

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: P451981

Luminaire Tested: **GALN-SA2D-827-U-T3**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P451981
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-12)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA2D-827-U-T3
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(2) 80 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11341 lumens
Efficiency: N/A
Efficacy: 90.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G2

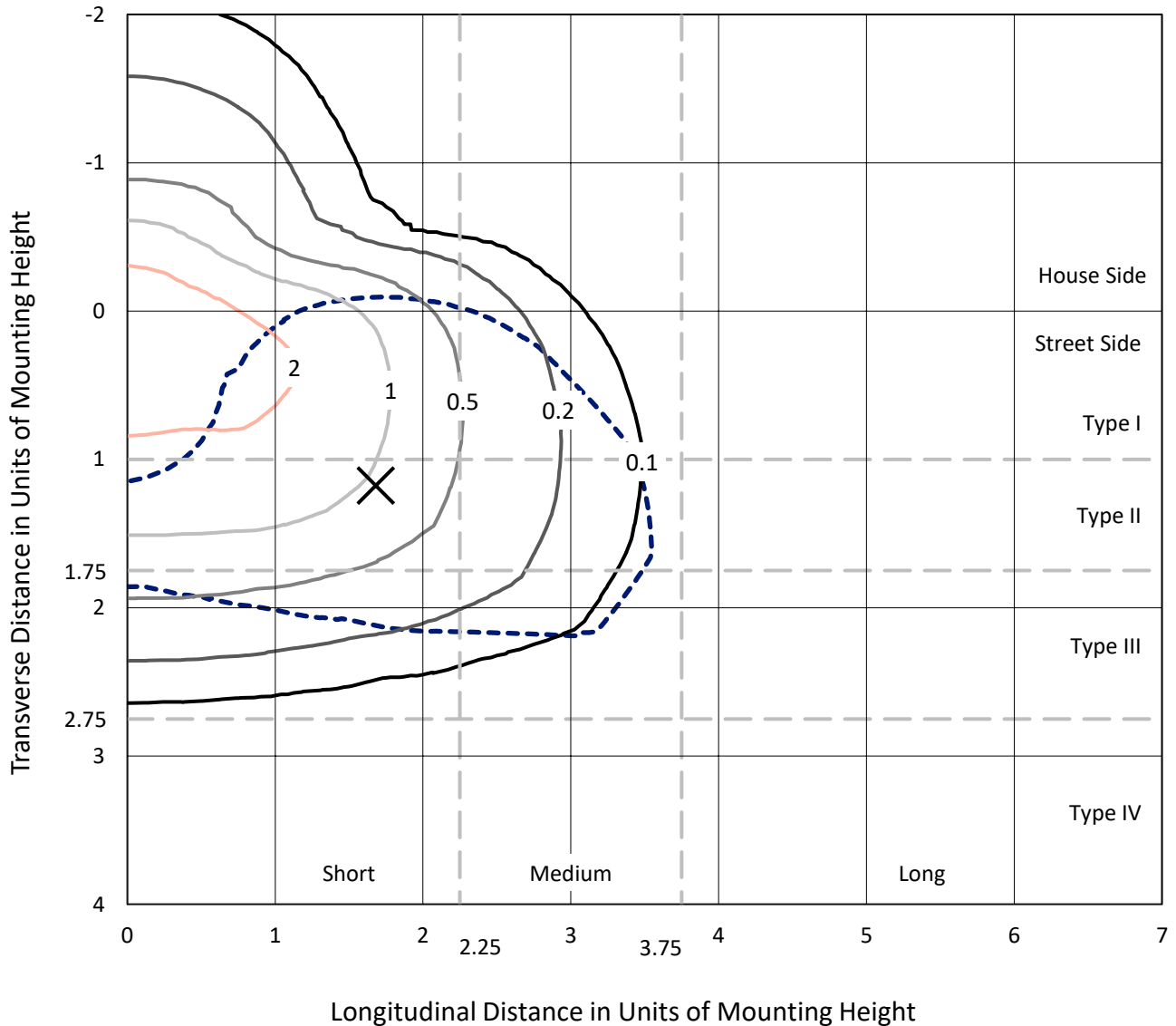
Input Watts (W): 125
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

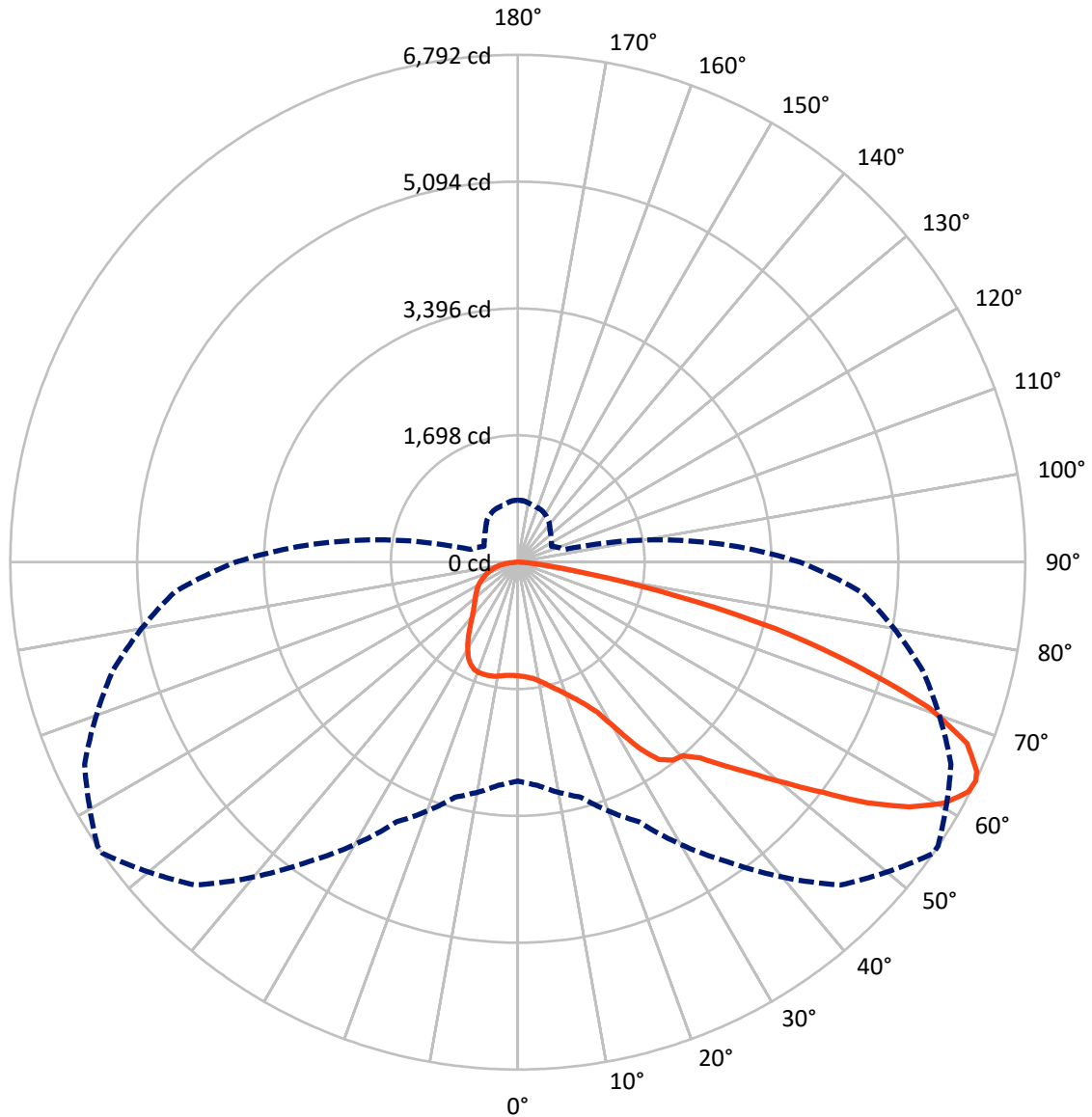
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.8 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral - - - Horizontal Cone Through 64-Deg Vertical

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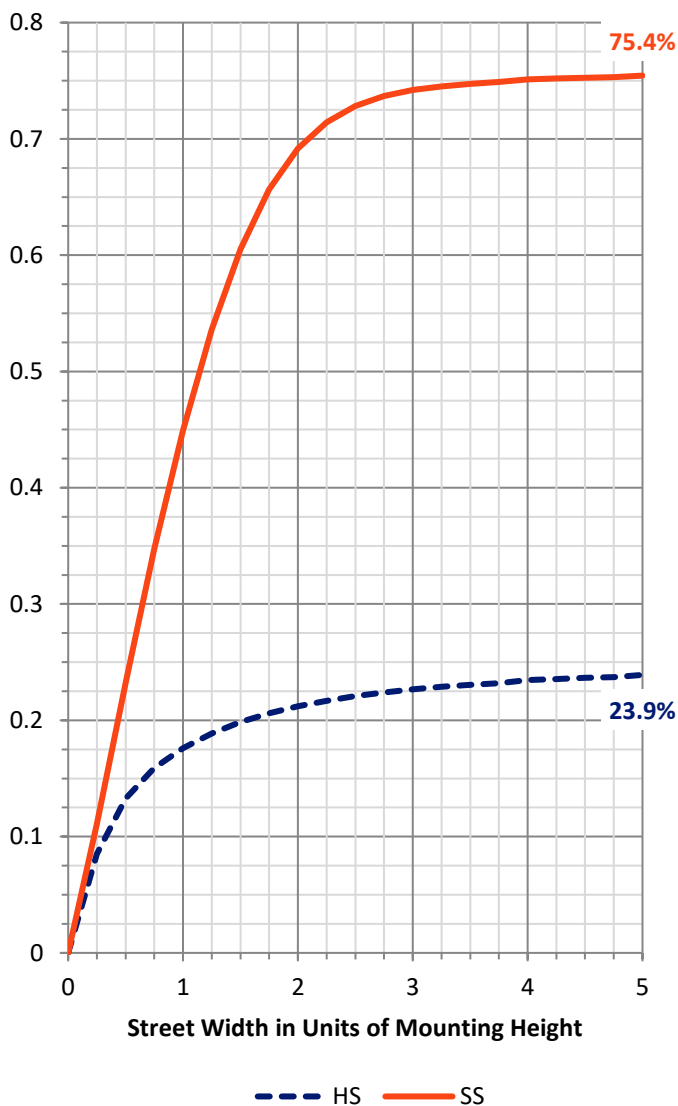
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2755.0	0.0	2755.0
	% Fixture	24.3	0.0	24.3
Street Side	Lumens	8586.1	0.0	8586.1
	% Fixture	75.7	0.0	75.7
Total	Lumens	11341.0	0.0	11341.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	148.0	1.3
10°-20°	467.0	4.1
20°-30°	831.4	7.3
30°-40°	1279.2	11.3
40°-50°	1813.4	16.0
50°-60°	2624.9	23.1
60°-70°	2716.5	24.0
70°-80°	1272.1	11.2
80°-90°	188.3	1.7
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°	11341.0	100.0
0°-180°	11341.0	100.0

Coefficient of Utilization



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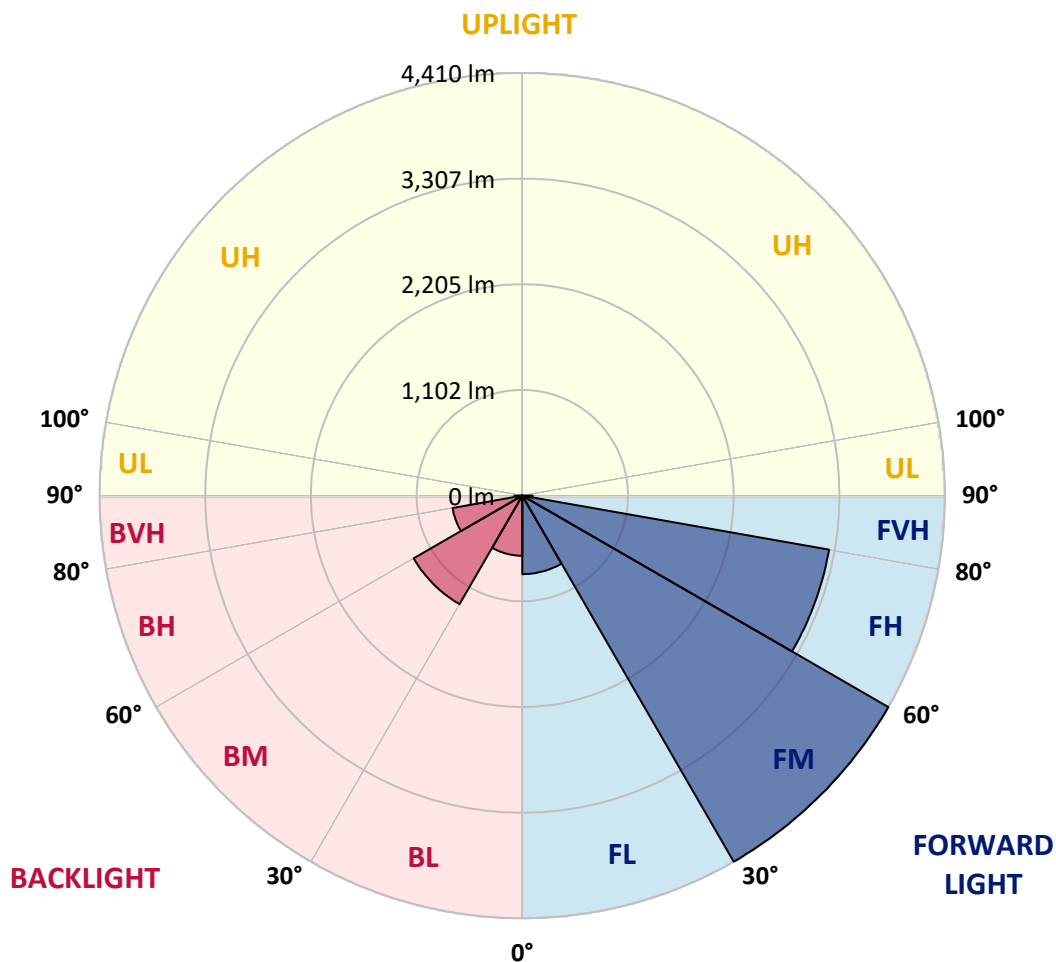
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	819.0	7.2			
FM	(30°-60°)	4409.7	38.9			
FH	(60°-80°)	3249.5	28.7			G2/5000
FVH	(80°-90°)	107.8	1.0			G2/225
BL	(0°-30°)	627.5	5.5	B2/1000		
BM	(30°-60°)	1307.9	11.5	B2/2500		
BH	(60°-80°)	739.1	6.5	B2/1000		G2/1000
BVH	(80°-90°)	80.5	0.7			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	65°	75°	85°
0°	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6
2.5°	1538.7	1538.1	1540.0	1538.1	1539.3	1534.9	1533.0	1534.3	1532.4	1529.2	1523.5
5°	1557.7	1557.0	1557.7	1555.1	1556.4	1553.9	1549.4	1550.7	1547.5	1540.6	1532.4
7.5°	1589.9	1587.4	1587.4	1586.7	1584.2	1580.4	1577.3	1576.0	1572.8	1564.0	1551.3
10°	1631.6	1631.6	1632.2	1627.2	1630.4	1623.4	1620.2	1619.6	1608.9	1597.5	1579.8
12.5°	1686.6	1689.8	1687.9	1685.4	1684.1	1681.6	1670.8	1673.3	1661.3	1641.7	1620.2
15°	1754.9	1759.9	1756.8	1755.5	1752.4	1742.9	1738.5	1736.6	1720.8	1692.3	1663.9
17.5°	1845.3	1839.0	1836.4	1833.3	1820.0	1813.0	1805.5	1804.2	1790.3	1756.8	1712.5
20°	1924.3	1933.2	1928.1	1924.9	1911.7	1898.4	1892.7	1890.8	1878.8	1842.1	1771.3
22.5°	2018.5	2020.4	2022.3	2014.7	2008.4	1998.3	1988.2	1985.0	1980.6	1942.6	1856.0
25°	2119.0	2126.6	2120.3	2112.7	2105.1	2104.5	2114.0	2112.7	2110.8	2074.1	1968.6
27.5°	2282.7	2289.7	2291.6	2283.4	2254.3	2256.8	2278.3	2285.3	2314.4	2253.7	2113.3
30°	2375.0	2382.0	2397.8	2428.8	2474.9	2515.4	2567.2	2583.0	2610.8	2496.4	2285.3
32.5°	2431.9	2434.5	2462.9	2520.4	2658.9	2810.0	2950.9	2956.6	2974.3	2813.8	2442.7
35°	2521.7	2523.6	2546.4	2609.6	2772.0	3023.6	3241.7	3248.7	3234.2	2912.4	2516.0
37.5°	2632.3	2637.4	2651.9	2704.4	2898.5	3202.5	3362.5	3357.4	3228.5	2990.8	2645.6
40°	2793.5	2793.5	2776.5	2847.3	3031.9	3305.0	3404.8	3396.0	3361.9	3217.7	2842.8
42.5°	2935.8	2933.2	2973.7	3021.7	3198.8	3463.0	3582.5	3597.0	3653.3	3502.8	3067.3
45°	3121.0	3132.4	3155.1	3242.4	3482.6	3732.9	3887.2	3901.1	3980.7	3838.5	3329.6
47.5°	3308.1	3311.9	3383.3	3499.7	3834.1	4099.0	4225.4	4248.1	4320.8	4231.1	3612.2
50°	3440.9	3476.9	3591.3	3774.7	4196.3	4545.3	4643.9	4671.1	4799.4	4658.4	3941.5
52.5°	3581.2	3616.6	3756.3	4035.7	4612.3	5001.7	5123.1	5141.4	5274.8	5090.8	4278.5
55°	3701.3	3734.2	3892.9	4267.1	4943.5	5467.6	5687.6	5666.1	5729.9	5424.0	4538.3
57.5°	3720.9	3747.5	3947.2	4415.0	5192.6	5867.1	6182.6	6195.2	6121.2	5673.0	4752.6
60°	3569.2	3623.6	3853.0	4399.2	5304.5	6145.3	6551.8	6560.6	6350.7	5800.7	4838.0
62.5°	3300.5	3294.8	3572.4	4145.1	5147.7	6208.5	6769.2	6759.7	6440.5	5739.4	4755.1
64°	2929.5	2997.7	3256.9	3832.8	4894.8	6111.1	6792.0	6786.9	6397.5	5611.7	4614.2
65°	2703.1	2699.3	2955.4	3577.4	4643.2	5964.5	6751.5	6744.6	6307.7	5497.3	4504.8
67.5°	1951.5	1960.3	2213.2	2760.7	3774.7	5391.1	6487.9	6462.0	5953.7	5118.0	4088.8
70°	1182.1	1187.2	1385.7	1831.4	2709.5	4358.1	5848.2	5849.4	5412.0	4551.6	3480.1
72.5°	622.7	636.0	715.6	1039.9	1645.5	3057.8	4744.4	4856.9	4646.4	3884.7	2749.3
75°	346.4	348.3	404.6	512.7	839.5	1711.3	3566.0	3598.3	3678.6	3126.7	2033.0
77.5°	264.2	268.0	285.7	331.3	457.1	793.4	2158.2	2320.0	2592.5	2204.4	1160.0
80°	214.3	218.1	233.3	260.5	304.1	376.1	1002.6	1089.9	1387.6	978.6	452.6
82.5°	166.9	164.4	184.0	201.7	221.3	222.5	411.5	455.2	565.2	421.0	196.0
85°	123.9	123.9	139.7	135.9	142.9	130.2	181.4	200.4	226.3	178.9	91.0
87.5°	49.3	54.4	91.7	82.2	63.8	51.2	67.0	70.8	78.4	70.2	37.9
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°	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6
2.5°	1524.1	1526.0	1521.6	1518.5	1517.2	1515.3	1513.4	1514.0	1516.6	1519.1	1518.5
5°	1531.7	1532.4	1524.8	1521.0	1518.5	1515.9	1515.9	1517.8	1522.9	1526.7	1526.7
7.5°	1550.7	1550.7	1540.0	1533.0	1529.2	1524.8	1523.5	1524.1	1527.9	1533.0	1533.6
10°	1580.4	1577.9	1564.0	1553.2	1546.3	1535.5	1526.0	1521.0	1522.9	1526.0	1526.0
12.5°	1616.4	1609.5	1591.8	1577.3	1560.2	1540.0	1520.4	1510.2	1509.6	1512.8	1511.5
15°	1655.0	1647.4	1622.8	1596.2	1566.5	1536.8	1513.4	1498.9	1487.5	1484.3	1491.3
17.5°	1699.9	1684.1	1649.9	1613.3	1569.0	1530.5	1493.8	1464.1	1443.9	1438.2	1440.1
20°	1754.3	1733.4	1687.2	1629.7	1567.1	1507.7	1450.8	1411.0	1378.1	1368.0	1369.3
22.5°	1829.5	1793.5	1725.8	1637.9	1551.3	1464.7	1385.7	1333.9	1294.0	1278.2	1287.7
25°	1914.8	1875.6	1762.5	1636.0	1510.2	1395.8	1308.6	1240.9	1204.9	1181.5	1186.6
27.5°	2032.4	1962.9	1801.7	1619.0	1451.4	1311.7	1210.6	1146.7	1113.9	1101.9	1107.6
30°	2182.9	2076.0	1844.0	1572.8	1358.5	1205.5	1112.0	1070.3	1050.7	1035.5	1040.5
32.5°	2291.6	2155.7	1853.5	1495.1	1258.0	1108.8	1045.0	1014.0	992.5	978.0	981.1
35°	2369.4	2223.3	1849.1	1399.6	1153.1	1029.2	991.9	966.6	931.8	900.2	894.5
37.5°	2473.7	2308.0	1816.8	1295.3	1049.4	975.4	948.9	902.1	852.2	809.8	807.9
40°	2633.6	2407.3	1747.9	1172.7	960.9	935.6	903.4	842.7	788.9	754.8	752.3
42.5°	2798.6	2498.9	1654.4	1043.7	888.2	893.9	854.7	794.6	761.8	739.6	737.1
45°	3000.3	2598.2	1553.2	931.8	834.5	854.7	812.3	777.6	758.0	743.4	739.6
47.5°	3218.3	2700.0	1439.4	831.3	788.9	818.7	794.6	778.8	768.1	758.0	753.5
50°	3453.5	2813.8	1332.6	750.4	747.9	781.4	792.7	787.0	780.7	777.6	773.8
52.5°	3711.4	2930.1	1242.8	693.5	711.8	754.8	793.4	797.8	797.8	795.9	793.4
55°	3885.9	3011.0	1151.8	647.3	675.2	733.3	792.1	809.2	815.5	813.0	810.4
57.5°	4014.9	3055.3	1037.4	607.5	644.2	712.4	785.1	810.4	816.8	819.9	818.7
60°	4041.4	3014.2	887.6	565.8	610.7	682.1	759.9	791.5	799.7	819.3	821.2
62.5°	3921.9	2887.7	738.4	524.7	569.6	636.0	725.7	770.0	786.4	816.8	819.9
64°	3775.3	2746.1	655.6	498.8	543.0	610.0	708.7	764.3	785.8	826.2	828.8
65°	3667.8	2643.1	603.7	482.3	526.0	593.0	699.2	766.2	791.5	840.8	844.6
67.5°	3272.1	2288.4	499.4	443.8	485.5	563.9	701.1	782.0	790.2	846.5	845.8
70°	2707.6	1821.9	418.5	408.4	446.3	540.5	693.5	756.7	757.3	794.6	785.8
72.5°	2027.4	1346.5	362.9	371.7	402.7	484.9	654.9	722.6	711.8	716.9	708.0
75°	1392.7	890.7	312.3	332.5	357.2	428.6	600.6	656.2	639.1	632.8	626.5
77.5°	743.4	492.5	259.8	294.0	310.4	370.4	524.1	577.8	560.1	535.4	527.2
80°	300.9	232.0	209.2	243.4	252.9	298.4	436.2	469.7	456.4	413.4	399.5
82.5°	151.1	139.1	164.4	191.5	192.2	213.0	324.3	355.9	326.2	273.7	261.7
85°	79.0	81.5	113.2	134.7	118.8	115.1	194.7	215.6	197.9	171.9	154.9
87.5°	28.4	32.9	59.4	58.8	41.7	22.1	43.0	20.9	11.4	7.0	8.9
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)