

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: McGRAW-EDISON

Report Number: P299014

Luminaire Tested: **GLNA-AF-07-LED-E1-T2-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299014
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24139)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-07-LED-E1-T2-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 27124.6 lumens
Efficiency: N/A
Efficacy: 120.0 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B3 - U0 - G4

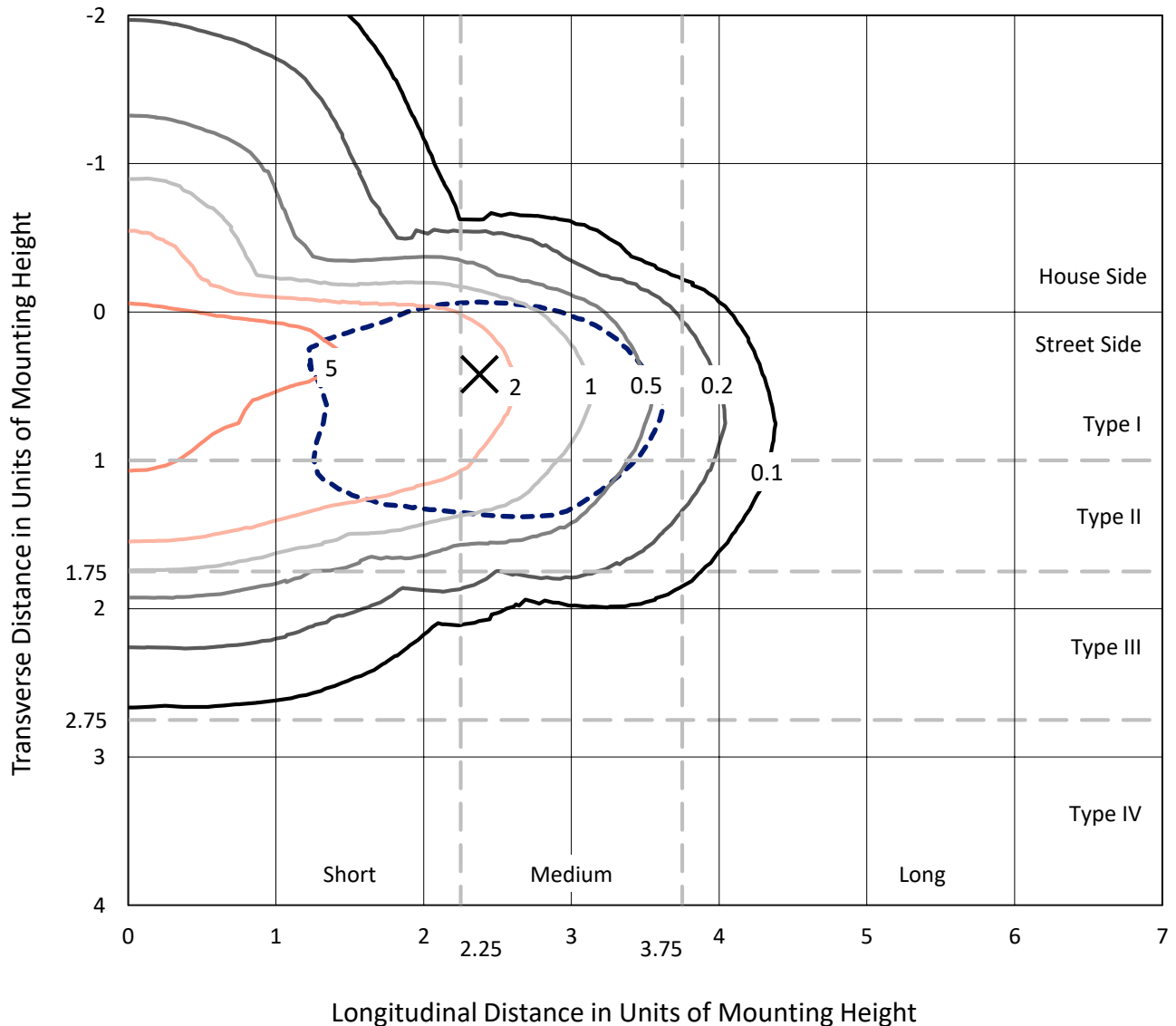
Input Watts (W): 226
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

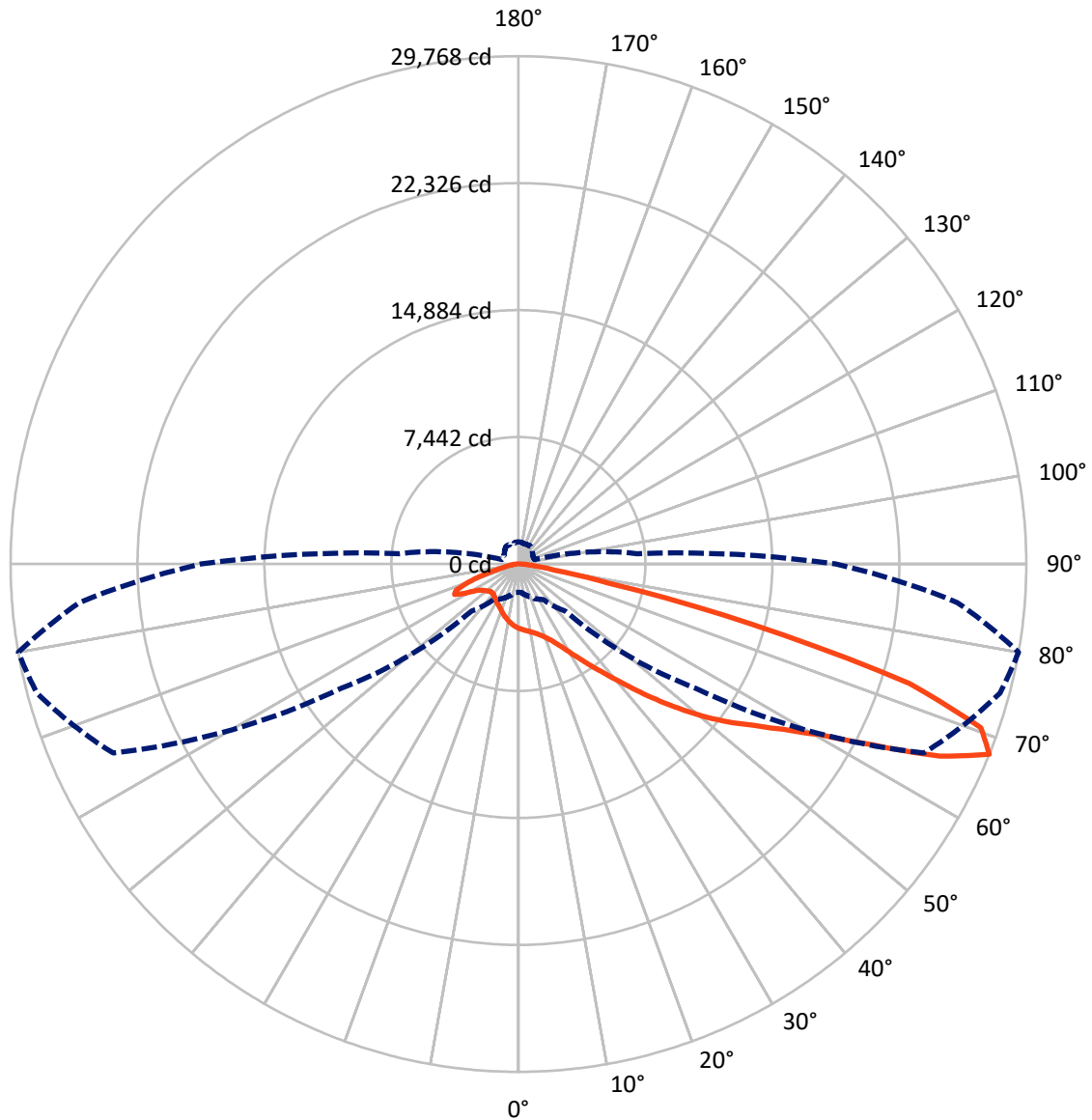
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.3 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 80-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4995.3	0.0	4995.3
	% Fixture	18.4	0.0	18.4
Street Side	Lumens	22129.2	0.0	22129.2
	% Fixture	81.6	0.0	81.6
Total	Lumens	27124.6	0.0	27124.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	347.6	1.3
10°-20°	1001.4	3.7
20°-30°	1657.5	6.1
30°-40°	2711.3	10.0
40°-50°	4377.6	16.1
50°-60°	6320.0	23.3
60°-70°	6974.5	25.7
70°-80°	3214.8	11.9
80°-90°	520.0	1.9
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°	27124.6	100.0
0°-180°	27124.6	100.0



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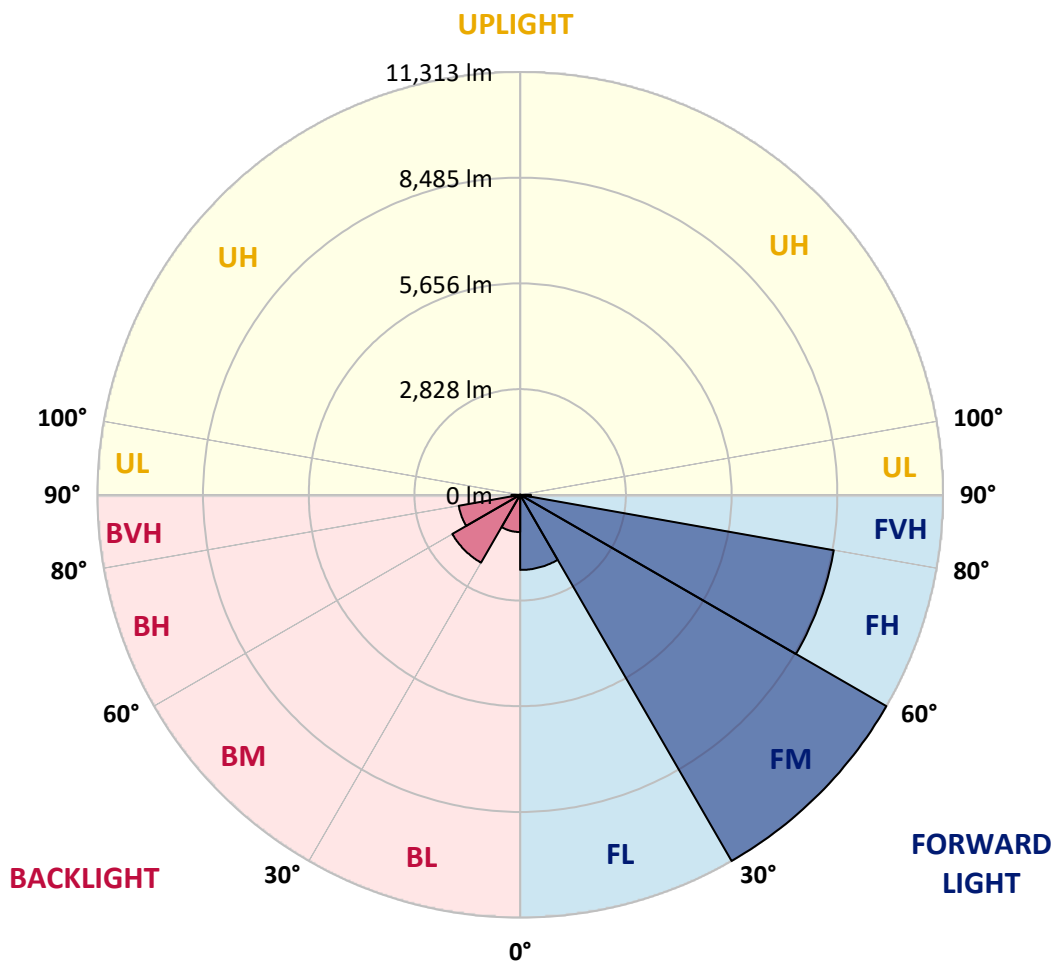
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2009.9	7.4			
FM	(30°-60°)	11313.0	41.7			
FH	(60°-80°)	8520.5	31.4			G4/12000
FVH	(80°-90°)	285.9	1.1			G3/500
BL	(0°-30°)	996.6	3.7	B2/1000		
BM	(30°-60°)	2095.9	7.7	B2/2500		
BH	(60°-80°)	1668.7	6.2	B3/2500		G3/2500
BVH	(80°-90°)	234.1	0.9			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	80°	85°
0°	3768.4	3768.4	3768.4	3768.4	3768.4	3768.4	3768.4	3768.4	3768.4	3768.4	3768.4
2.5°	4122.3	4098.2	4102.2	4095.6	4075.5	4040.8	4003.4	3935.3	3864.5	3827.1	3797.8
5°	4466.8	4460.1	4450.8	4429.4	4378.7	4306.5	4217.1	4096.9	3967.4	3899.3	3833.8
7.5°	4724.5	4720.5	4708.5	4695.1	4645.7	4558.9	4424.1	4253.1	4064.8	3971.4	3869.9
10°	4745.9	4752.6	4761.9	4798.0	4804.6	4757.9	4620.4	4413.4	4166.3	4046.1	3916.6
12.5°	4564.3	4579.0	4615.0	4707.2	4804.6	4862.1	4791.3	4581.6	4285.2	4139.6	3975.4
15°	4323.9	4331.9	4376.0	4502.8	4677.8	4855.4	4922.1	4767.2	4438.7	4259.8	4063.5
17.5°	4221.1	4225.1	4255.8	4339.9	4502.8	4756.6	4995.6	4968.9	4627.0	4409.4	4171.7
20°	4169.0	4178.3	4222.4	4305.2	4408.0	4629.7	5006.3	5186.5	4851.4	4596.3	4307.9
22.5°	4317.2	4313.2	4329.2	4370.6	4457.4	4591.0	4998.3	5410.9	5137.1	4836.7	4485.5
25°	4663.1	4677.8	4649.7	4603.0	4631.0	4724.5	5041.0	5653.9	5495.0	5145.2	4717.8
27.5°	5155.8	5141.1	5099.7	4990.2	4932.8	4972.9	5182.5	5915.7	5939.7	5551.1	5025.0
30°	5647.2	5635.2	5595.2	5461.6	5344.1	5310.7	5457.6	6216.1	6469.8	6038.5	5401.5
32.5°	6157.4	6144.0	6106.6	5973.1	5831.5	5754.1	5848.9	6563.3	7094.8	6620.7	5844.9
35°	6786.3	6760.9	6682.2	6496.5	6357.7	6297.6	6341.6	7000.0	7815.9	7309.8	6383.0
37.5°	7377.9	7416.6	7336.5	7080.1	6899.8	6878.5	6927.9	7532.8	8593.1	8080.3	7001.3
40°	7972.1	7978.8	7906.7	7697.0	7511.4	7476.7	7600.9	8179.1	9510.4	9001.7	7753.1
42.5°	8586.4	8599.7	8478.2	8284.6	8148.4	8155.1	8296.6	8936.2	10562.7	10087.3	8618.4
45°	9314.2	9334.2	9200.6	8946.9	8822.7	9072.5	9013.7	9785.5	11716.5	11321.2	9611.9
47.5°	10075.3	10106.0	10004.5	9766.8	9611.9	9955.1	9730.8	10727.0	12958.4	12644.5	10702.9
50°	10490.6	10534.7	10633.5	10616.1	10582.7	10525.3	10530.7	11736.5	14239.0	14022.6	11824.6
52.5°	10267.6	10266.3	10626.8	11064.8	11532.2	11566.9	11505.5	12800.8	15435.5	15370.0	12880.9
55°	9247.4	9316.8	9863.0	10710.9	11987.5	12784.8	12966.4	14020.0	16610.6	16686.7	13953.2
57.5°	7548.8	7606.2	8343.3	9525.1	11373.3	13508.5	15044.2	15792.0	17924.6	18279.8	15380.7
60°	5119.8	5189.2	5970.4	7389.9	9720.1	13105.2	17021.9	18954.1	19497.6	20305.5	17383.7
62.5°	3008.6	3071.3	3708.3	4661.7	6843.7	11231.7	17889.8	23453.0	21996.1	23362.2	20439.1
65°	2071.1	2113.9	2423.7	2901.7	3932.6	7564.8	16813.5	26559.0	25840.6	27149.2	23981.8
67.5°	1666.5	1661.2	1906.9	2232.7	2531.8	3900.6	12714.0	26207.8	29221.7	29767.9	25820.6
70°	1372.8	1367.4	1534.3	1804.1	2023.1	2196.7	6925.2	22116.3	28532.7	28754.4	24127.3
72.5°	1148.4	1153.8	1260.6	1460.9	1659.9	1654.5	3043.3	15558.3	22446.1	23979.1	19233.2
75°	969.5	972.1	1042.9	1184.5	1347.4	1332.7	1650.5	8428.8	13047.8	14114.8	10661.5
77.5°	825.3	827.9	873.3	952.1	1068.3	1062.9	1204.5	3641.5	5442.9	5376.2	3646.9
80°	735.8	735.8	757.2	771.8	835.9	811.9	893.4	1749.3	2300.8	2124.6	1455.5
82.5°	576.9	579.5	710.4	705.1	658.3	627.6	627.6	1030.9	1219.2	1127.0	852.0
85°	324.5	323.2	458.0	552.8	579.5	442.0	438.0	576.9	663.7	584.9	412.6
87.5°	138.9	141.5	212.3	245.7	328.5	275.1	271.1	297.8	337.8	292.4	191.0
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°	3768.4	3768.4	3768.4	3768.4	3768.4	3768.4	3768.4	3768.4	3768.4	3768.4	3768.4
2.5°	3769.7	3735.0	3658.9	3564.1	3478.6	3422.5	3371.8	3298.3	3302.4	3251.6	3214.2
5°	3767.1	3694.9	3518.7	3309.0	3107.4	2961.8	2852.3	2753.5	2729.5	2682.7	2654.7
7.5°	3769.7	3652.2	3355.8	3020.6	2770.9	2586.6	2493.1	2441.0	2429.0	2413.0	2414.3
10°	3779.1	3613.5	3176.8	2750.8	2489.1	2367.6	2344.9	2360.9	2379.6	2385.0	2386.3
12.5°	3800.4	3578.8	2980.5	2510.5	2312.8	2275.5	2314.2	2368.9	2405.0	2422.3	2421.0
15°	3848.5	3552.1	2792.2	2322.2	2215.4	2235.4	2307.5	2385.0	2437.0	2461.1	2462.4
17.5°	3900.6	3513.3	2598.6	2178.0	2143.3	2194.0	2283.5	2374.3	2438.4	2465.1	2470.4
20°	3968.7	3465.3	2395.6	2069.8	2075.2	2132.6	2216.7	2307.5	2378.3	2401.0	2411.7
22.5°	4058.2	3413.2	2218.0	1981.7	1997.7	2041.8	2107.2	2186.0	2247.4	2258.1	2267.4
25°	4178.3	3357.1	2076.5	1901.6	1908.2	1933.6	1977.7	2024.4	2067.1	2055.1	2064.5
27.5°	4339.9	3309.0	1971.0	1828.1	1816.1	1821.4	1844.1	1858.8	1881.5	1848.1	1852.1
30°	4529.5	3256.9	1889.5	1764.0	1730.6	1721.3	1726.6	1734.6	1752.0	1706.6	1699.9
32.5°	4749.9	3194.2	1813.4	1707.9	1661.2	1642.5	1645.2	1666.5	1733.3	1705.3	1690.6
35°	5006.3	3123.4	1733.3	1646.5	1614.5	1587.7	1585.1	1651.8	1850.8	1833.5	1820.1
37.5°	5306.7	3052.6	1653.2	1577.1	1579.7	1550.4	1541.0	1617.1	1873.5	1805.4	1796.1
40°	5688.6	3015.2	1585.1	1503.6	1537.0	1533.0	1514.3	1553.0	1724.0	1599.8	1583.7
42.5°	6161.4	3020.6	1534.3	1424.8	1486.3	1529.0	1499.6	1500.9	1562.4	1468.9	1454.2
45°	6744.9	3083.4	1498.3	1362.1	1428.8	1525.0	1494.3	1472.9	1478.2	1428.8	1420.8
47.5°	7425.9	3212.9	1472.9	1310.0	1374.1	1510.3	1492.9	1464.9	1452.9	1426.2	1419.5
50°	8183.1	3401.2	1454.2	1260.6	1324.7	1486.3	1494.3	1456.9	1443.5	1432.8	1428.8
52.5°	8926.9	3616.2	1426.2	1217.9	1286.0	1456.9	1498.3	1448.9	1434.2	1426.2	1422.2
55°	9756.2	3884.6	1383.4	1181.8	1253.9	1419.5	1498.3	1436.8	1420.8	1422.2	1420.8
57.5°	10876.5	4318.6	1332.7	1151.1	1215.2	1374.1	1472.9	1423.5	1403.5	1404.8	1406.1
60°	12627.2	5083.7	1271.3	1120.4	1167.1	1320.7	1438.2	1394.1	1374.1	1379.4	1380.8
62.5°	15201.8	6206.8	1191.1	1075.0	1116.4	1263.3	1390.1	1356.7	1336.7	1350.1	1350.1
65°	17877.8	7197.6	1092.3	1017.5	1062.9	1200.5	1330.0	1310.0	1290.0	1320.7	1319.3
67.5°	18597.6	6975.9	993.5	954.8	1009.5	1131.1	1257.9	1247.2	1236.5	1290.0	1287.3
70°	16521.1	5600.5	902.7	890.7	950.8	1056.3	1180.5	1180.5	1173.8	1213.8	1204.5
72.5°	12587.1	3971.4	815.9	822.6	884.0	974.8	1096.3	1105.7	1095.0	1115.0	1107.0
75°	6738.2	2272.8	729.1	747.8	801.2	892.0	1002.9	1012.2	1005.5	1004.2	1008.2
77.5°	2239.4	1111.0	638.3	667.7	714.4	806.6	905.4	920.1	904.0	901.4	900.0
80°	997.5	698.4	538.2	576.9	618.3	709.1	802.6	814.6	797.2	821.2	790.5
82.5°	641.0	459.4	431.3	474.1	514.1	611.6	699.7	702.4	686.4	797.2	679.7
85°	311.1	284.4	324.5	363.2	397.9	480.7	579.5	580.9	540.8	492.7	475.4
87.5°	154.9	165.6	216.3	251.0	268.4	329.8	422.0	414.0	396.6	360.5	332.5
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)