

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: P270706

Luminaire Tested: **NAV-AF-06-D-UNV-T3-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270706
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-06-D-UNV-T3-7027-600
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 2700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20625.9 lumens
Efficiency: N/A
Efficacy: 106.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G3

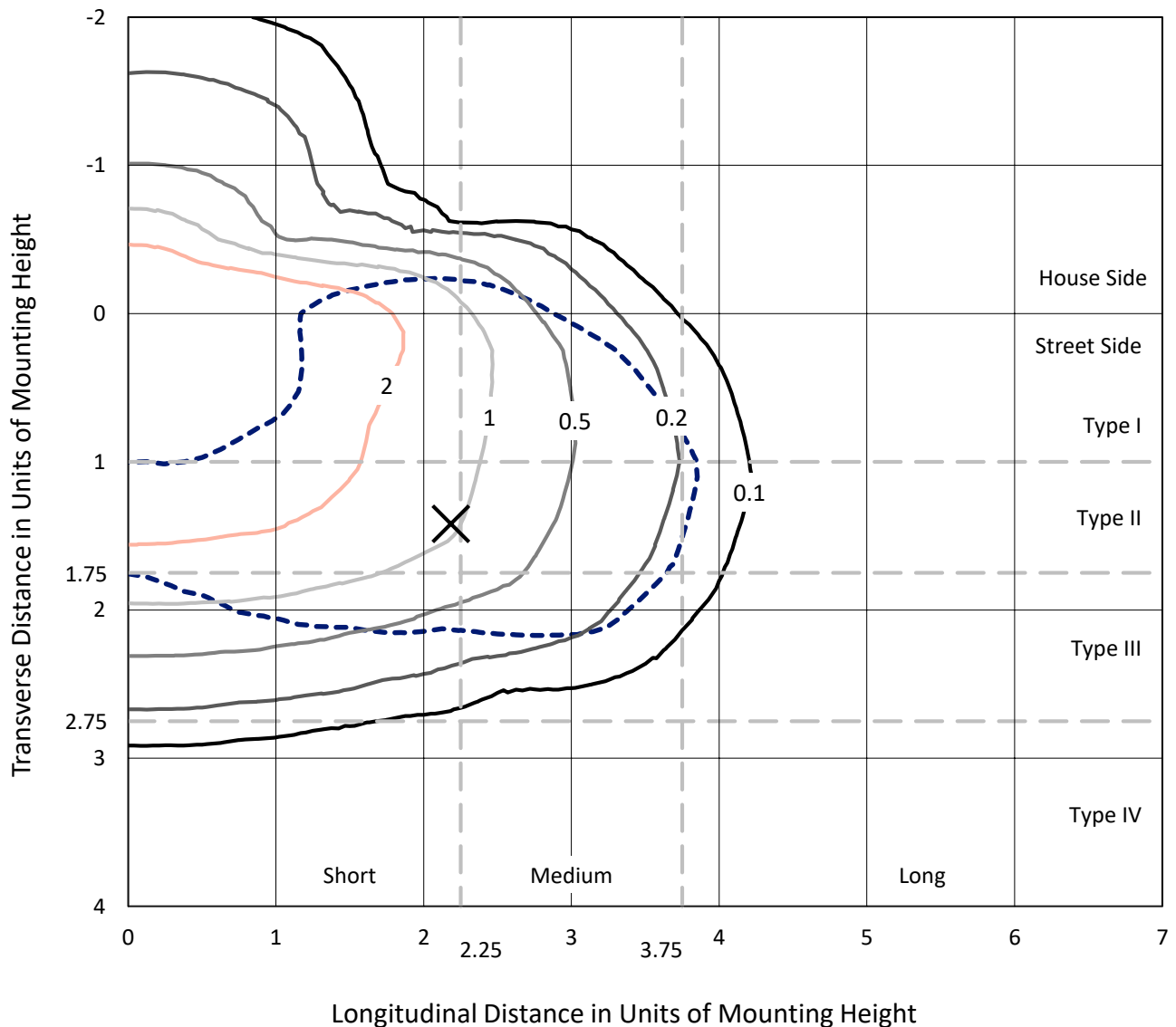
Input Watts (W): 193
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

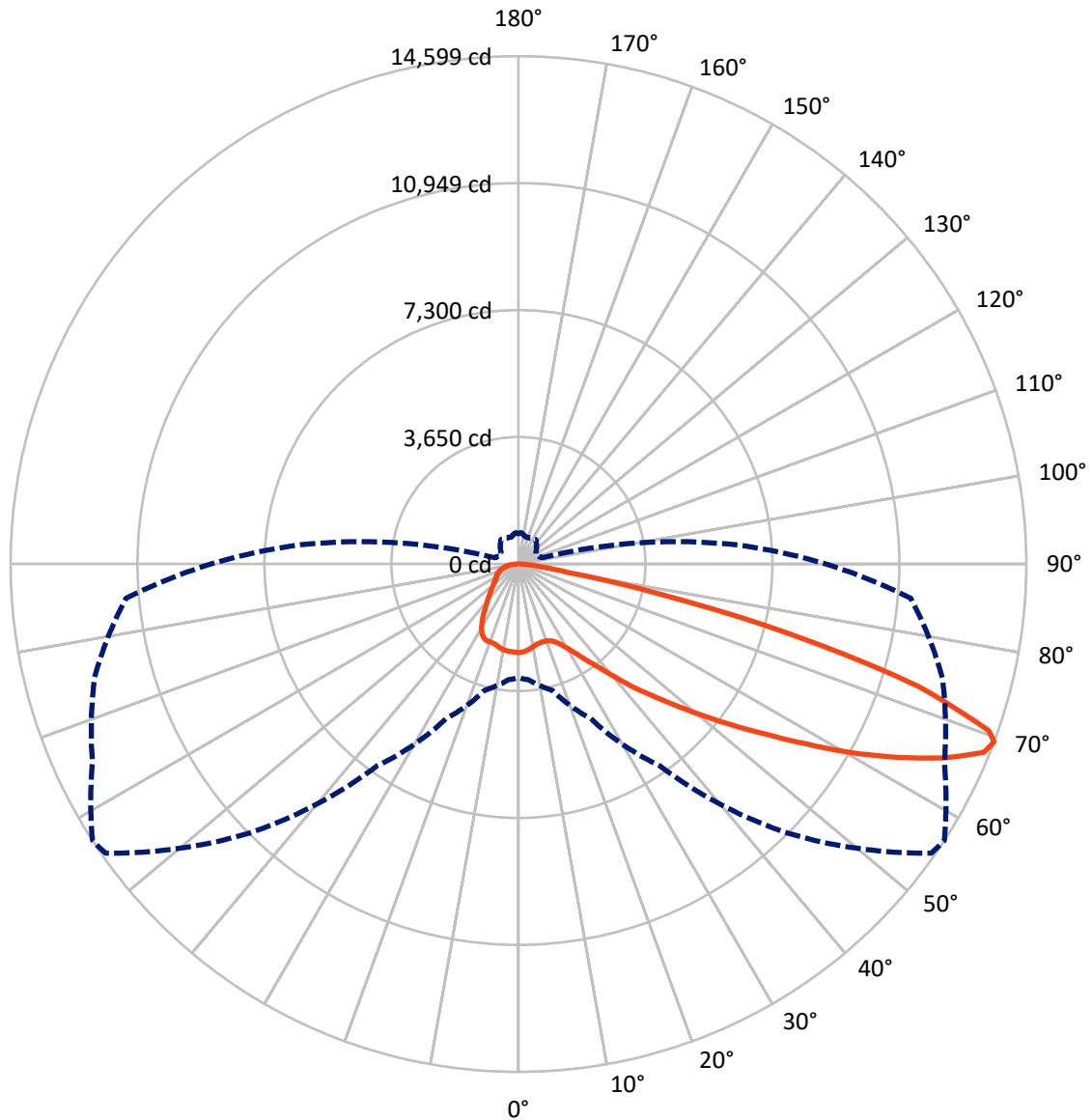
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.2 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	4551.4	0.0	4551.4
	% Fixture	22.1	0.0	22.1
Street Side	Lumens	16074.5	0.0	16074.5
	% Fixture	77.9	0.0	77.9
Total	Lumens	20625.9	0.0	20625.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	238.6	1.2
10°-20°	678.4	3.3
20°-30°	1128.5	5.5
30°-40°	1842.8	8.9
40°-50°	3110.2	15.1
50°-60°	4838.0	23.5
60°-70°	5763.1	27.9
70°-80°	2684.8	13.0
80°-90°	341.5	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°	20625.9	100.0
0°-180°	20625.9	100.0



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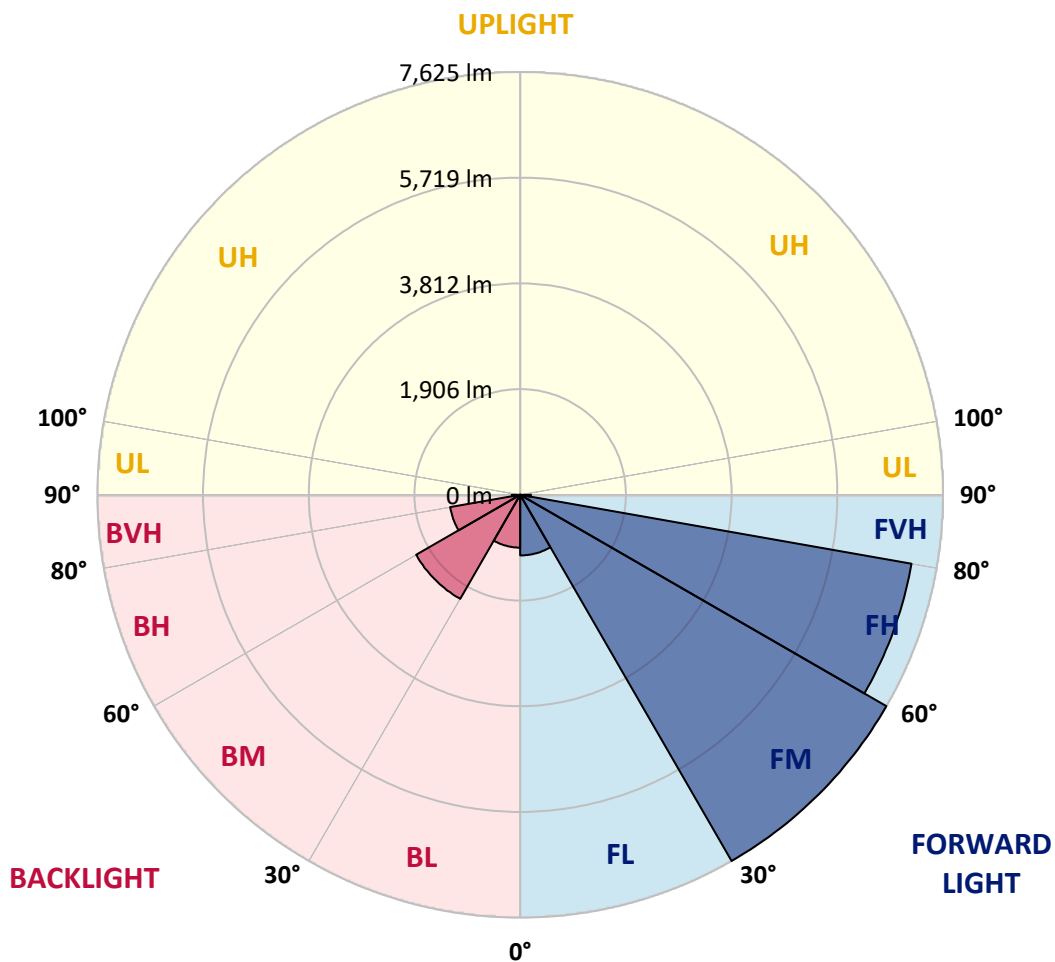
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1092.3	5.3			
FM	(30°-60°)	7624.8	37.0			
FH	(60°-80°)	7165.4	34.7			G3/7500
FVH	(80°-90°)	192.0	0.9			G2/225
BL	(0°-30°)	953.2	4.6	B2/1000		
BM	(30°-60°)	2166.2	10.5	B2/2500		
BH	(60°-80°)	1282.5	6.2	B3/2500		G3/2500
BVH	(80°-90°)	149.5	0.7			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	2548.5	2548.5	2548.5	2548.5	2548.5	2548.5	2548.5	2548.5	2548.5	2548.5	2548.5
2.5°	2533.9	2533.9	2540.5	2540.5	2540.5	2537.9	2530.0	2532.7	2527.4	2523.3	2516.8
5°	2482.5	2485.2	2493.1	2495.8	2499.7	2501.1	2501.1	2499.7	2501.1	2501.1	2497.0
7.5°	2411.2	2413.8	2423.1	2428.4	2440.2	2450.8	2456.1	2456.1	2462.8	2468.0	2469.4
10°	2367.7	2367.7	2373.0	2373.0	2382.1	2387.4	2404.7	2403.2	2421.8	2438.9	2446.9
12.5°	2362.4	2362.4	2359.7	2350.4	2345.1	2343.9	2361.0	2363.7	2391.4	2421.8	2436.3
15°	2379.5	2379.5	2371.5	2353.1	2333.3	2324.1	2341.3	2346.6	2376.8	2412.5	2434.9
17.5°	2434.9	2433.7	2416.5	2379.5	2345.1	2330.7	2336.0	2341.3	2368.9	2409.9	2437.6
20°	2557.7	2557.7	2520.9	2453.5	2394.1	2359.7	2351.8	2355.7	2375.6	2413.8	2449.5
22.5°	2773.0	2777.0	2710.9	2600.1	2498.4	2425.8	2394.1	2397.9	2407.3	2444.2	2483.9
25°	3089.9	3079.4	2985.5	2828.5	2670.0	2545.8	2481.2	2485.2	2485.2	2519.4	2560.3
27.5°	3425.2	3427.9	3293.2	3124.2	2915.5	2730.8	2627.7	2626.5	2625.0	2658.2	2701.7
30°	3804.3	3805.6	3649.9	3454.3	3215.4	2979.0	2824.5	2823.2	2811.2	2852.2	2909.0
32.5°	4218.9	4217.6	4036.8	3816.2	3550.8	3282.6	3081.9	3080.6	3071.5	3126.9	3195.6
35°	4678.5	4678.5	4498.9	4226.9	3940.3	3641.9	3409.4	3408.2	3413.4	3488.7	3553.4
37.5°	5231.6	5243.6	5027.1	4697.0	4384.0	4065.8	3795.1	3787.2	3747.5	3874.3	3981.3
40°	5808.8	5841.8	5617.3	5231.6	4893.6	4564.8	4266.5	4261.2	4226.9	4361.5	4534.6
42.5°	6433.4	6508.6	6259.1	5865.6	5497.2	5142.0	4842.3	4827.8	4695.6	4905.6	5176.3
45°	7252.0	7301.0	6939.0	6582.6	6235.2	5829.9	5473.5	5395.5	5263.3	5532.8	5884.1
47.5°	7809.3	7785.5	7559.7	7320.7	7097.6	6709.4	6161.4	6062.3	5901.2	6257.8	6644.7
50°	8155.3	8172.4	8045.7	8033.8	8022.0	7751.3	6937.8	6818.9	6632.7	7055.3	7507.0
52.5°	8383.7	8305.8	8328.2	8597.7	8923.9	8794.3	7816.0	7683.8	7492.5	7915.0	8424.7
55°	8288.7	8185.6	8393.0	8923.9	9690.9	9720.0	8779.9	8643.9	8480.1	8828.7	9528.6
57.5°	7895.2	7946.6	8274.1	9012.2	10215.3	10549.2	9887.7	9749.0	9427.0	9780.7	10577.1
60°	7341.8	7446.2	7946.6	8872.3	10582.4	11194.9	11103.9	11011.5	10456.9	10707.7	11678.3
62.5°	6747.7	6850.7	7466.1	8633.3	10417.3	11766.8	12297.5	12240.8	11593.7	11600.4	12376.8
65°	5869.5	5911.7	6540.3	7981.0	9959.1	12283.1	13492.6	13442.4	12680.6	12362.4	12572.3
67.5°	4432.9	4485.6	5001.9	6300.1	8564.6	12003.2	14447.4	14439.4	13334.3	12644.9	12107.4
69°	3273.5	3338.2	3759.3	4891.0	7081.7	10936.1	14492.3	14599.3	13511.1	12615.8	11321.8
70°	2395.3	2469.4	2858.9	3882.3	5898.6	9758.4	14108.1	14337.8	13443.8	12432.4	10709.1
72.5°	1018.0	1043.2	1234.6	1752.2	2992.3	5884.1	11555.4	12038.7	12141.9	11139.5	8366.5
75°	637.7	645.7	721.0	899.3	1331.1	2433.7	7483.2	8142.1	9065.1	8642.6	5601.6
77.5°	480.7	487.2	530.8	619.3	826.6	908.5	3471.5	4139.7	5192.2	5083.9	2787.5
80°	368.5	372.3	401.5	450.3	582.3	569.2	1126.4	1415.5	2166.9	1912.0	986.3
82.5°	289.2	290.5	315.6	324.8	406.8	382.9	565.2	629.9	875.5	727.5	482.0
85°	256.1	260.1	285.2	237.7	260.1	231.0	310.4	336.8	464.9	438.5	182.3
87.5°	130.8	137.4	238.9	203.3	130.8	109.7	136.1	146.6	188.9	204.6	88.5
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°	2548.5	2548.5	2548.5	2548.5	2548.5	2548.5	2548.5	2548.5	2548.5	2548.5	2548.5
2.5°	2518.2	2519.4	2523.3	2530.0	2540.5	2553.8	2569.6	2585.5	2594.8	2601.3	2598.6
5°	2497.0	2498.4	2506.4	2518.2	2531.3	2551.1	2577.5	2597.4	2611.9	2621.2	2619.8
7.5°	2470.6	2474.7	2490.5	2503.7	2522.1	2537.9	2559.1	2577.5	2592.1	2601.3	2600.1
10°	2450.8	2454.8	2474.7	2491.8	2507.6	2510.3	2506.4	2501.1	2499.7	2506.4	2503.7
12.5°	2441.6	2449.5	2468.0	2479.9	2473.3	2448.2	2419.1	2407.3	2403.2	2416.5	2417.8
15°	2444.2	2450.8	2466.7	2458.8	2423.1	2380.8	2365.0	2374.2	2382.1	2390.1	2391.4
17.5°	2450.8	2454.8	2458.8	2429.6	2379.5	2351.8	2346.6	2337.2	2313.4	2300.3	2298.9
20°	2462.8	2468.0	2461.4	2415.2	2370.3	2333.3	2269.8	2213.2	2158.9	2129.9	2118.1
22.5°	2503.7	2507.6	2487.8	2442.9	2374.2	2254.0	2126.0	2028.3	1945.1	1900.2	1882.9
25°	2584.2	2590.8	2563.0	2506.4	2326.7	2116.8	1935.8	1803.7	1699.5	1645.3	1630.9
27.5°	2725.5	2732.0	2701.7	2553.8	2215.8	1933.2	1714.0	1583.3	1493.4	1447.3	1440.6
30°	2936.7	2946.0	2918.2	2552.4	2046.8	1699.5	1497.5	1420.8	1369.3	1337.7	1336.3
32.5°	3229.9	3264.3	3150.6	2507.6	1838.1	1463.1	1333.7	1307.3	1282.2	1261.1	1261.1
35°	3602.3	3682.8	3380.4	2413.8	1608.3	1302.1	1242.5	1217.6	1185.9	1163.3	1160.7
37.5°	4047.3	4172.6	3544.2	2247.5	1410.2	1224.1	1187.1	1146.1	1096.0	1052.5	1041.9
40°	4658.6	4687.6	3624.8	1976.8	1262.4	1181.8	1135.5	1084.2	1020.7	971.8	966.5
42.5°	5272.7	5177.7	3608.9	1686.3	1177.9	1143.5	1082.7	1026.0	969.2	928.3	928.3
45°	5971.3	5605.5	3488.7	1394.3	1101.3	1100.0	1033.9	979.8	936.3	905.9	899.3
47.5°	6639.4	5989.7	3281.4	1179.1	1022.0	1056.3	1002.2	958.8	919.1	890.0	884.7
50°	7450.2	6434.6	3060.9	1028.6	945.5	1018.0	989.0	966.5	928.3	878.2	872.9
52.5°	8255.7	6954.9	2890.6	915.2	878.2	987.7	996.9	999.6	963.9	866.2	859.7
55°	9120.5	7510.9	2710.9	826.6	822.7	973.3	1015.4	1012.7	995.6	868.9	858.3
57.5°	9943.2	8069.5	2442.9	764.5	779.1	958.8	1019.3	977.1	946.8	882.0	864.9
60°	10624.6	8531.7	2049.4	721.0	742.1	929.7	992.9	929.7	878.2	879.4	863.6
62.5°	10956.0	8661.0	1567.5	670.9	711.7	882.0	954.7	894.0	846.5	884.7	875.5
65°	10703.8	8292.7	1117.1	624.6	674.7	826.6	932.3	863.6	830.7	911.2	900.6
67.5°	9798.0	7289.0	810.8	583.7	639.1	769.8	890.0	835.9	814.8	931.0	907.2
69°	8835.3	6293.3	702.5	559.9	614.0	739.5	862.3	821.3	802.8	903.2	868.9
70°	8035.1	5526.3	648.3	545.4	592.9	722.2	841.2	812.1	791.0	870.2	829.2
72.5°	5761.2	3571.9	545.4	501.8	537.5	684.0	794.9	777.8	746.0	785.7	759.2
75°	3480.8	1864.5	463.4	456.9	479.3	631.1	740.8	719.6	687.9	692.0	678.7
77.5°	1599.2	860.9	388.2	404.1	418.6	565.2	674.7	651.0	621.9	611.3	612.7
80°	701.1	503.1	324.8	344.6	352.6	508.4	603.4	577.0	545.4	602.1	558.6
82.5°	378.9	291.8	253.5	266.7	289.2	442.3	524.3	489.8	459.6	534.9	431.7
85°	153.3	149.2	171.7	185.0	200.7	318.2	438.5	402.7	365.8	327.5	319.5
87.5°	66.0	71.3	84.5	89.8	107.0	198.0	294.5	257.5	258.8	221.8	217.8
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)