

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: P300442

Luminaire Tested: **GLNA-AF-05-LED-E1-AFL-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300442
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24165)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-05-LED-E1-AFL-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Automotive Frontline OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20037.8 lumens
Efficiency: N/A
Efficacy: 123.7 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B2 - U0 - G2

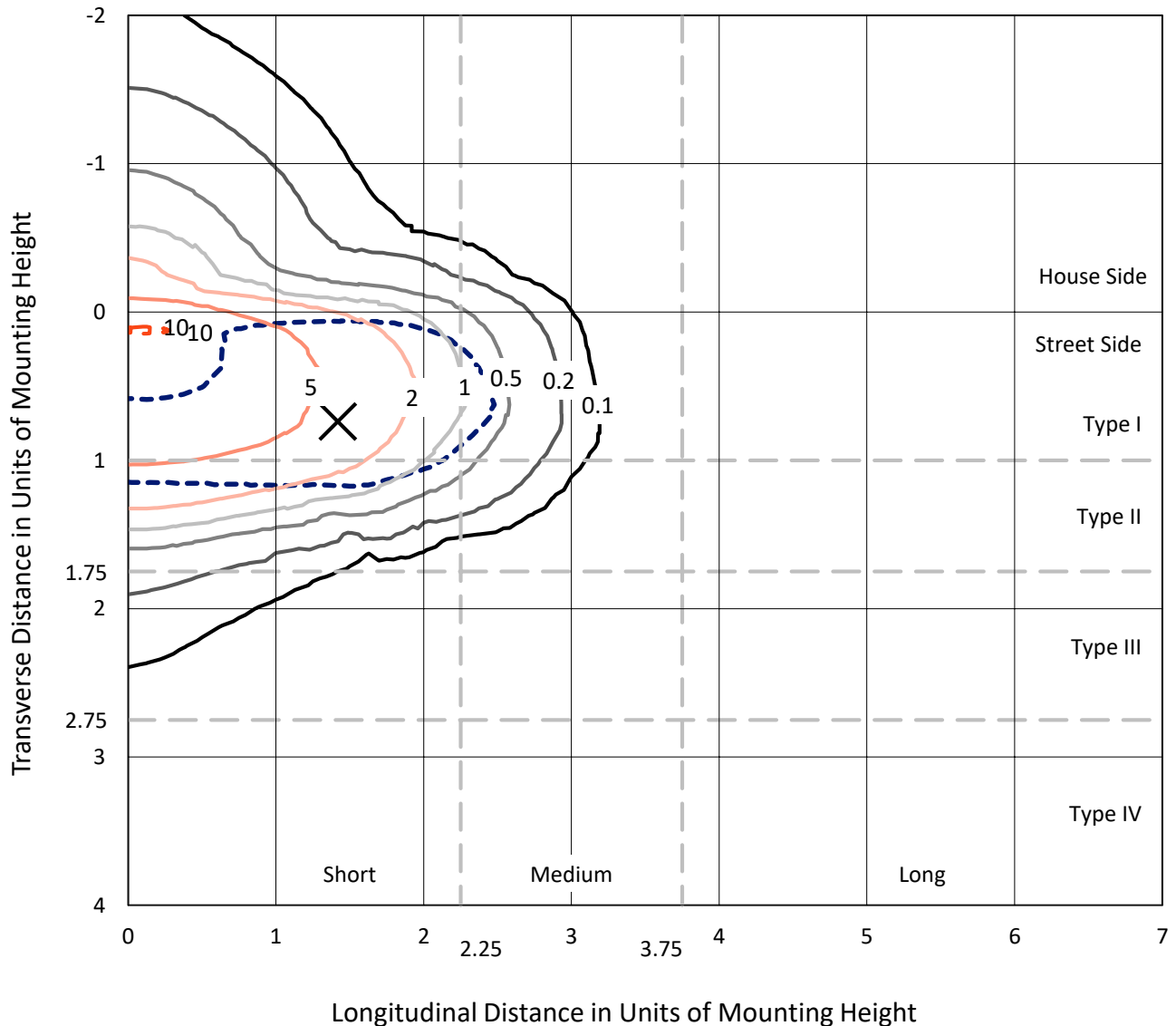
Input Watts (W): 162
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

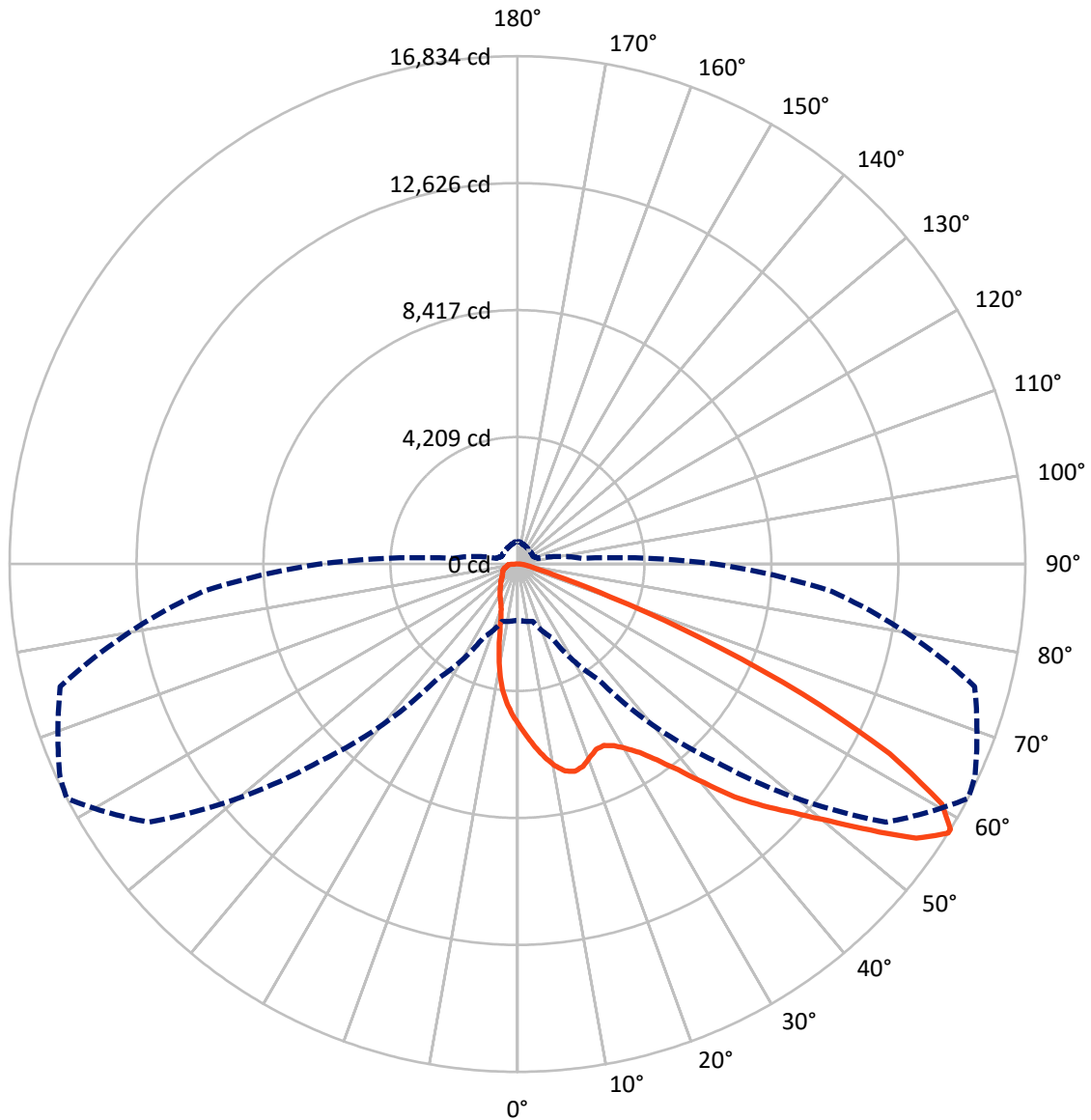
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.4 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 62.5-Deg Lateral - - - Horizontal Cone Through 58-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3055.8	0.0	3055.8
	% Fixture	15.3	0.0	15.3
Street Side	Lumens	16982.0	0.0	16982.0
	% Fixture	84.7	0.0	84.7
Total	Lumens	20037.8	0.0	20037.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	476.0	2.4
10°-20°	1216.8	6.1
20°-30°	1967.0	9.8
30°-40°	3122.6	15.6
40°-50°	4569.0	22.8
50°-60°	4778.8	23.8
60°-70°	2823.3	14.1
70°-80°	795.3	4.0
80°-90°	288.7	1.4
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°	20037.8	100.0
0°-180°	20037.8	100.0

Coefficient of Utilization



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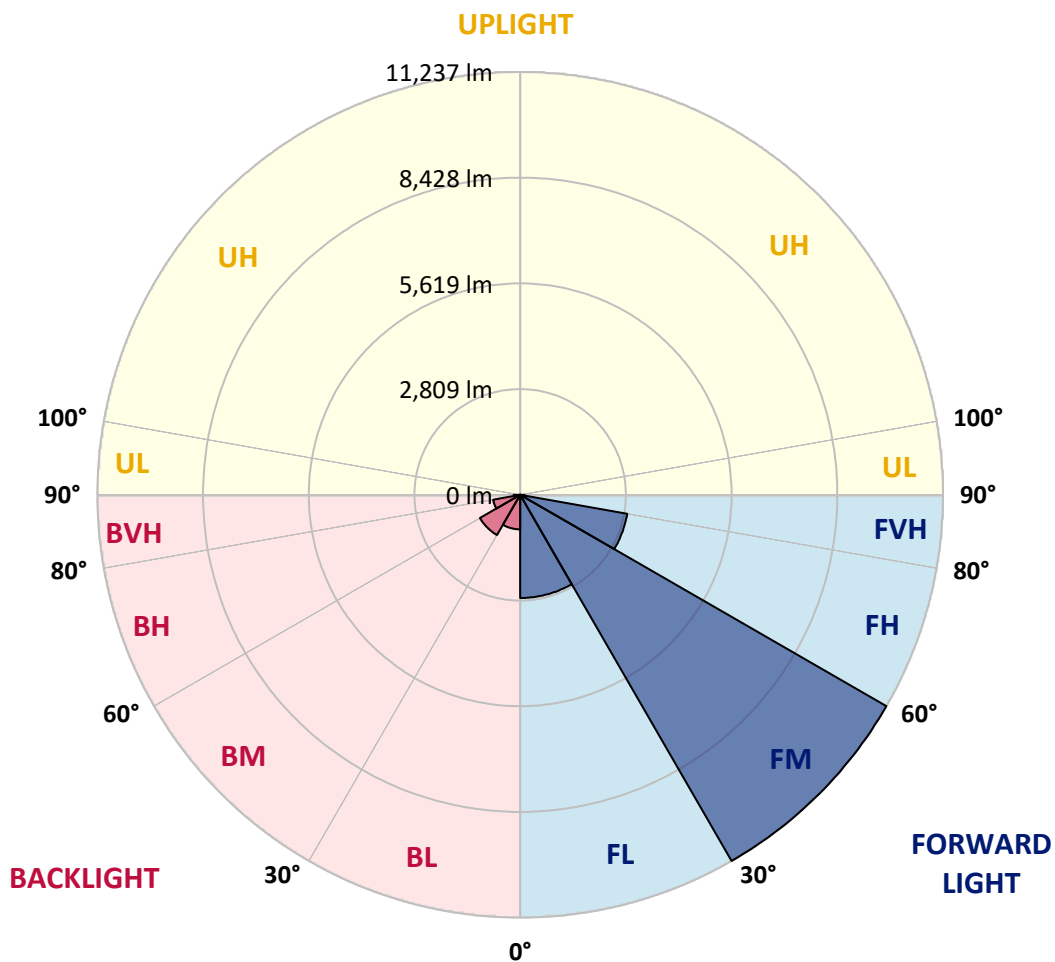
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2741.4	13.7			
FM	(30°-60°)	11237.1	56.1			
FH	(60°-80°)	2889.5	14.4			G2/5000
FVH	(80°-90°)	113.9	0.6			G2/225
BL	(0°-30°)	918.4	4.6	B2/1000		
BM	(30°-60°)	1233.4	6.2	B2/2500		
BH	(60°-80°)	729.2	3.6	B2/1000		G2/1000
BVH	(80°-90°)	174.8	0.9			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	62.5°	65°	75°	85°
0°	5322.6	5322.6	5322.6	5322.6	5322.6	5322.6	5322.6	5322.6	5322.6	5322.6	5322.6
2.5°	6082.2	6033.1	6002.0	5974.6	5938.8	5862.4	5759.5	5694.4	5661.4	5549.1	5416.1
5°	6678.5	6635.1	6603.1	6566.3	6502.1	6382.3	6216.2	6084.1	6019.0	5794.4	5528.3
7.5°	6538.9	6556.8	6612.5	6709.7	6792.7	6776.7	6628.5	6460.6	6374.7	6062.4	5658.5
10°	5697.2	5728.4	5824.6	6052.0	6420.0	6797.4	6912.5	6796.5	6709.7	6327.5	5792.5
12.5°	5528.3	5527.4	5534.9	5595.3	5814.2	6345.5	6922.0	7039.0	6987.1	6580.4	5929.4
15°	5597.2	5599.1	5593.4	5618.9	5686.9	5897.3	6633.2	7132.4	7169.2	6835.2	6070.9
17.5°	5778.4	5773.7	5752.0	5752.0	5776.5	5858.6	6293.6	7045.6	7215.4	7060.7	6195.4
20°	6082.2	6060.5	6002.9	5950.1	5923.7	5968.0	6153.9	6845.6	7135.2	7257.9	6298.3
22.5°	6450.2	6433.2	6339.8	6226.6	6135.0	6134.1	6225.6	6671.0	6996.5	7443.8	6385.1
25°	6925.8	6898.4	6759.7	6578.5	6418.1	6356.8	6382.3	6662.5	6921.0	7645.7	6462.5
27.5°	7484.3	7434.3	7270.2	7008.8	6772.9	6649.3	6612.5	6816.3	6989.9	7895.7	6570.0
30°	8161.8	8104.3	7893.8	7553.2	7220.1	7017.3	6939.0	7089.0	7218.3	8200.5	6742.7
32.5°	8932.7	8849.7	8606.2	8230.7	7792.9	7483.4	7356.0	7449.4	7552.3	8567.6	6958.8
35°	9998.0	9898.9	9547.0	9029.0	8534.5	8109.0	7905.2	7973.1	8073.1	9114.8	7271.1
37.5°	10724.5	10680.2	10446.2	9959.3	9421.5	8931.8	8616.6	8656.2	8712.9	9798.9	7671.2
40°	10717.9	10735.9	10740.6	10745.3	10379.2	9910.2	9571.5	9530.0	9518.7	10550.0	8126.0
42.5°	10181.0	10254.6	10492.4	10974.6	11197.3	10982.1	10671.7	10551.9	10492.4	11435.0	8608.1
45°	9359.2	9398.8	9844.2	10785.9	11616.2	12043.6	11808.7	11431.3	11323.7	12248.4	9008.2
47.5°	8935.5	8978.9	9259.2	10285.8	11611.5	12901.3	13037.2	12318.2	12125.7	12956.1	9353.5
50°	7926.9	8017.5	8370.3	9415.8	11187.8	13295.7	14321.4	13375.0	12976.8	13644.9	9699.8
52.5°	6074.7	6214.3	6609.7	7985.4	10113.1	13100.4	15348.9	14656.4	14094.0	14358.2	9997.1
55°	3831.8	3935.6	4267.7	5639.7	8090.1	12084.2	15738.6	16042.5	15542.4	15033.8	10254.6
57.5°	2083.4	2129.6	2254.2	3113.8	5262.3	9837.6	15170.6	16831.3	16623.7	15607.5	10449.0
58°	1864.5	1895.6	1973.0	2698.6	4666.9	9223.3	14918.7	16834.1	16730.3	15691.5	10464.1
60°	1383.3	1367.2	1298.3	1539.9	2597.6	6371.9	13395.8	16160.4	16465.2	15794.3	10390.5
62.5°	1215.3	1176.6	1036.0	1020.0	1263.4	2935.4	10249.9	13843.0	14563.0	15207.4	9943.3
65°	1141.7	1100.2	919.0	860.5	911.5	1241.7	6037.9	10382.0	11285.0	13427.8	8799.7
67.5°	1087.0	1033.2	844.5	764.3	768.1	820.9	2420.2	6538.9	7555.1	10195.2	6844.6
70°	1034.1	975.6	781.3	688.8	667.1	649.2	962.4	3273.2	4195.1	6439.8	4364.0
72.5°	977.5	920.0	725.6	629.4	586.9	527.5	628.4	1338.9	1870.1	3046.8	1979.6
75°	895.4	843.5	669.9	576.5	516.1	436.9	474.6	699.2	838.8	1213.4	953.9
77.5°	794.5	752.0	607.7	533.1	457.6	354.8	365.2	485.0	537.8	694.5	567.1
80°	570.9	586.0	540.7	479.3	407.6	287.8	280.2	353.8	382.1	446.3	368.9
82.5°	401.0	409.5	447.2	391.6	336.9	226.5	206.6	249.1	266.1	293.4	199.1
85°	276.5	267.0	306.7	272.7	243.4	151.0	141.5	168.9	179.3	182.1	102.8
87.5°	166.1	166.1	177.4	146.3	131.2	78.3	76.4	96.2	102.8	98.1	56.6
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°	5322.6	5322.6	5322.6	5322.6	5322.6	5322.6	5322.6	5322.6	5322.6	5322.6	5322.6
2.5°	5336.8	5269.8	5127.3	5013.2	4868.8	4718.8	4634.8	4545.1	4483.8	4439.5	4510.2
5°	5377.4	5240.5	4946.2	4666.9	4358.3	4037.5	3794.1	3567.6	3410.0	3311.9	3404.4
7.5°	5441.5	5231.1	4762.2	4284.7	3730.8	3196.8	2719.3	2420.2	2245.7	2159.8	2213.6
10°	5515.1	5216.0	4546.1	3766.7	2974.1	2301.4	1944.7	1823.9	1784.3	1768.2	1775.8
12.5°	5576.5	5183.9	4280.9	3140.2	2233.4	1817.3	1714.5	1711.6	1720.1	1722.0	1724.8
15°	5619.9	5136.8	3887.5	2487.2	1786.2	1656.0	1650.3	1667.3	1683.3	1689.9	1693.7
17.5°	5649.1	5039.6	3443.1	1966.4	1600.3	1577.6	1590.8	1612.5	1629.5	1634.3	1638.0
20°	5646.3	4897.1	2913.7	1639.9	1499.3	1499.3	1522.0	1539.0	1539.9	1534.2	1537.1
22.5°	5617.0	4701.8	2400.4	1466.3	1409.7	1425.7	1448.4	1432.3	1366.3	1322.9	1325.7
25°	5568.0	4468.7	1960.7	1355.9	1326.6	1355.0	1348.4	1227.6	1133.2	1090.8	1090.8
27.5°	5524.6	4193.2	1622.9	1259.7	1243.6	1278.5	1161.5	1052.1	1012.4	992.6	986.0
30°	5493.4	3896.0	1397.4	1167.2	1165.3	1139.8	1007.7	977.5	970.9	954.9	949.2
32.5°	5501.0	3595.0	1253.1	1086.0	1092.6	975.6	934.1	940.7	935.1	918.1	910.5
35°	5563.2	3309.1	1158.7	1012.4	992.6	881.3	890.7	903.0	901.1	877.5	870.0
37.5°	5674.6	3038.3	1096.4	951.1	866.2	834.1	849.2	868.1	863.4	847.3	841.7
40°	5791.6	2783.5	1045.5	903.0	791.6	802.0	815.2	825.6	830.3	835.1	831.3
42.5°	5905.8	2517.4	983.2	853.9	760.5	771.8	777.5	787.9	813.4	831.3	830.3
45°	5973.7	2267.4	919.0	784.1	736.0	742.6	738.8	759.6	790.7	820.0	820.9
47.5°	6049.2	2073.0	868.1	719.9	712.4	717.1	705.8	726.5	754.9	790.7	794.5
50°	6140.7	1956.9	827.5	669.0	680.3	680.3	677.5	696.3	736.0	777.5	785.0
52.5°	6244.5	1934.3	793.5	632.2	648.2	647.3	650.1	678.4	721.8	762.4	769.0
55°	6370.9	1995.6	756.7	604.8	617.1	620.9	630.3	662.4	699.2	745.4	748.2
57.5°	6518.1	2120.2	727.5	583.1	588.8	601.0	616.1	645.4	685.0	736.0	738.8
58°	6542.7	2146.6	722.8	581.2	583.1	597.3	614.3	642.6	682.2	737.9	740.7
60°	6543.6	2234.4	712.4	572.7	561.4	585.0	603.9	632.2	677.5	744.5	751.1
62.5°	6311.5	2233.4	704.8	560.5	538.8	568.0	589.7	622.8	672.8	760.5	773.7
65°	5557.6	2029.6	669.0	541.6	520.8	552.9	577.5	616.1	686.0	830.3	838.8
67.5°	4347.0	1663.5	602.0	515.2	497.3	537.8	569.9	615.2	700.1	846.4	852.0
70°	2874.1	1244.6	528.4	485.0	472.7	519.9	573.7	647.3	684.1	812.4	797.3
72.5°	1491.8	873.7	469.0	447.2	444.4	503.9	628.4	643.5	668.0	764.3	745.4
75°	783.2	606.7	417.1	405.7	410.4	500.1	741.6	626.5	647.3	731.3	767.1
77.5°	479.3	489.7	372.7	368.0	377.4	488.8	740.7	604.8	617.1	672.8	712.4
80°	320.8	397.2	338.7	339.7	346.3	447.2	665.2	570.9	580.3	636.0	676.5
82.5°	202.9	234.9	307.6	323.6	315.2	368.9	565.2	519.9	533.1	727.5	769.0
85°	102.8	147.2	267.0	311.4	284.0	258.5	458.6	455.7	462.3	524.6	548.2
87.5°	47.2	81.1	208.5	271.7	214.2	161.3	333.1	337.8	364.2	372.7	372.7
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)