

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: P299401

Luminaire Tested: **GLNA-AF-02-LED-E1-5NQ-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299401
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24141)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-02-LED-E1-5NQ-7027-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8787.3 lumens
Efficiency: N/A
Efficacy: 103.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B3 - U0 - G1

Input Watts (W): 85
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

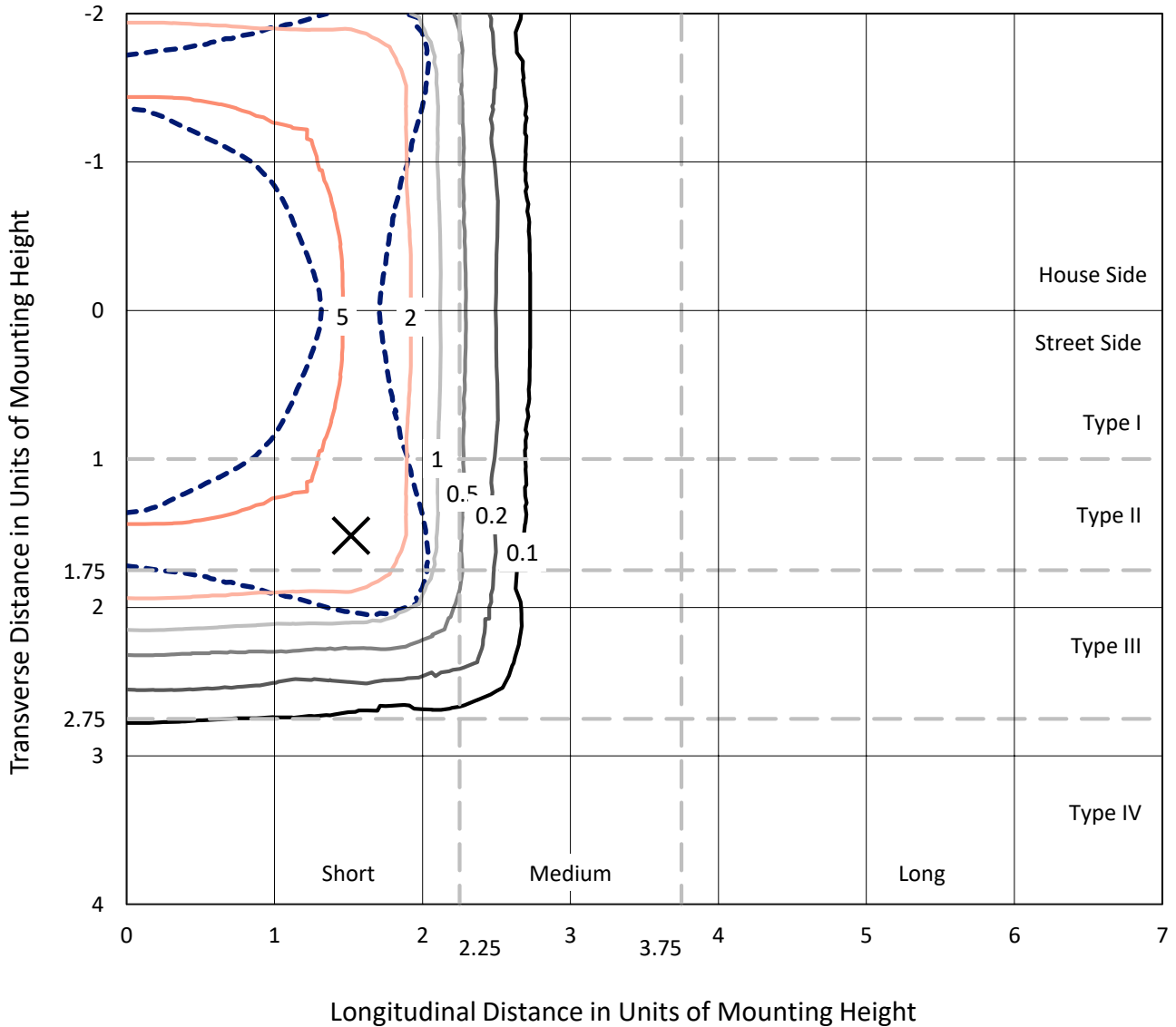


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Iso-Footcandle Lines of Horizontal Illumination

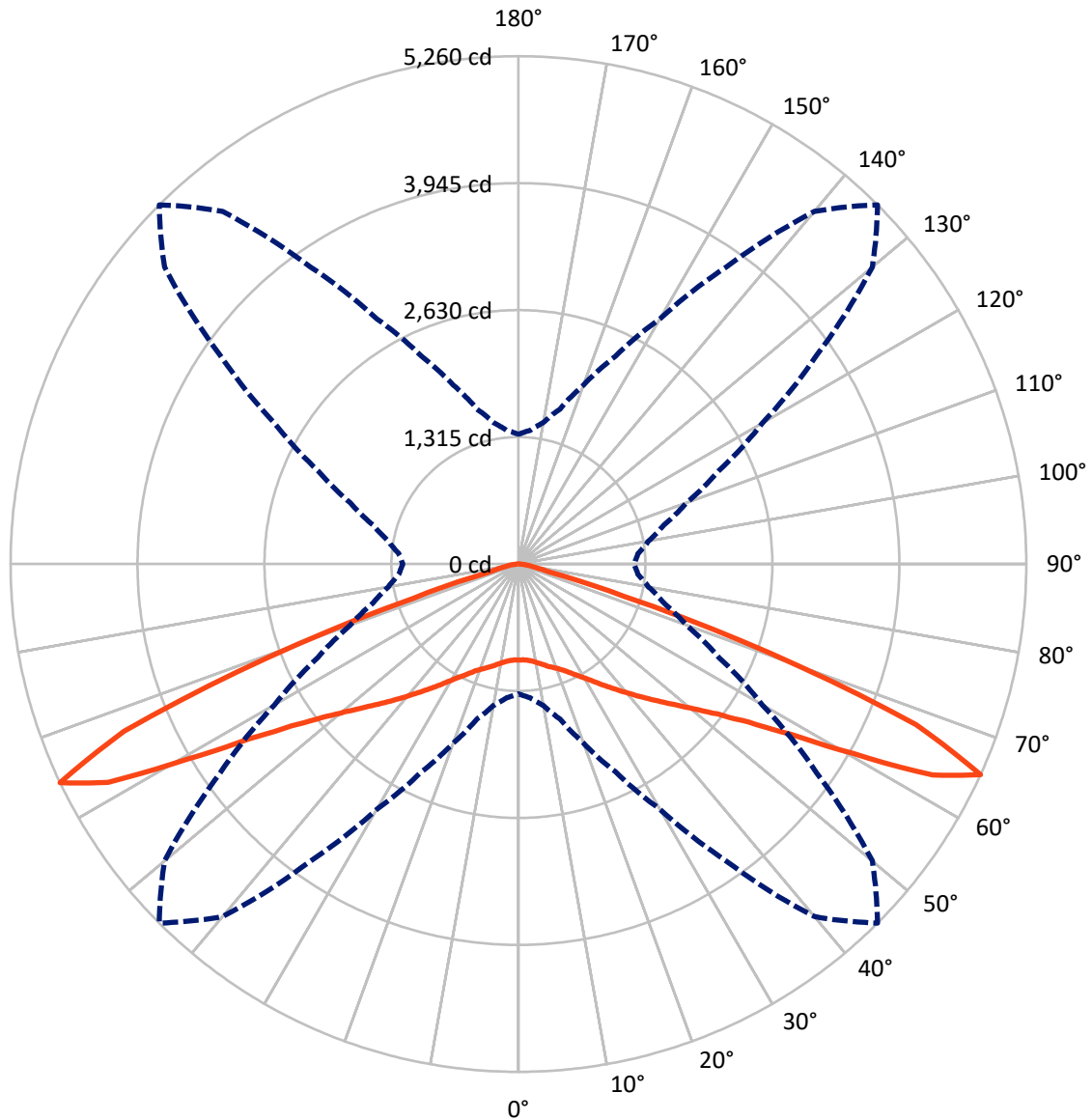
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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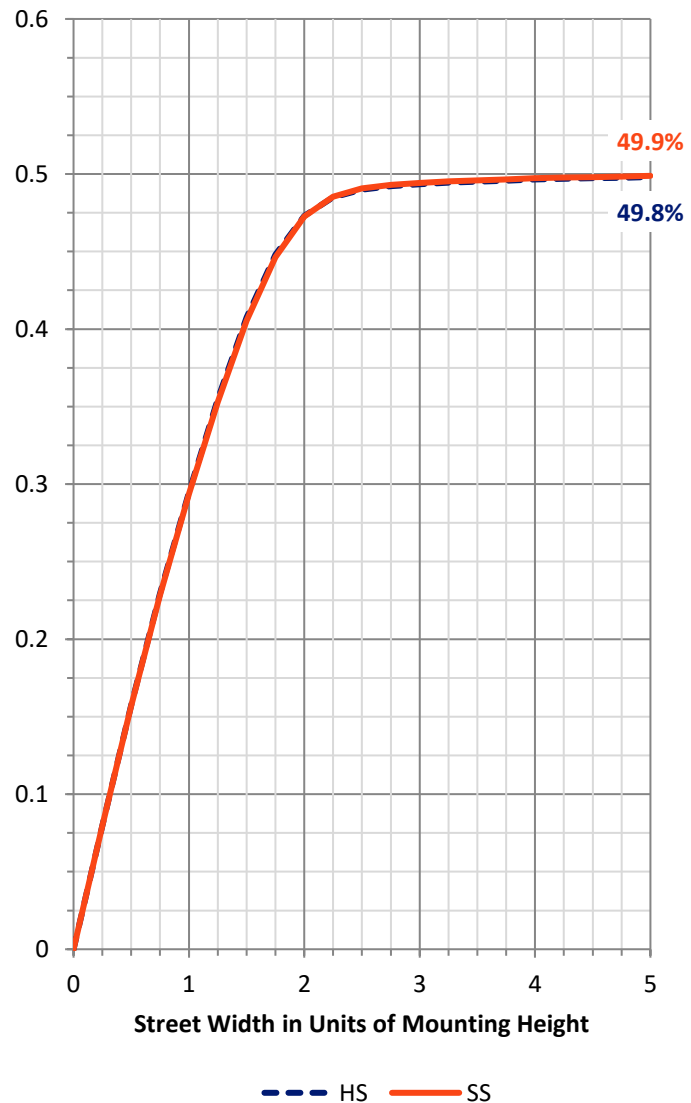
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4393.7	0.0	4393.7
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	4393.7	0.0	4393.7
	% Fixture	50.0	0.0	50.0
Total	Lumens	8787.3	0.0	8787.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.9	1.1
10°-20°	310.8	3.5
20°-30°	581.2	6.6
30°-40°	982.9	11.2
40°-50°	1607.2	18.3
50°-60°	2555.6	29.1
60°-70°	2310.1	26.3
70°-80°	292.4	3.3
80°-90°	50.3	0.6
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°	8787.3	100.0
0°-180°	8787.3	100.0



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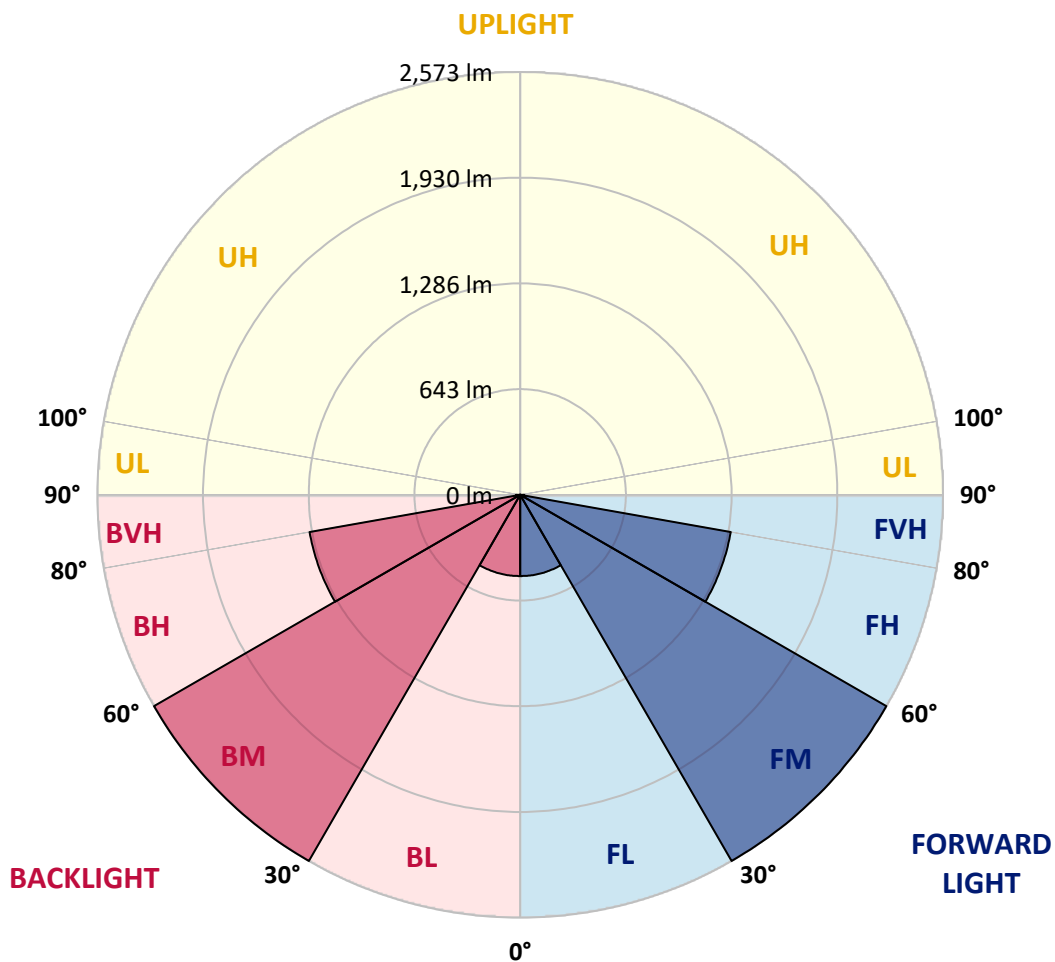
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	494.4	5.6			
FM	(30°-60°)	2572.8	29.3			
FH	(60°-80°)	1301.2	14.8			G1/1800
FVH	(80°-90°)	25.1	0.3			G1/100
BL	(0°-30°)	494.4	5.6	B1/500		
BM	(30°-60°)	2572.8	29.3	B3/5000		
BH	(60°-80°)	1301.2	14.8	B3/2500		G1/1800
BVH	(80°-90°)	25.1	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G1

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	994.3	994.3	994.3	994.3	994.3	994.3	994.3	994.3	994.3	994.3	994.3
2.5°	995.1	995.9	996.8	995.9	996.8	995.5	994.7	995.9	994.7	993.5	994.3
5°	1003.8	1004.2	1004.2	1002.9	1004.2	1003.3	1002.1	1003.8	1002.5	1001.3	1002.1
7.5°	1018.2	1019.8	1018.6	1017.3	1018.2	1017.3	1016.5	1016.9	1016.5	1015.3	1015.7
10°	1037.5	1038.7	1037.9	1037.5	1038.3	1037.9	1037.1	1036.7	1037.1	1035.9	1035.9
12.5°	1061.0	1060.6	1060.1	1060.6	1061.8	1061.8	1061.4	1061.8	1062.6	1063.0	1062.2
15°	1084.0	1084.8	1084.8	1084.8	1087.3	1089.4	1090.6	1091.4	1093.1	1093.5	1091.8
17.5°	1112.8	1112.8	1112.4	1112.8	1115.3	1118.6	1119.8	1121.5	1123.1	1124.3	1122.3
20°	1144.9	1145.7	1145.7	1146.6	1149.9	1153.6	1153.6	1154.4	1153.6	1154.4	1153.1
22.5°	1184.0	1186.5	1186.5	1186.9	1190.2	1194.7	1193.5	1194.7	1192.7	1194.3	1192.7
25°	1235.0	1238.7	1237.9	1237.9	1240.4	1243.3	1243.7	1246.2	1245.7	1247.8	1246.6
27.5°	1292.7	1298.4	1300.1	1299.7	1301.3	1304.2	1305.0	1307.9	1306.2	1307.9	1307.1
30°	1361.8	1364.3	1367.6	1368.8	1370.9	1373.7	1373.7	1374.1	1372.1	1374.6	1375.8
32.5°	1433.4	1437.9	1441.2	1448.6	1452.3	1454.4	1454.0	1454.8	1452.8	1456.0	1458.5
35°	1528.1	1531.4	1536.7	1542.5	1547.4	1547.0	1545.8	1546.2	1546.2	1549.1	1551.5
37.5°	1642.1	1642.9	1649.9	1658.1	1660.6	1658.1	1650.7	1649.1	1645.4	1649.1	1653.2
40°	1762.6	1765.5	1779.5	1784.9	1786.1	1781.6	1770.9	1764.7	1756.5	1761.0	1766.8
42.5°	1889.0	1894.8	1907.5	1917.0	1921.1	1918.2	1903.4	1893.9	1883.2	1885.7	1891.5
45°	2028.9	2035.9	2054.0	2063.1	2070.9	2066.4	2052.0	2037.6	2020.7	2021.9	2031.0
47.5°	2185.3	2192.3	2215.8	2231.0	2235.1	2234.3	2218.2	2198.5	2175.4	2174.6	2182.4
50°	2360.6	2367.6	2396.8	2420.3	2432.2	2431.0	2412.1	2384.1	2356.1	2356.5	2366.4
52.5°	2531.8	2540.5	2570.9	2611.3	2634.7	2651.6	2640.1	2613.7	2579.6	2580.4	2589.4
55°	2692.3	2706.7	2741.7	2796.4	2840.1	2887.4	2901.0	2900.2	2879.6	2885.3	2894.4
57.5°	2770.1	2791.5	2845.4	2931.8	3020.7	3117.0	3198.5	3259.4	3285.4	3324.5	3315.4
60°	2622.8	2656.9	2736.4	2863.5	3039.3	3240.1	3455.3	3665.6	3845.1	3980.5	3902.7
62.5°	2147.4	2191.9	2288.2	2451.2	2717.0	3038.4	3450.4	3947.5	4489.1	4815.9	4582.5
65°	1343.7	1389.8	1487.7	1662.2	1973.4	2373.0	2931.8	3755.8	4767.7	5260.4	4785.4
67.5°	523.9	549.0	602.1	713.6	947.4	1303.0	1863.9	2798.9	4009.3	4441.0	3934.8
70°	262.6	265.0	274.9	295.5	345.7	449.0	683.2	1297.6	2299.3	2777.1	2216.6
72.5°	189.7	190.1	195.1	204.1	220.2	243.2	287.7	397.1	747.8	1142.9	700.9
75°	145.3	146.9	149.8	154.7	163.4	174.9	191.0	228.8	283.6	328.8	276.6
77.5°	111.9	115.2	117.3	121.8	127.2	135.0	139.5	153.9	179.0	188.5	185.6
80°	85.2	88.1	92.6	96.3	100.0	103.7	102.1	108.6	121.8	129.6	125.5
82.5°	54.3	57.6	70.8	74.1	75.7	78.2	75.3	75.7	81.5	86.4	81.5
85°	35.0	37.0	44.9	49.0	49.4	51.0	49.8	46.9	46.9	42.8	48.2
87.5°	16.1	16.5	20.2	23.9	24.7	22.2	21.8	21.0	16.9	16.1	17.3
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°	994.3	994.3	994.3	994.3	994.3	994.3	994.3	994.3
2.5°	993.9	994.7	995.1	996.3	996.8	996.8	997.2	998.0
5°	1001.7	1002.9	1003.3	1005.0	1005.4	1005.0	1005.8	1006.2
7.5°	1015.7	1017.7	1018.6	1020.2	1019.0	1020.6	1021.0	1021.0
10°	1036.3	1038.3	1038.7	1040.4	1039.6	1040.4	1040.4	1039.6
12.5°	1063.4	1063.8	1062.6	1063.8	1062.2	1063.0	1061.8	1061.0
15°	1093.5	1092.2	1089.4	1089.4	1086.9	1087.3	1086.9	1086.5
17.5°	1122.7	1120.2	1118.2	1117.3	1115.3	1114.9	1113.6	1113.6
20°	1154.8	1153.6	1152.3	1150.7	1148.6	1146.6	1146.2	1147.0
22.5°	1193.5	1193.1	1193.1	1192.2	1189.4	1187.3	1186.1	1186.1
25°	1245.3	1241.6	1241.6	1241.2	1240.0	1238.7	1236.3	1237.5
27.5°	1303.8	1301.7	1303.4	1303.0	1301.7	1301.7	1300.1	1300.1
30°	1375.8	1375.0	1377.4	1375.4	1371.3	1370.9	1369.2	1367.2
32.5°	1458.9	1458.1	1461.8	1459.3	1452.8	1449.0	1445.8	1444.1
35°	1551.5	1551.9	1556.5	1554.8	1547.4	1544.9	1539.2	1538.4
37.5°	1652.8	1659.3	1667.2	1668.8	1662.6	1661.0	1654.8	1651.5
40°	1771.7	1780.3	1792.3	1795.2	1788.6	1787.3	1778.7	1774.2
42.5°	1898.5	1913.3	1928.1	1930.6	1924.0	1917.4	1909.2	1905.9
45°	2040.0	2057.7	2077.1	2082.0	2072.1	2064.3	2053.6	2053.6
47.5°	2198.9	2221.1	2242.9	2256.5	2247.4	2239.2	2226.5	2218.2
50°	2386.5	2417.0	2445.4	2459.4	2445.0	2429.3	2407.1	2399.7
52.5°	2622.0	2654.9	2679.6	2672.2	2649.9	2628.1	2603.8	2594.0
55°	2922.4	2933.5	2933.5	2905.5	2861.1	2824.4	2786.2	2773.4
57.5°	3298.1	3255.3	3189.5	3105.9	3001.0	2909.6	2847.9	2818.7
60°	3739.7	3533.9	3301.4	3073.0	2885.3	2730.6	2638.8	2596.8
62.5°	4034.0	3495.7	3029.8	2663.1	2393.1	2206.7	2079.9	2030.6
65°	3770.2	2915.4	2291.5	1852.8	1558.5	1368.8	1243.3	1197.2
67.5°	2761.5	1826.8	1220.2	874.5	640.8	511.1	459.7	438.3
70°	1239.6	643.2	394.3	307.8	265.4	243.6	234.2	230.9
72.5°	373.7	270.4	228.0	205.8	188.9	178.2	170.4	169.6
75°	225.5	187.7	166.7	153.5	142.8	134.2	130.0	128.8
77.5°	157.6	137.9	128.0	118.5	110.3	103.7	100.0	97.1
80°	110.7	101.2	96.7	91.4	86.0	79.8	74.5	72.0
82.5°	74.1	72.0	72.0	68.7	64.2	58.4	47.7	45.3
85°	47.7	47.3	48.2	46.9	43.6	37.5	30.9	29.2
87.5°	22.2	22.6	25.1	24.7	23.9	19.8	15.6	14.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)