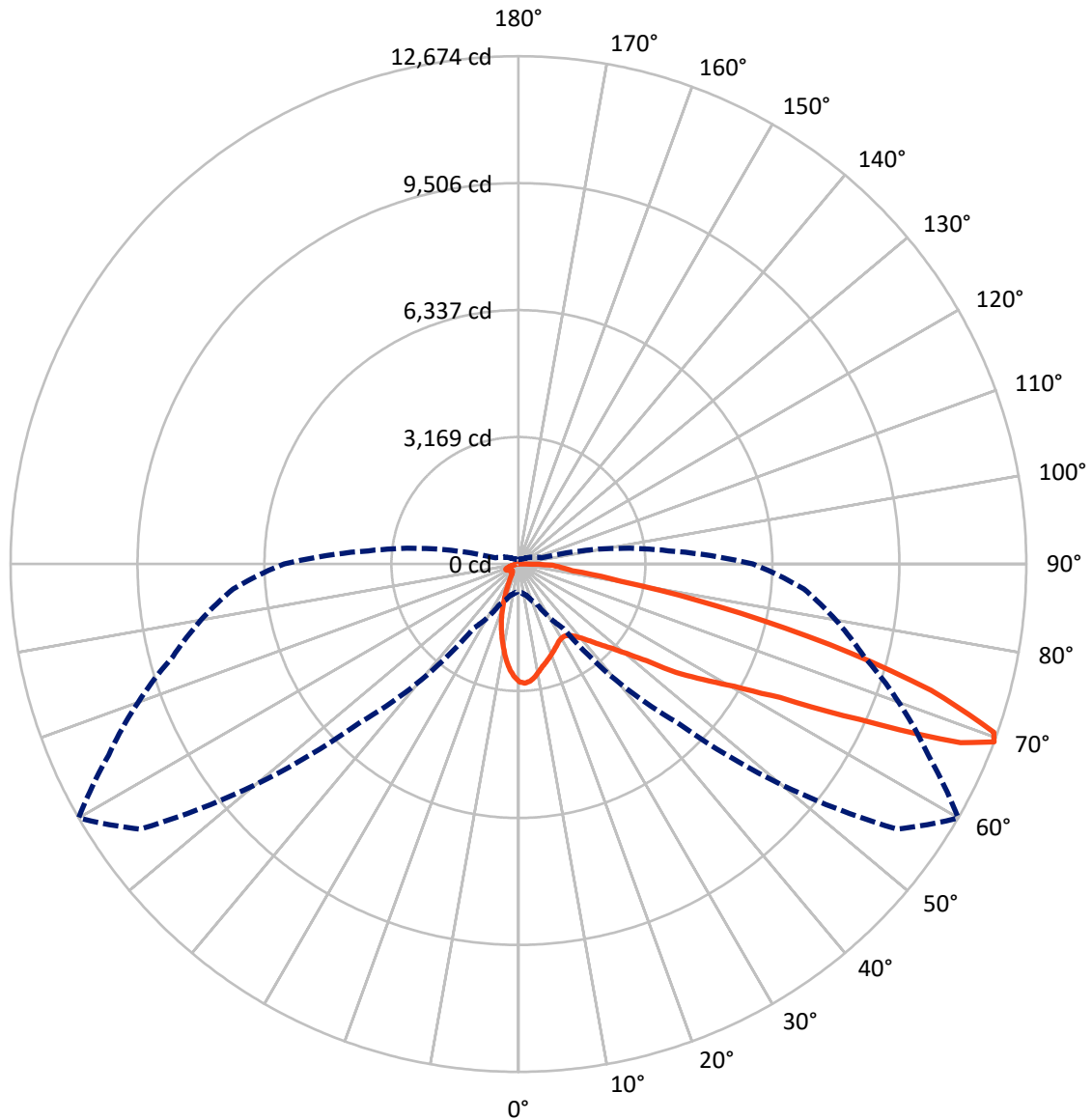
✕ Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 7.4 fc  
 Type III - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral    - - - Horizontal Cone Through 69-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1644.3	0.0	1644.3
	% Fixture	14.3	0.0	14.3
<b>Street Side</b>	Lumens	9883.7	0.0	9883.7
	% Fixture	85.7	0.0	85.7
<b>Total</b>	Lumens	11528.0	0.0	11528.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	249.5	2.2
10°-20°	534.3	4.6
20°-30°	681.6	5.9
30°-40°	937.9	8.1
40°-50°	1519.2	13.2
50°-60°	2384.3	20.7
60°-70°	3178.8	27.6
70°-80°	1768.1	15.3
80°-90°	274.2	2.4
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°	11528.0	100.0
0°-180°	11528.0	100.0

**Coefficient of Utilization**



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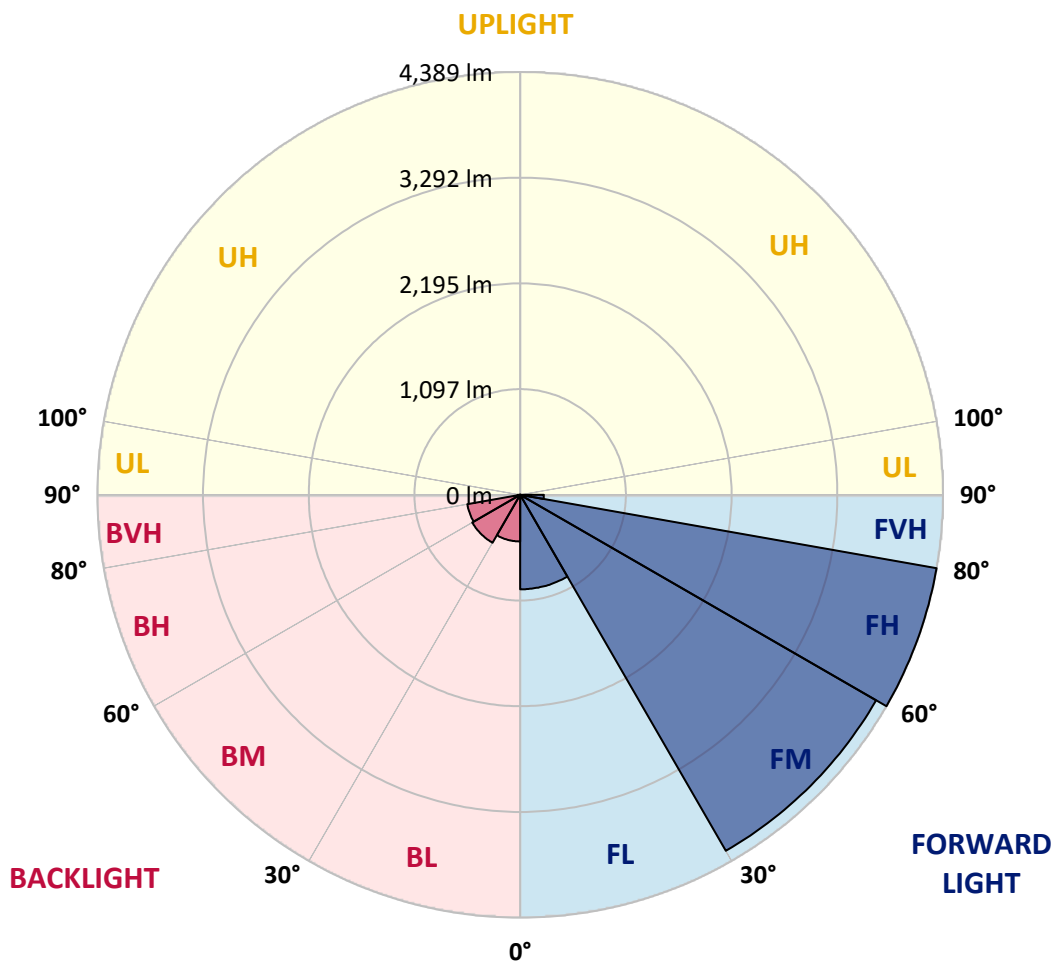
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	980.8	8.5			
FM	(30°-60°)	4267.0	37.0			
FH	(60°-80°)	4389.4	38.1			G2/5000
FVH	(80°-90°)	246.4	2.1			G3/500
BL	(0°-30°)	484.6	4.2	B1/500		
BM	(30°-60°)	574.4	5.0	B1/1000		
BH	(60°-80°)	557.5	4.8	B2/1000		G2/1000
BVH	(80°-90°)	27.8	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-G3**

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	2941.4	2941.4	2941.4	2941.4	2941.4	2941.4	2941.4	2941.4	2941.4	2941.4	2941.4
2.5°	3019.7	3027.9	3027.9	3021.2	3017.5	2996.1	2983.6	2974.7	2959.2	2930.4	2904.4
5°	2911.9	2927.4	2934.0	2937.0	2956.2	2949.6	2950.2	2944.3	2931.0	2900.0	2857.9
7.5°	2713.7	2716.6	2728.5	2748.4	2795.1	2827.5	2854.2	2859.4	2856.4	2833.4	2774.3
10°	2518.5	2523.8	2537.8	2571.8	2616.1	2662.6	2720.3	2744.0	2761.7	2754.3	2679.7
12.5°	2356.6	2357.4	2372.9	2412.1	2461.6	2520.1	2598.4	2635.4	2677.5	2694.5	2611.0
15°	2200.7	2211.1	2225.8	2273.1	2334.5	2408.4	2498.5	2549.6	2605.1	2653.8	2557.8
17.5°	2082.4	2090.5	2099.4	2138.6	2209.5	2302.0	2413.5	2468.2	2541.5	2616.1	2503.0
20°	2017.4	2020.3	2013.6	2032.9	2092.8	2192.5	2321.9	2387.8	2474.9	2579.9	2446.9
22.5°	2004.1	2004.1	1979.7	1976.0	2002.6	2086.9	2227.2	2307.9	2414.3	2554.8	2396.6
25°	2066.1	2061.7	2015.9	1973.8	1964.2	2007.0	2137.1	2236.2	2362.6	2554.1	2358.9
27.5°	2183.6	2177.7	2120.8	2049.9	1988.5	1970.1	2067.6	2168.9	2321.9	2579.2	2339.7
30°	2330.1	2327.9	2270.2	2181.5	2080.2	1984.8	2040.3	2134.2	2294.6	2625.7	2338.9
32.5°	2490.4	2480.0	2444.6	2355.9	2224.3	2066.8	2056.6	2135.6	2287.2	2693.8	2355.9
35°	2661.2	2653.8	2644.9	2555.5	2407.6	2211.7	2128.3	2186.6	2323.4	2788.4	2403.9
37.5°	2878.6	2870.5	2885.2	2787.6	2625.7	2401.7	2249.4	2288.7	2397.3	2925.9	2493.4
40°	3265.2	3241.5	3200.1	3050.1	2880.1	2634.6	2424.7	2430.6	2523.8	3109.9	2636.9
42.5°	3900.1	3824.1	3619.2	3343.6	3148.5	2905.2	2653.2	2625.0	2698.1	3353.1	2845.3
45°	4536.7	4450.9	4105.0	3663.6	3426.4	3195.8	2935.5	2868.2	2915.5	3636.2	3113.7
47.5°	4947.7	4905.5	4515.2	3983.7	3717.5	3512.0	3258.5	3147.6	3181.6	3957.1	3444.8
50°	5068.1	5031.9	4725.1	4234.4	3992.6	3894.2	3658.4	3511.4	3517.3	4331.9	3841.8
52.5°	4978.0	4963.2	4759.9	4389.5	4245.4	4297.1	4212.2	4007.4	3958.6	4743.0	4272.0
55°	4857.4	4862.7	4784.3	4545.5	4502.7	4672.7	4936.6	4771.7	4564.8	5170.9	4720.0
57.5°	4478.2	4482.0	4687.4	4842.7	4993.4	5199.0	5500.5	5431.2	5190.2	5633.0	5221.9
60°	3606.0	3634.8	4092.5	4781.3	5554.5	6236.1	6310.0	6190.3	5855.4	6165.2	5874.7
62.5°	2576.3	2602.1	3132.1	4150.8	5488.7	7410.1	7804.8	7328.7	6758.0	6961.4	6792.7
65°	1353.5	1349.2	1759.4	2868.2	4623.1	7682.0	10159.9	9349.8	8278.6	8056.1	7679.9
67.5°	756.2	780.6	939.5	1446.7	3013.1	6761.0	11664.3	11903.0	10392.8	8924.8	7641.4
69°	699.3	707.5	813.9	1118.5	1964.2	5578.2	11534.9	12674.1	11284.3	8928.4	7149.1
70°	679.4	688.3	785.0	1030.6	1650.0	4570.7	11064.0	12583.9	11500.9	8730.3	6701.1
72.5°	609.1	620.9	714.9	926.3	1390.6	2355.9	8912.2	10770.6	10418.0	7630.3	5196.1
75°	519.6	539.6	681.6	919.6	1317.3	1497.7	5943.3	8024.3	7753.8	5457.0	2948.1
77.5°	215.1	217.3	297.9	673.5	1382.3	1433.4	3194.2	5083.0	4499.8	2392.9	887.8
80°	150.0	147.1	148.6	196.6	1115.5	1443.0	1638.9	2585.1	2009.3	631.3	415.4
82.5°	126.4	124.9	130.9	123.5	377.7	1637.4	1370.5	1347.6	946.1	340.1	198.1
85°	83.6	81.3	107.2	112.3	179.6	1300.3	1474.0	1059.3	705.3	181.8	84.2
87.5°	40.7	41.4	61.4	76.2	95.4	411.8	1411.9	837.6	544.7	79.1	34.0
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°	2941.4	2941.4	2941.4	2941.4	2941.4	2941.4	2941.4	2941.4	2941.4	2941.4	2941.4
2.5°	2894.1	2871.9	2852.0	2826.9	2807.6	2791.3	2769.1	2768.4	2764.7	2769.9	2771.4
5°	2829.9	2792.7	2736.6	2673.8	2629.5	2571.1	2514.2	2494.9	2473.4	2471.2	2477.9
7.5°	2732.9	2675.3	2579.2	2483.0	2387.0	2288.7	2195.4	2148.1	2102.3	2088.3	2094.9
10°	2625.0	2551.9	2404.7	2248.0	2112.7	1966.3	1824.4	1732.8	1649.3	1613.8	1622.6
12.5°	2540.8	2447.6	2240.6	2037.3	1834.8	1624.8	1437.9	1256.7	1119.9	1058.6	1062.2
15°	2468.2	2349.3	2086.9	1816.3	1562.7	1275.2	1015.7	805.8	686.0	641.7	640.1
17.5°	2389.9	2245.9	1926.5	1610.8	1281.8	926.3	680.1	555.9	508.6	493.9	493.9
20°	2306.4	2139.3	1758.6	1386.8	986.2	646.9	511.6	463.5	445.8	441.3	440.6
22.5°	2228.8	2035.1	1590.0	1148.0	713.4	490.9	435.4	417.0	414.0	417.7	417.7
25°	2167.3	1943.4	1419.3	896.7	519.0	411.1	387.4	385.1	396.2	409.5	411.8
27.5°	2121.6	1861.3	1250.8	655.0	408.1	357.9	349.6	359.3	385.1	411.8	417.0
30°	2089.8	1791.2	1049.0	470.9	340.1	313.5	317.2	334.2	373.3	414.0	425.0
32.5°	2075.7	1734.3	845.6	361.4	290.5	275.8	285.3	307.6	348.2	388.9	402.2
35°	2089.0	1692.9	658.0	300.1	254.2	243.2	254.2	277.2	303.8	323.7	331.9
37.5°	2137.1	1678.0	495.3	266.1	230.6	219.5	228.5	243.9	255.7	263.2	266.8
40°	2238.4	1693.6	388.1	248.3	217.3	204.8	206.9	214.3	222.6	228.5	229.1
42.5°	2399.6	1744.6	345.3	241.7	209.2	193.0	189.2	194.4	203.3	211.4	212.9
45°	2613.9	1829.5	340.8	243.9	205.5	183.3	175.9	181.2	193.0	206.3	208.4
47.5°	2891.1	1964.2	361.4	255.7	207.7	178.2	167.0	172.2	187.8	205.5	208.4
50°	3219.4	2150.4	399.9	273.4	218.1	178.2	163.4	167.8	184.1	204.0	206.9
52.5°	3606.0	2409.9	439.9	291.2	232.8	184.7	164.9	164.1	178.8	197.3	201.0
55°	4032.5	2732.1	478.2	306.8	241.0	193.7	168.6	159.6	171.5	186.3	189.2
57.5°	4534.5	3173.6	545.5	321.6	245.4	200.4	172.9	155.2	161.9	172.2	174.5
60°	5215.3	3821.8	676.5	346.7	253.6	203.3	173.7	150.8	150.0	157.5	158.2
62.5°	6103.1	4581.0	801.3	376.3	269.9	204.0	170.8	147.8	140.5	142.7	142.7
65°	6734.4	4860.4	765.2	401.4	284.6	203.3	167.8	145.7	133.1	129.4	129.4
67.5°	6375.1	4293.5	649.8	408.1	286.0	195.1	161.1	140.5	126.4	117.6	117.6
69°	5847.3	3763.4	596.5	396.2	274.2	185.5	153.7	135.3	122.0	111.7	111.7
70°	5417.1	3362.0	564.0	382.2	260.2	177.4	147.1	130.1	117.6	108.7	107.9
72.5°	4044.3	2243.5	482.0	329.8	213.6	150.0	128.6	116.1	105.8	99.8	99.8
75°	2134.2	1124.4	394.8	269.1	164.9	119.7	105.8	97.6	91.7	90.9	90.1
77.5°	699.3	508.6	283.8	202.5	121.3	93.1	84.2	79.1	78.3	81.3	81.3
80°	377.7	303.8	182.6	136.8	84.2	69.5	65.0	64.4	66.5	71.0	71.0
82.5°	183.3	150.0	108.7	84.2	57.7	51.1	51.1	51.8	54.7	59.9	59.9
85°	79.1	71.0	62.9	47.3	35.5	31.8	36.3	39.9	42.2	45.8	47.3
87.5°	37.7	33.3	28.9	18.5	15.6	16.3	19.2	23.7	28.1	31.0	31.8
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)