

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: P197285

Luminaire Tested: **NAV-AF-05-D-UNV-T3R-8030-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P197285
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-05-D-UNV-T3R-8030-600
Description: NAVION ROADWAY AND AREA LUMINAIRE
(5) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16443 lumens
Efficiency: N/A
Efficacy: 101.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type III - Medium - Full Cutoff
BUG Rating: B2 - U0 - G3

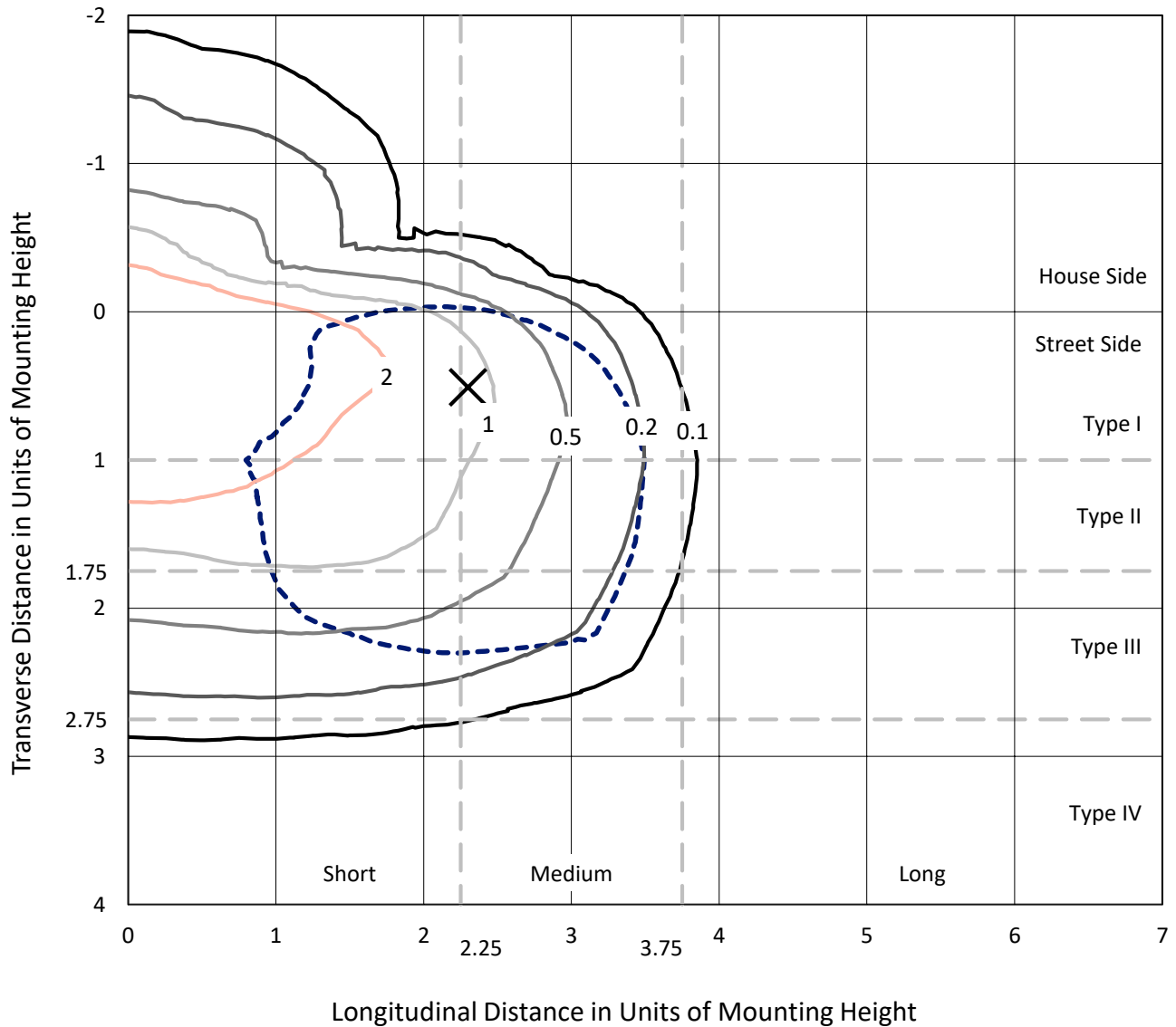
Input Watts (W): 162
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P197285
 CATALOG NUMBER: NAV-AF-05-D-UNV-T3R-8030-600

Iso-Footcandle Lines of Horizontal Illumination

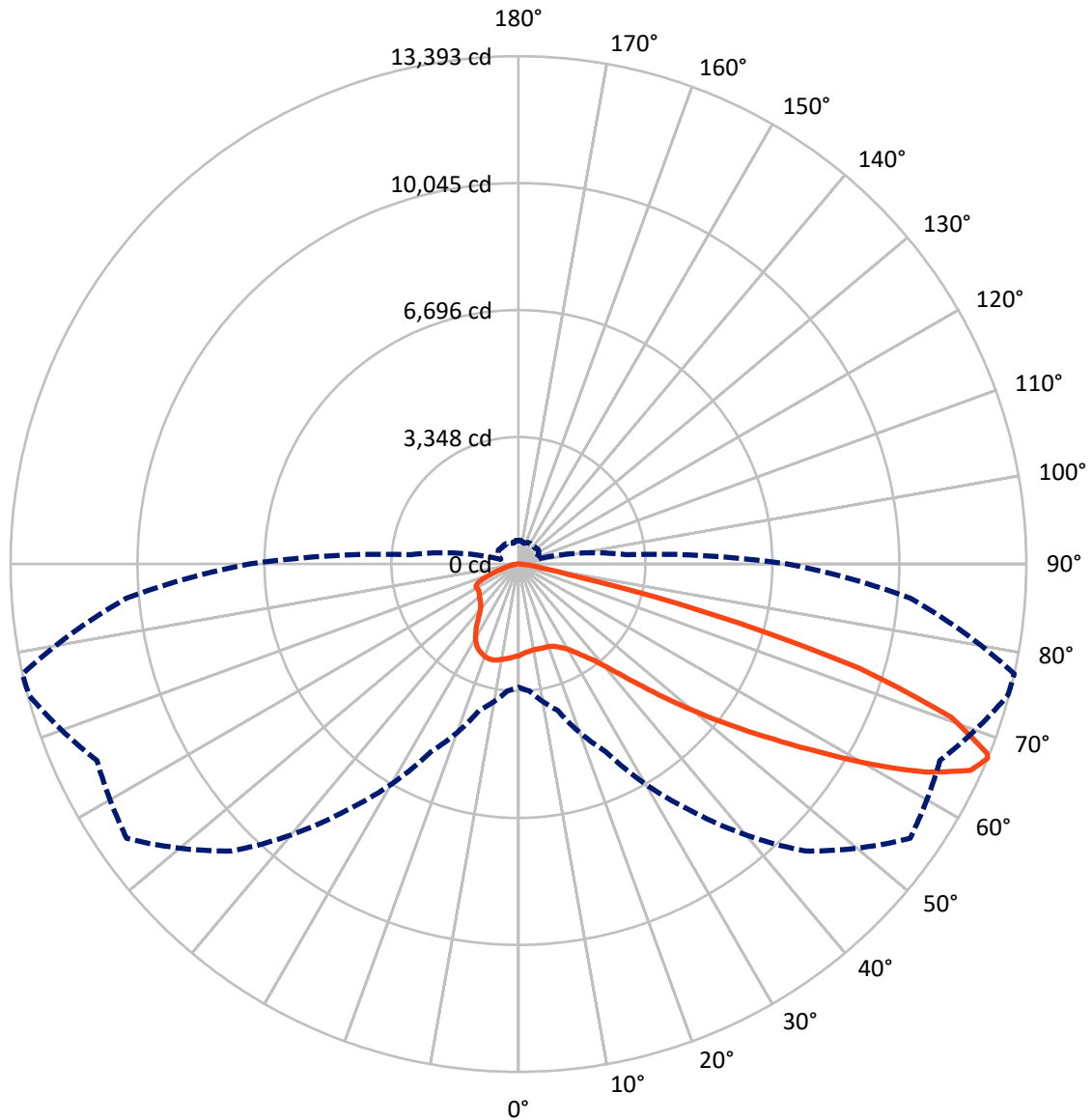
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.7 fc
 Type III - Medium - Full Cutoff

REPORT NUMBER: P197285
CATALOG NUMBER: NAV-AF-05-D-UNV-T3R-8030-600

Luminous Intensity Polar Plot



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

REPORT NUMBER: P197285

CATALOG NUMBER: NAV-AF-05-D-UNV-T3R-8030-600

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2825.7	0.0	2825.7
	% Fixture	17.2	0.0	17.2
Street Side	Lumens	13617.3	0.0	13617.3
	% Fixture	82.8	0.0	82.8
Total	Lumens	16443.0	0.0	16443.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	215.5	1.3
10°-20°	596.9	3.6
20°-30°	1014.2	6.2
30°-40°	1622.4	9.9
40°-50°	2497.8	15.2
50°-60°	3465.4	21.1
60°-70°	4622.6	28.1
70°-80°	2199.9	13.4
80°-90°	208.3	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°	16443.0	100.0
0°-180°	16443.0	100.0



REPORT NUMBER: P197285

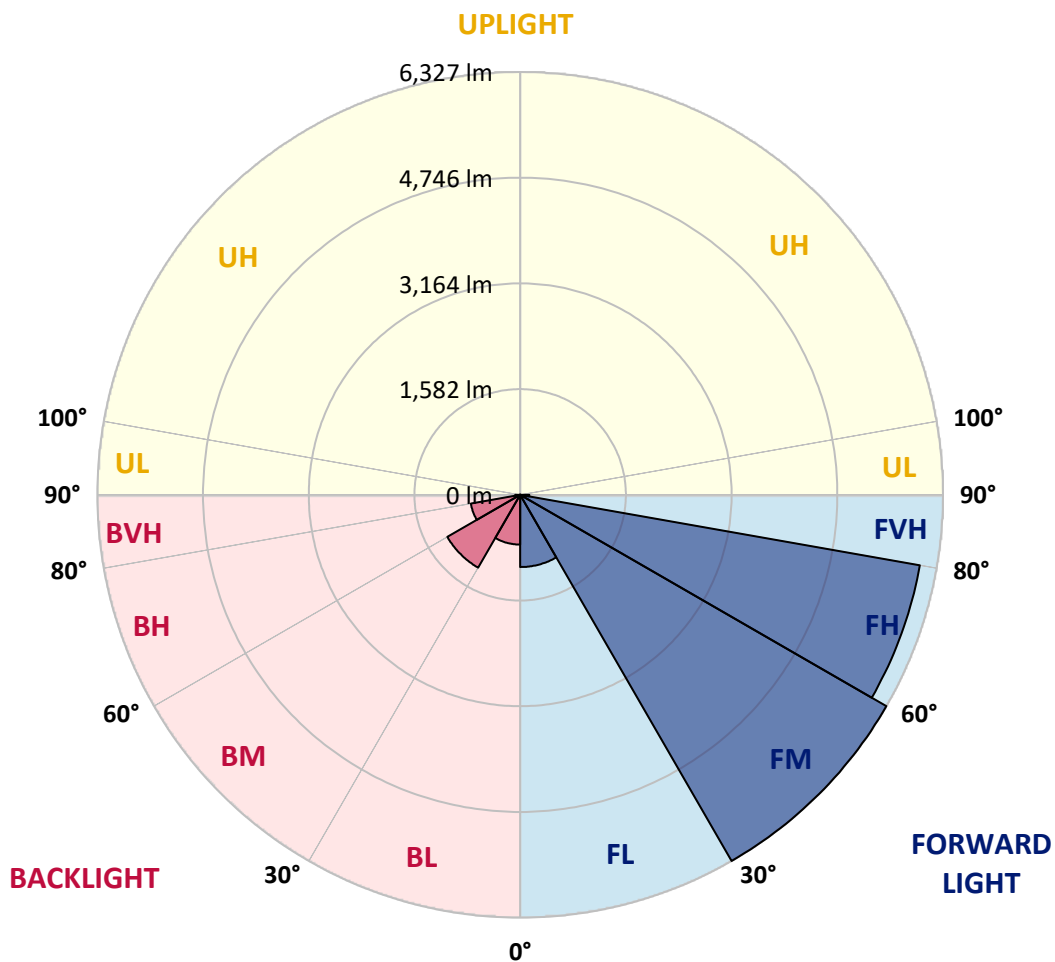
CATALOG NUMBER: NAV-AF-05-D-UNV-T3R-8030-600

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1081.3	6.6			
FM	(30°-60°)	6327.4	38.5			
FH	(60°-80°)	6073.3	36.9			G3/7500
FVH	(80°-90°)	135.3	0.8			G2/225
BL	(0°-30°)	745.3	4.5	B2/1000		
BM	(30°-60°)	1258.2	7.7	B2/2500		
BH	(60°-80°)	749.2	4.6	B2/1000		G2/1000
BVH	(80°-90°)	73.0	0.4			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





REPORT NUMBER: P197285

CATALOG NUMBER: NAV-AF-05-D-UNV-T3R-8030-600

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77.5°	85°
0°	2420.0	2420.0	2420.0	2420.0	2420.0	2420.0	2420.0	2420.0	2420.0	2420.0	2420.0
2.5°	2170.0	2180.1	2181.1	2210.6	2223.8	2257.4	2293.9	2326.5	2354.9	2365.1	2383.4
5°	1952.4	1952.4	1955.5	1974.8	2012.4	2066.3	2142.5	2225.9	2313.3	2334.6	2388.5
7.5°	1838.6	1840.6	1842.7	1862.0	1891.5	1939.2	2015.5	2129.3	2274.6	2310.2	2404.7
10°	1848.8	1845.7	1835.6	1831.5	1843.7	1874.2	1940.3	2057.1	2242.1	2297.0	2434.2
12.5°	2008.3	2002.2	1968.7	1919.9	1875.2	1864.0	1909.8	2020.5	2226.9	2297.0	2484.0
15°	2281.8	2285.8	2219.8	2118.1	2001.2	1922.0	1915.9	2007.3	2221.8	2303.1	2541.9
17.5°	2637.5	2639.5	2548.0	2400.7	2206.5	2042.9	1957.5	2007.3	2221.8	2309.2	2597.8
20°	3015.6	3001.3	2897.7	2712.7	2460.6	2210.6	2033.8	2019.5	2227.9	2318.3	2650.7
22.5°	3339.8	3326.6	3217.8	3023.7	2735.1	2408.8	2136.4	2060.2	2261.4	2355.9	2724.9
25°	3623.4	3631.5	3525.8	3307.3	3008.5	2632.4	2289.9	2153.7	2331.6	2424.0	2816.4
27.5°	3967.9	3952.7	3830.7	3622.3	3290.0	2864.1	2482.0	2271.6	2414.9	2506.4	2928.2
30°	4366.3	4359.2	4194.6	3980.1	3600.0	3123.3	2672.0	2398.6	2523.6	2619.2	3068.4
32.5°	4850.1	4849.1	4672.3	4409.0	3948.6	3416.0	2896.7	2572.4	2682.2	2778.8	3254.4
35°	5397.9	5396.9	5214.0	4866.4	4350.1	3740.2	3160.9	2783.8	2878.4	2980.0	3476.0
37.5°	5778.1	5772.0	5676.4	5339.0	4794.2	4117.3	3491.2	3068.4	3100.9	3214.8	3743.3
40°	5851.2	5887.8	5970.2	5771.0	5279.0	4536.1	3822.6	3374.3	3404.8	3551.2	4079.7
42.5°	5772.0	5819.7	6093.1	6149.0	5763.8	5043.2	4237.2	3798.2	3836.8	4018.7	4475.1
45°	5702.9	5744.5	6087.0	6358.4	6242.5	5596.1	4754.6	4315.5	4388.7	4614.3	4926.3
47.5°	5585.0	5623.6	5967.1	6396.0	6515.9	6128.7	5377.6	4937.5	5063.6	5337.0	5440.6
50°	5578.9	5596.1	5803.5	6270.0	6610.5	6533.2	6067.7	5665.2	5858.4	6173.4	6009.8
52.5°	5424.4	5545.3	5733.3	6068.7	6612.5	6769.0	6747.7	6463.1	6760.9	7109.5	6633.8
55°	4479.1	4618.4	5499.6	5970.2	6600.3	6971.3	7368.7	7311.8	7777.3	8144.2	7333.1
57.5°	4182.4	4241.3	4824.7	5999.6	6701.9	7305.7	7989.7	8223.5	8940.0	9340.4	8171.6
60°	4101.1	4163.1	4689.5	6013.9	6977.4	7914.5	8832.3	9253.0	10307.0	10731.9	9124.0
62.5°	4010.6	4090.9	4699.7	6027.1	7461.2	8815.0	9950.3	10370.0	11710.6	12089.7	10016.3
65°	3746.3	3853.1	4511.7	5943.7	7990.7	9945.2	11428.1	11534.8	12870.3	13111.2	10555.0
67°	3245.3	3362.2	3995.4	5462.0	7941.9	10706.4	12610.1	12263.5	13363.2	13392.7	10380.2
67.5°	3086.7	3207.7	3820.5	5261.7	7802.7	10806.0	12819.5	12364.1	13359.2	13326.6	10217.6
70°	2078.5	2214.7	2705.6	3863.2	6258.8	10057.0	12768.7	12054.2	12483.1	12110.1	8778.4
72.5°	1031.6	1035.7	1349.7	2116.1	3792.1	7213.2	10651.6	10312.1	10119.0	9414.6	6441.8
75°	497.0	506.2	637.3	935.1	1598.8	3724.0	7264.0	6958.1	5924.4	5129.6	3223.9
77.5°	379.1	388.3	495.0	608.8	666.7	1214.6	3598.0	2907.8	1716.6	1371.1	908.6
80°	292.7	310.0	417.7	467.5	441.1	486.8	1131.2	890.3	667.8	612.9	450.3
82.5°	228.7	238.8	354.7	354.7	304.9	326.3	526.5	514.3	414.7	374.0	241.9
85°	161.6	181.9	285.6	264.3	200.2	202.3	315.1	301.9	213.4	171.8	94.5
87.5°	72.2	92.5	203.3	172.8	106.7	82.3	129.1	110.8	84.4	65.0	43.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P197285

CATALOG NUMBER: NAV-AF-05-D-UNV-T3R-8030-600

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2420.0	2420.0	2420.0	2420.0	2420.0	2420.0	2420.0	2420.0	2420.0	2420.0	2420.0
2.5°	2403.7	2420.0	2445.4	2460.6	2481.0	2489.1	2497.2	2511.5	2522.6	2519.6	2514.5
5°	2426.1	2453.5	2485.0	2495.2	2495.2	2485.0	2478.9	2479.9	2476.9	2474.9	2468.8
7.5°	2458.6	2496.2	2518.6	2508.4	2476.9	2437.3	2399.7	2377.3	2355.9	2342.7	2346.8
10°	2504.3	2546.0	2547.0	2502.3	2427.1	2340.7	2266.5	2218.7	2173.0	2152.7	2158.8
12.5°	2570.4	2612.1	2576.5	2479.9	2347.8	2212.6	2076.4	1977.9	1889.4	1868.1	1862.0
15°	2641.5	2674.1	2594.8	2432.2	2234.0	2011.4	1782.7	1635.3	1536.8	1519.5	1513.4
17.5°	2703.5	2721.8	2585.6	2346.8	2054.1	1703.4	1437.1	1337.5	1317.2	1327.4	1327.4
20°	2758.4	2752.3	2546.0	2214.7	1770.5	1361.9	1207.4	1206.4	1233.9	1259.3	1261.3
22.5°	2827.5	2779.8	2483.0	2018.5	1432.1	1136.3	1109.9	1136.3	1166.8	1195.3	1198.3
25°	2909.9	2810.3	2398.6	1739.0	1151.5	1031.6	1042.8	1065.2	1084.5	1106.8	1107.8
27.5°	2992.2	2833.6	2279.7	1410.7	999.1	964.5	976.7	985.9	991.0	1005.2	1005.2
30°	3087.7	2851.9	2108.0	1130.2	929.0	905.6	898.5	894.4	898.5	917.8	918.8
32.5°	3207.7	2884.5	1873.2	969.6	896.4	863.9	827.3	807.0	821.2	855.8	861.9
35°	3343.9	2923.1	1591.6	905.6	885.3	843.6	776.5	745.0	750.1	781.6	786.7
37.5°	3514.6	2972.9	1314.2	890.3	896.4	841.6	753.1	708.4	686.0	687.1	686.0
40°	3733.1	3022.7	1094.6	894.4	920.8	846.6	742.0	671.8	625.1	627.1	631.2
42.5°	3961.8	3055.2	955.4	906.6	950.3	853.8	737.9	636.2	595.6	630.1	661.7
45°	4229.1	3046.1	883.2	917.8	972.7	856.8	722.6	632.2	598.6	702.3	761.3
47.5°	4536.1	3006.4	842.6	922.9	978.8	855.8	711.5	645.4	624.1	803.9	871.0
50°	4869.4	2944.4	810.0	914.7	975.7	851.7	723.7	661.7	634.2	826.3	878.1
52.5°	5234.3	2887.5	776.5	896.4	960.5	839.5	738.9	654.5	605.8	761.3	800.9
55°	5666.3	2874.3	738.9	864.9	935.1	826.3	730.8	632.2	574.2	674.9	699.3
57.5°	6160.2	2956.6	690.1	826.3	900.5	799.9	711.5	620.0	563.1	613.9	627.1
60°	6787.3	3138.6	638.3	785.7	857.8	760.2	694.2	623.0	566.1	604.7	607.8
62.5°	7277.2	3302.2	591.5	735.9	800.9	712.5	675.9	626.1	575.3	616.9	611.9
65°	7455.1	3221.9	533.6	661.7	720.6	659.6	650.5	628.1	575.3	624.1	612.9
67°	7090.2	2838.7	478.7	587.5	644.4	612.9	626.1	620.0	565.1	623.0	603.7
67.5°	6916.4	2703.5	464.5	575.3	624.1	598.6	620.0	615.9	562.1	621.0	598.6
70°	5703.9	1939.2	392.3	482.8	522.4	527.5	582.4	589.5	537.7	583.4	542.7
72.5°	4058.4	1213.5	338.5	374.0	421.8	451.3	531.6	553.9	505.1	507.2	473.6
75°	2008.3	651.5	301.9	288.6	328.3	376.1	463.5	505.1	457.4	422.8	411.6
77.5°	677.9	368.9	255.1	232.7	255.1	301.9	384.2	441.1	403.5	357.8	350.6
80°	350.6	268.3	199.2	187.0	201.2	233.8	300.8	366.9	344.5	346.6	285.6
82.5°	218.5	163.6	143.3	142.3	152.5	178.9	221.6	297.8	295.8	253.1	184.0
85°	101.6	94.5	91.5	94.5	97.6	101.6	144.3	212.4	224.6	136.2	120.9
87.5°	42.7	41.7	36.6	39.6	43.7	42.7	57.9	90.5	126.0	85.4	78.3
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)