

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: P299954

Luminaire Tested: **GLNA-AF-04-LED-E1-5WQ-7030-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299954
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24143)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-04-LED-E1-5WQ-7030-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 3000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16059.6 lumens
Efficiency: N/A
Efficacy: 124.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B4 - U0 - G2

Input Watts (W): 129
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

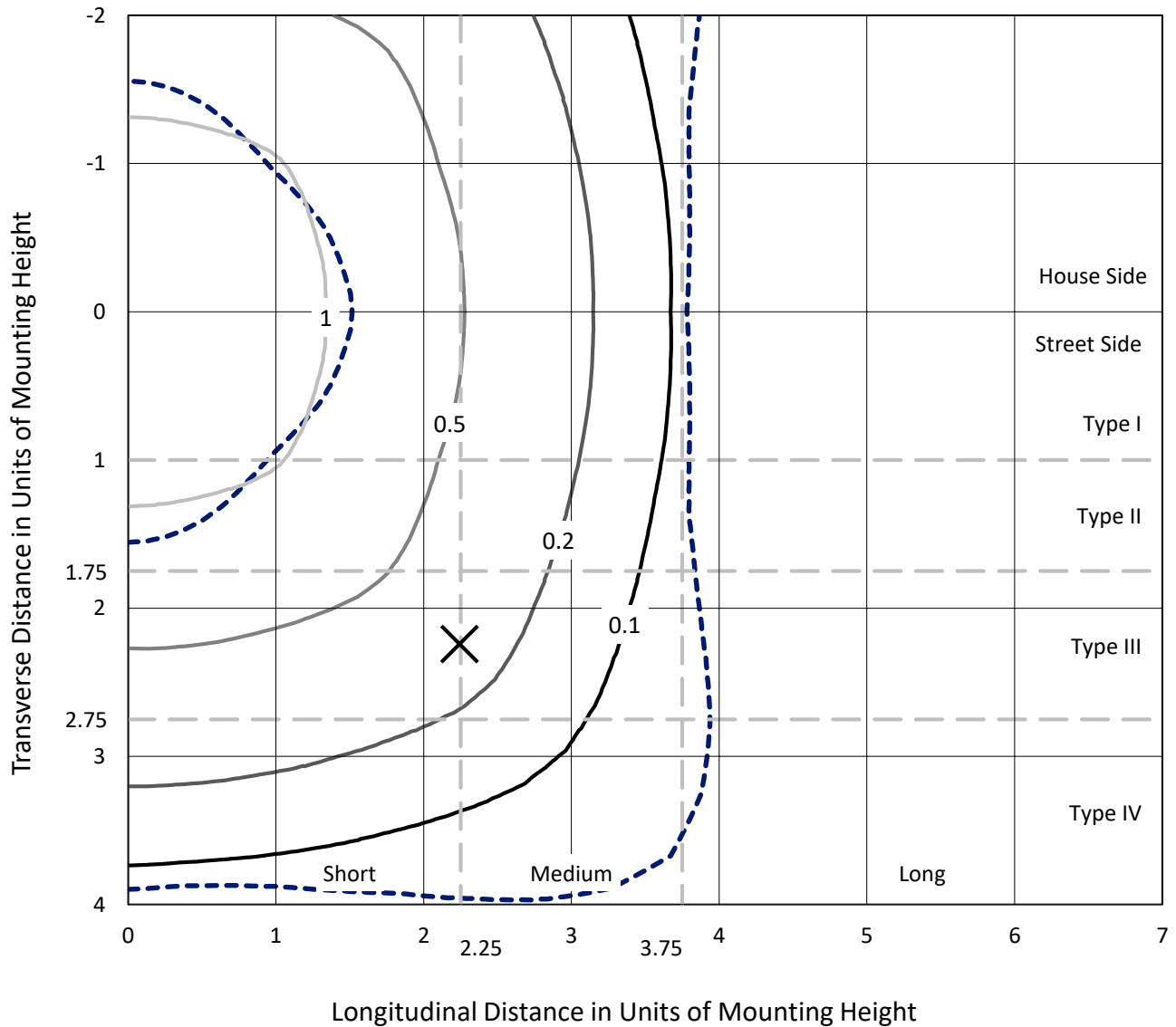


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

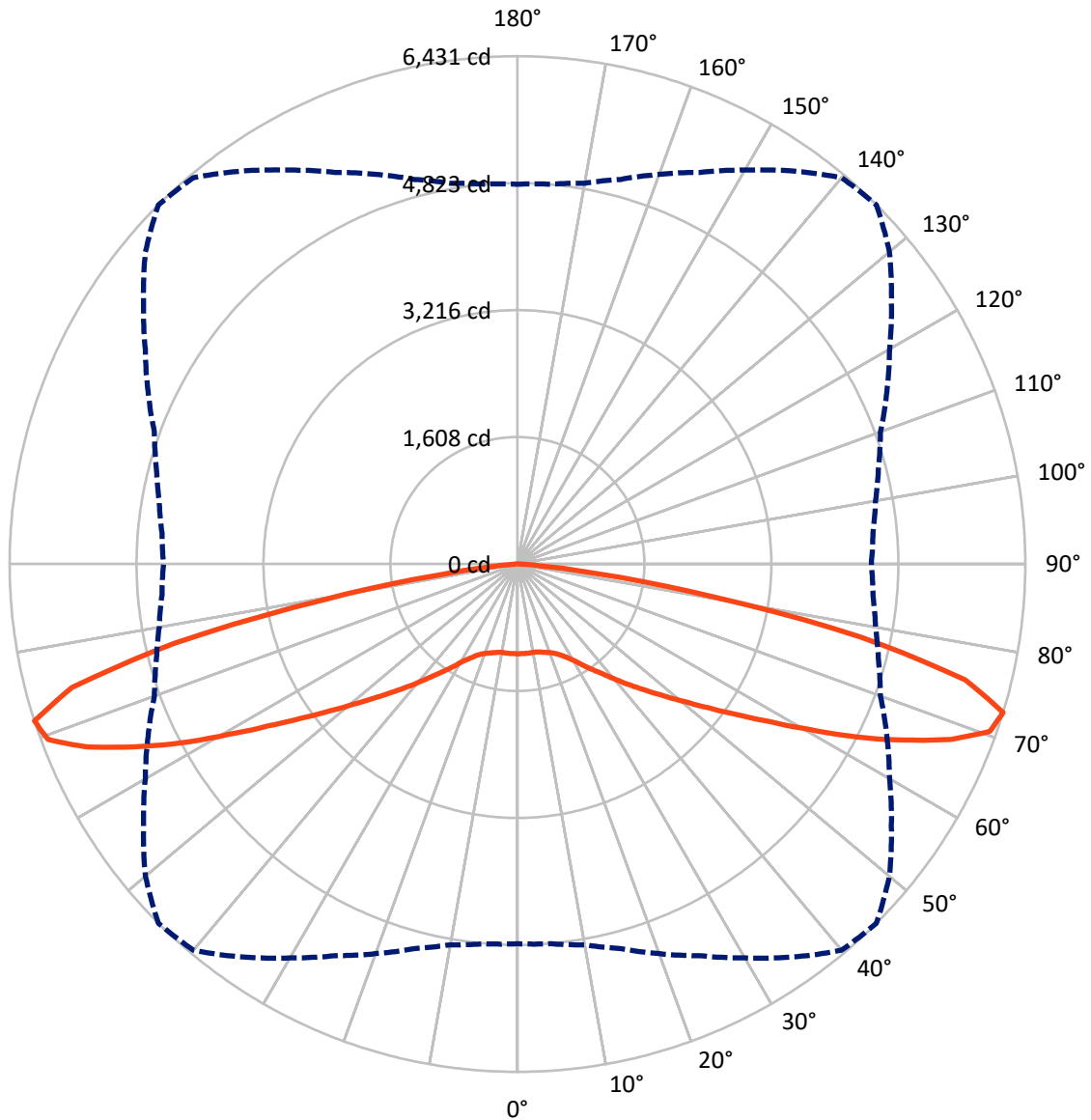


Based on 25 foot mounting height. Maximum calculated value = 1.8 fc
 Type V - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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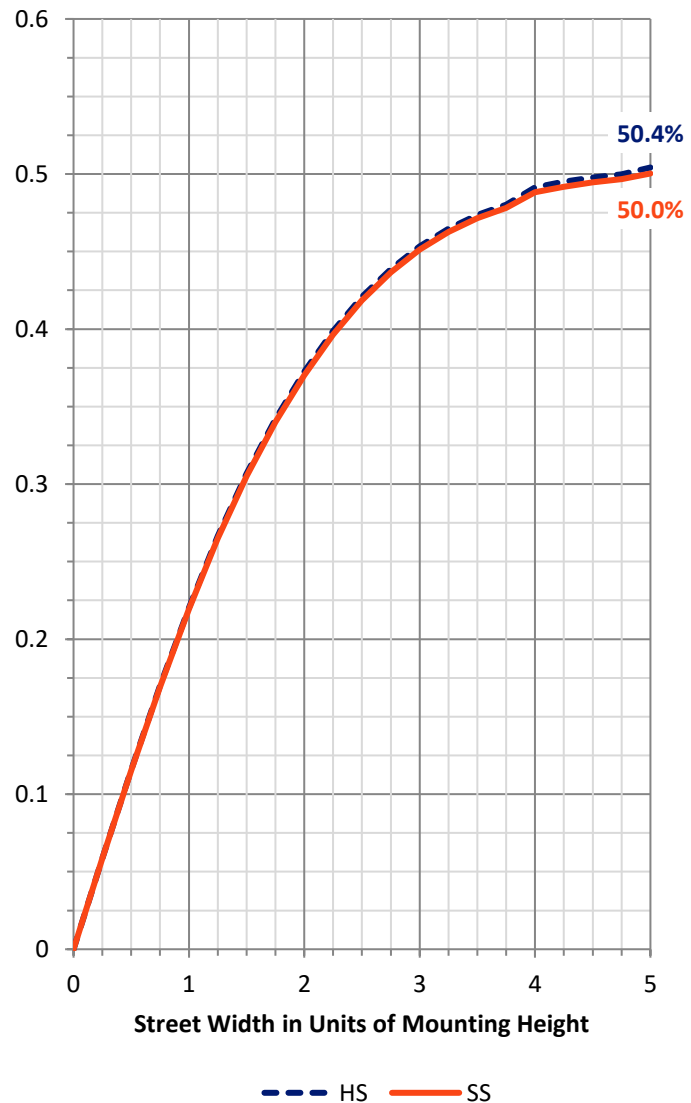
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8029.8	0.0	8029.8
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	8029.8	0.0	8029.8
	% Fixture	50.0	0.0	50.0
Total	Lumens	16059.6	0.0	16059.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.6	0.7
10°-20°	329.8	2.1
20°-30°	602.7	3.8
30°-40°	1039.2	6.5
40°-50°	1776.5	11.1
50°-60°	2879.4	17.9
60°-70°	4776.9	29.7
70°-80°	4207.3	26.2
80°-90°	339.2	2.1
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°	16059.6	100.0
0°-180°	16059.6	100.0



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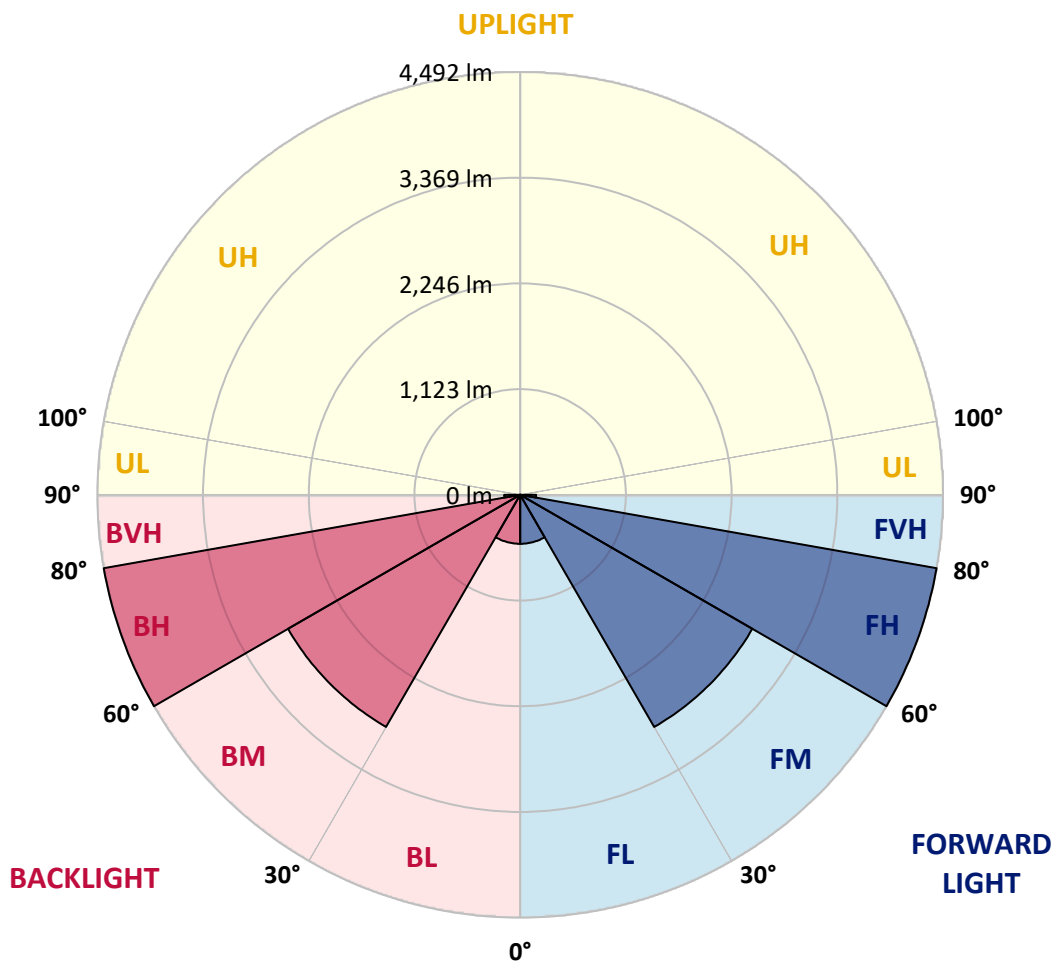
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	520.6	3.2			
FM	(30°-60°)	2847.5	17.7			
FH	(60°-80°)	4492.1	28.0			G2/5000
FVH	(80°-90°)	169.6	1.1			G2/225
BL	(0°-30°)	520.6	3.2	B2/1000		
BM	(30°-60°)	2847.5	17.7	B3/5000		
BH	(60°-80°)	4492.1	28.0	B4/5000		G2/5000
BVH	(80°-90°)	169.6	1.1			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G2

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1137.3	1137.3	1137.3	1137.3	1137.3	1137.3	1137.3	1137.3	1137.3	1137.3	1137.3
2.5°	1137.3	1138.0	1138.7	1138.0	1138.0	1137.3	1136.5	1137.3	1136.5	1135.1	1135.8
5°	1141.0	1142.4	1142.4	1141.0	1141.7	1141.0	1139.5	1140.2	1138.7	1136.5	1136.5
7.5°	1145.4	1146.1	1146.1	1144.6	1145.4	1143.9	1142.4	1141.7	1140.2	1137.3	1135.1
10°	1152.0	1152.7	1152.0	1150.5	1150.5	1148.3	1144.6	1143.2	1140.2	1135.8	1133.6
12.5°	1159.4	1160.1	1159.4	1157.9	1157.2	1153.5	1150.5	1148.3	1146.1	1142.4	1138.7
15°	1169.7	1171.2	1169.7	1166.7	1164.5	1161.6	1160.1	1160.8	1161.6	1158.6	1154.9
17.5°	1188.8	1189.6	1187.4	1180.7	1177.8	1174.8	1174.8	1176.3	1178.5	1177.0	1173.4
20°	1224.2	1222.0	1216.8	1208.7	1205.0	1199.9	1199.1	1199.9	1199.9	1199.1	1196.2
22.5°	1268.4	1266.9	1260.3	1250.0	1244.8	1241.9	1237.4	1233.8	1233.0	1230.8	1227.9
25°	1321.4	1320.7	1312.6	1303.7	1300.1	1296.4	1292.7	1287.5	1283.1	1278.0	1275.0
27.5°	1389.2	1386.2	1374.4	1370.0	1364.9	1362.7	1357.5	1351.6	1347.9	1341.3	1337.6
30°	1463.6	1463.6	1454.0	1452.5	1452.5	1447.4	1441.5	1431.2	1424.5	1417.9	1415.7
32.5°	1538.0	1538.7	1529.1	1532.1	1534.3	1538.0	1539.4	1535.8	1531.3	1530.6	1526.2
35°	1645.5	1642.6	1633.0	1635.2	1634.5	1633.7	1633.7	1641.8	1643.3	1644.8	1635.9
37.5°	1778.8	1778.8	1769.2	1769.2	1764.8	1760.4	1754.5	1759.7	1767.8	1770.0	1764.1
40°	1931.3	1936.4	1924.7	1923.9	1925.4	1911.4	1904.8	1912.9	1918.0	1926.9	1920.2
42.5°	2111.0	2107.3	2095.5	2094.1	2086.0	2081.6	2075.7	2082.3	2090.4	2096.3	2098.5
45°	2283.4	2280.4	2267.2	2267.2	2259.1	2255.4	2258.3	2269.4	2273.1	2281.2	2289.3
47.5°	2453.5	2449.8	2441.0	2444.7	2445.4	2452.1	2461.6	2471.9	2482.2	2493.3	2497.0
50°	2627.4	2628.1	2618.5	2627.4	2638.4	2656.8	2682.6	2699.5	2720.9	2734.9	2739.3
52.5°	2785.7	2788.7	2799.0	2819.6	2841.7	2877.8	2922.0	2963.2	2998.6	3022.2	3020.7
55°	2975.8	2980.2	3005.2	3040.6	3076.7	3131.2	3196.7	3269.6	3328.6	3362.5	3341.1
57.5°	3218.8	3228.4	3256.4	3304.3	3358.0	3428.7	3518.6	3628.4	3719.7	3765.4	3730.7
60°	3552.5	3558.4	3592.3	3645.3	3710.1	3797.8	3917.8	4065.1	4194.0	4254.4	4214.7
62.5°	3992.2	4003.3	4030.5	4084.3	4150.6	4250.0	4396.6	4580.7	4741.3	4825.3	4735.4
65°	4517.4	4552.8	4575.6	4630.1	4692.0	4797.3	4950.5	5147.9	5320.3	5375.5	5271.7
67.5°	5037.4	5068.4	5108.1	5170.7	5233.3	5351.9	5494.1	5685.6	5874.9	5925.0	5763.7
70°	5265.0	5282.7	5344.6	5430.0	5550.1	5690.0	5854.3	6069.4	6303.6	6344.8	6140.1
72.5°	4809.1	4826.8	4896.0	5041.1	5250.3	5472.7	5759.3	6075.3	6384.6	6431.0	6148.9
75°	3637.2	3608.5	3710.9	3903.1	4185.2	4495.3	4896.0	5349.0	5796.1	5854.3	5517.7
77.5°	1879.7	1876.1	1953.4	2192.0	2528.7	2881.5	3322.7	3834.6	4272.1	4448.9	4174.9
80°	529.6	535.5	572.3	690.9	887.6	1142.4	1487.1	1966.6	2324.6	2507.3	2354.1
82.5°	207.7	223.9	237.9	260.0	285.8	323.4	431.6	642.3	861.8	1029.7	843.4
85°	74.4	79.5	112.7	133.3	135.5	142.9	162.8	190.0	229.1	273.3	224.7
87.5°	28.0	30.9	36.1	59.7	58.9	53.8	65.6	68.5	51.6	47.1	58.2
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):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1137.3	1137.3	1137.3	1137.3	1137.3	1137.3	1137.3	1137.3
2.5°	1134.3	1135.1	1135.1	1135.8	1136.5	1136.5	1138.0	1138.0
5°	1135.1	1135.1	1133.6	1134.3	1133.6	1133.6	1134.3	1134.3
7.5°	1133.6	1132.8	1131.4	1130.6	1129.2	1129.2	1129.2	1129.2
10°	1131.4	1130.6	1129.2	1128.4	1127.7	1127.7	1127.7	1127.7
12.5°	1137.3	1135.1	1133.6	1132.8	1132.8	1132.8	1132.8	1132.8
15°	1152.7	1147.6	1143.9	1143.9	1144.6	1146.1	1146.1	1147.6
17.5°	1171.9	1166.0	1162.3	1159.4	1160.8	1163.0	1164.5	1166.0
20°	1194.7	1191.8	1186.6	1183.7	1183.7	1186.6	1188.1	1188.8
22.5°	1226.4	1224.2	1222.0	1218.3	1218.3	1219.8	1222.7	1222.7
25°	1273.5	1272.1	1270.6	1267.6	1266.9	1266.9	1268.4	1269.9
27.5°	1332.5	1333.2	1331.7	1331.0	1328.8	1328.0	1330.3	1329.5
30°	1411.3	1415.0	1418.6	1415.7	1412.0	1409.8	1407.6	1404.6
32.5°	1518.1	1513.7	1510.7	1505.6	1498.9	1493.0	1488.6	1483.5
35°	1619.0	1611.6	1608.7	1613.1	1612.4	1608.7	1603.5	1599.1
37.5°	1742.7	1741.3	1742.7	1750.8	1749.4	1753.0	1742.7	1742.0
40°	1898.9	1900.4	1910.7	1920.2	1925.4	1930.6	1924.7	1918.8
42.5°	2080.1	2079.3	2083.0	2096.3	2105.1	2111.0	2098.5	2097.0
45°	2271.6	2266.4	2269.4	2280.4	2289.3	2295.9	2281.9	2281.9
47.5°	2482.2	2473.4	2463.8	2476.4	2481.5	2485.9	2474.9	2471.2
50°	2717.2	2698.8	2678.2	2683.3	2683.3	2681.9	2667.9	2667.1
52.5°	2986.8	2952.9	2915.4	2901.4	2893.3	2884.4	2860.1	2848.3
55°	3296.9	3246.1	3187.1	3151.1	3131.9	3107.6	3067.1	3056.0
57.5°	3659.3	3579.7	3478.1	3433.9	3391.2	3351.4	3306.5	3294.0
60°	4088.7	3971.6	3836.8	3755.0	3708.6	3670.3	3623.9	3621.7
62.5°	4567.5	4382.6	4230.1	4156.5	4122.6	4088.7	4044.5	4050.4
65°	5054.4	4861.4	4718.5	4658.8	4627.1	4599.2	4555.0	4561.6
67.5°	5534.6	5357.1	5200.2	5139.1	5103.7	5068.4	5028.6	5035.2
70°	5879.3	5659.1	5482.3	5346.8	5262.1	5166.3	5104.4	5089.0
72.5°	5780.6	5441.1	5160.4	4891.6	4734.0	4605.8	4518.9	4481.3
75°	5002.8	4538.8	4177.8	3847.9	3662.2	3511.2	3401.5	3333.0
77.5°	3715.3	3193.8	2767.3	2387.2	2086.7	1884.9	1742.7	1650.7
80°	2033.7	1546.8	1130.6	794.8	584.1	485.4	428.7	401.4
82.5°	633.5	408.8	301.3	260.0	241.6	231.3	214.3	187.1
85°	201.8	176.8	164.3	156.9	149.5	130.4	89.9	81.8
87.5°	78.1	80.3	79.5	75.1	76.6	55.2	44.2	39.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)