

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: STREETWORKS

Report Number: P231306

Luminaire Tested: **ARCH-M-AF48-140-D-U-T4W-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231306
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29615)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-140-D-U-T4W-7050
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 905mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16903 lumens
Efficiency: N/A
Efficacy: 119.9 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B3 - U0 - G3

Input Watts (W): 141
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: 28.75 FT

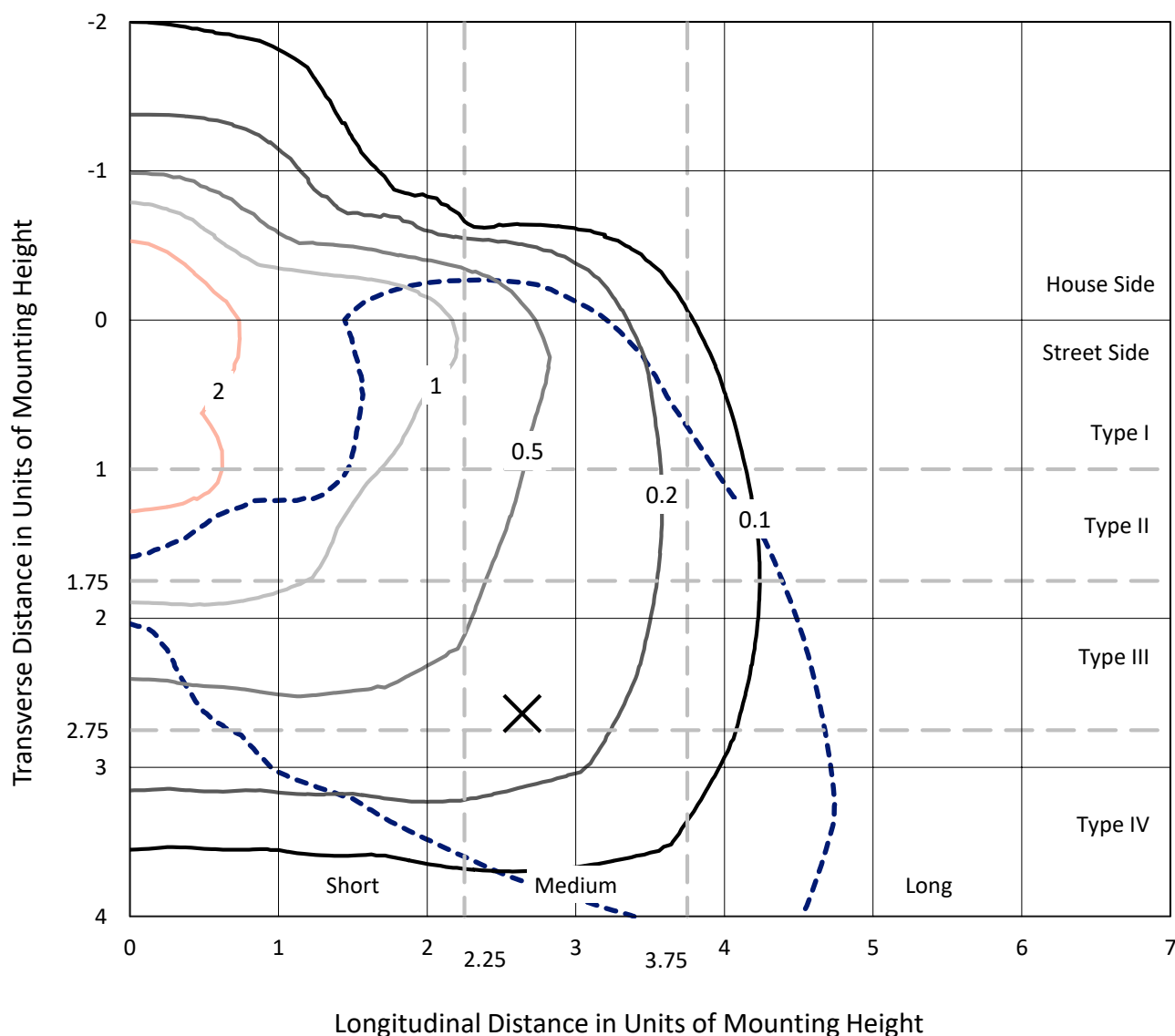


REPORT NUMBER: P231306

CATALOG NUMBER: ARCH-M-AF48-140-D-U-T4W-7050

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

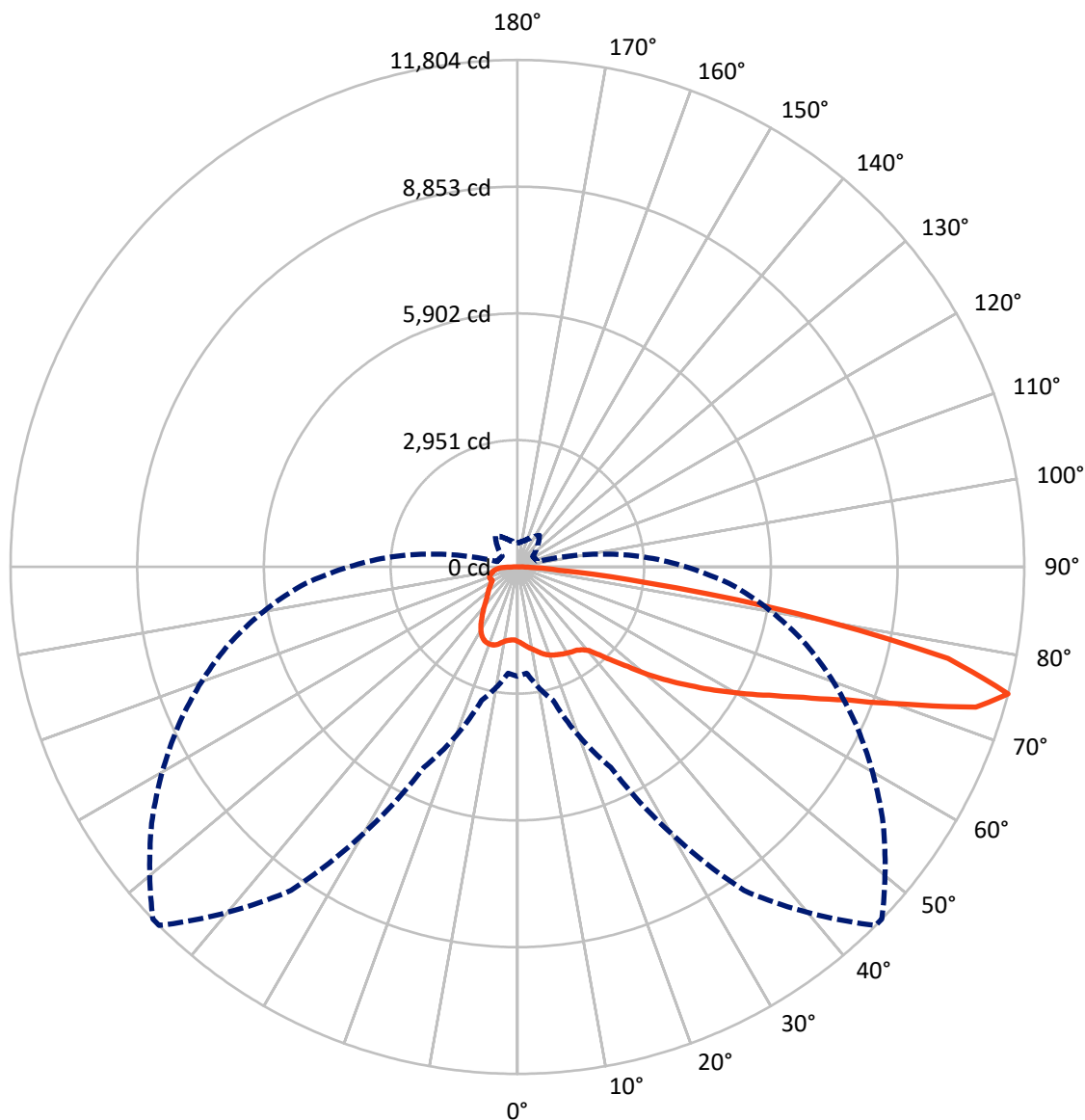


Based on 25 foot mounting height. Maximum calculated value = 3.2 fc
 Type IV - Medium - Non-Cutoff

REPORT NUMBER: P231306

CATALOG NUMBER: ARCH-M-AF48-140-D-U-T4W-7050

Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

REPORT NUMBER: P231306

CATALOG NUMBER: ARCH-M-AF48-140-D-U-T4W-7050

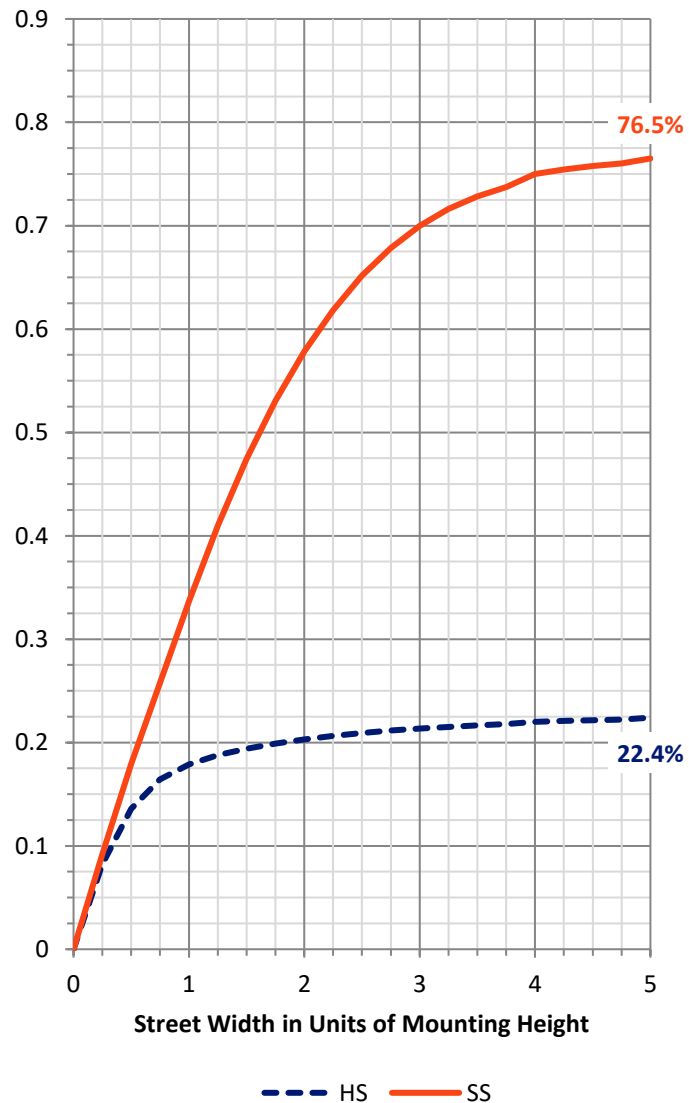
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3915.7	0.0	3915.7
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	12987.3	0.0	12987.3
	% Fixture	76.8	0.0	76.8
Total	Lumens	16903.0	0.0	16903.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	171.7	1.0
10°-20°	556.5	3.3
20°-30°	954.9	5.6
30°-40°	1335.5	7.9
40°-50°	1959.1	11.6
50°-60°	3051.8	18.1
60°-70°	4391.3	26.0
70°-80°	3825.3	22.6
80°-90°	656.9	3.9
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°	16903.0	100.0
0°-180°	16903.0	100.0

Coefficient of Utilization



REPORT NUMBER: P231306

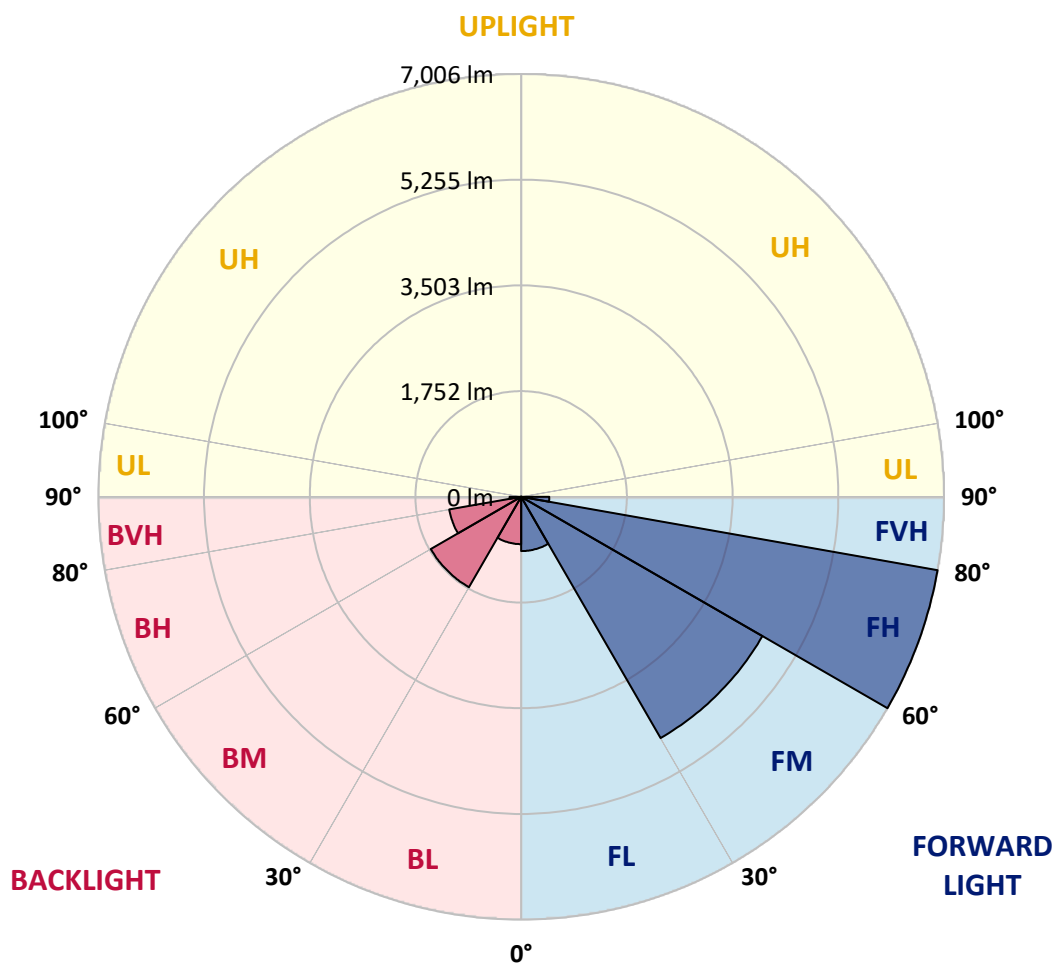
CATALOG NUMBER: ARCH-M-AF48-140-D-U-T4W-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	898.8	5.3			
FM	(30°-60°)	4615.9	27.3			
FH	(60°-80°)	7006.5	41.5			G3/7500
FVH	(80°-90°)	466.1	2.8			G3/500
BL	(0°-30°)	784.3	4.6	B2/1000		
BM	(30°-60°)	1730.5	10.2	B2/2500		
BH	(60°-80°)	1210.1	7.2	B3/2500		G3/2500
BVH	(80°-90°)	190.8	1.1			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type IV Medium





REPORT NUMBER: P231306

CATALOG NUMBER: ARCH-M-AF48-140-D-U-T4W-7050

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	1732.8	1732.8	1732.8	1732.8	1732.8	1732.8	1732.8	1732.8	1732.8	1732.8	1732.8
2.5°	1818.3	1805.1	1805.1	1795.3	1795.3	1778.8	1772.3	1769.0	1752.5	1742.7	1732.8
5°	1923.5	1907.1	1903.8	1880.8	1870.9	1834.7	1831.4	1808.4	1778.8	1749.2	1726.2
7.5°	2018.9	2009.0	1992.6	1969.5	1939.9	1893.9	1890.6	1854.5	1805.1	1765.7	1732.8
10°	2087.9	2081.3	2058.3	2028.7	1995.8	1949.8	1946.5	1907.1	1847.9	1801.8	1755.8
12.5°	2170.1	2160.2	2130.7	2091.2	2055.0	2012.3	2009.0	1976.1	1910.4	1851.2	1792.0
15°	2249.0	2235.9	2199.7	2160.2	2120.8	2084.6	2084.6	2048.4	1979.4	1910.4	1841.3
17.5°	2288.5	2281.9	2245.7	2203.0	2170.1	2143.8	2140.5	2107.6	2038.6	1966.2	1890.6
20°	2301.6	2304.9	2272.0	2226.0	2203.0	2189.8	2186.5	2163.5	2087.9	2018.9	1946.5
22.5°	2298.3	2308.2	2281.9	2232.6	2226.0	2226.0	2226.0	2199.7	2140.5	2071.5	1999.1
25°	2311.5	2324.6	2304.9	2245.7	2245.7	2258.9	2258.9	2245.7	2193.1	2133.9	2061.6
27.5°	2357.5	2367.4	2350.9	2268.7	2272.0	2291.8	2288.5	2291.8	2258.9	2203.0	2130.7
30°	2413.4	2426.6	2406.8	2304.9	2301.6	2321.4	2321.4	2337.8	2314.8	2255.6	2196.4
32.5°	2564.7	2561.4	2498.9	2344.4	2334.5	2354.2	2354.2	2370.7	2357.5	2311.5	2255.6
35°	3015.1	2965.8	2827.7	2472.6	2374.0	2383.8	2383.8	2413.4	2420.0	2383.8	2334.5
37.5°	3475.5	3459.0	3353.8	2814.6	2518.6	2446.3	2443.0	2485.8	2515.4	2485.8	2452.9
40°	3939.1	3925.9	3902.9	3271.6	2821.1	2558.1	2548.2	2584.4	2637.0	2617.3	2597.6
42.5°	4369.8	4363.2	4386.2	3722.1	3205.8	2798.1	2768.5	2725.8	2801.4	2794.8	2794.8
45°	4708.5	4724.9	4738.1	4142.9	3623.4	3107.2	3071.0	2926.4	3028.3	3054.6	3074.3
47.5°	4899.2	4912.3	4958.4	4553.9	4041.0	3465.6	3439.3	3202.6	3337.4	3416.3	3472.2
50°	5172.1	5135.9	5175.4	4955.1	4544.1	3932.5	3860.2	3574.1	3745.1	3883.2	4014.7
52.5°	5435.1	5375.9	5408.8	5418.7	5116.2	4389.5	4313.9	4011.4	4225.1	4442.1	4675.6
55°	5671.9	5668.6	5701.5	5869.2	5668.6	4879.5	4794.0	4494.8	4803.8	5037.3	5431.8
57.5°	5862.6	5895.5	6040.1	6392.0	6306.5	5412.1	5316.8	5057.0	5422.0	5655.4	6309.7
60°	6086.2	6138.8	6378.8	6835.8	6888.4	5971.1	5872.4	5685.0	6056.6	6293.3	7325.8
62.5°	6161.8	6237.4	6730.6	7302.7	7496.7	6582.7	6493.9	6368.9	6724.0	6937.8	8338.5
65°	5658.7	5803.4	6924.6	7542.8	8151.1	7319.2	7243.6	7135.0	7388.2	7529.6	9025.7
67.5°	5520.6	5586.4	6546.5	7888.0	8765.9	8266.1	8190.5	8003.1	8009.7	7950.5	9249.3
70°	5326.6	5399.0	6158.5	8147.8	9647.1	9561.6	9469.6	8917.2	8578.5	8220.1	8808.7
72.5°	4537.5	4514.5	5306.9	7447.4	10071.3	11166.2	11057.7	9900.3	8999.4	7986.7	7434.3
75°	2548.2	2482.5	3219.0	5152.4	9196.6	11804.1	11800.8	10396.8	8703.4	6957.5	5060.3
77.5°	739.8	720.1	1062.0	2160.2	6191.4	10255.4	10380.3	9377.5	7263.3	4997.8	2778.4
80°	348.5	355.1	457.0	713.5	2643.6	6618.8	6977.2	6174.9	4340.2	2304.9	1147.5
82.5°	220.3	223.6	312.4	460.3	1117.9	3005.3	3301.2	2778.4	1719.6	996.3	506.4
85°	138.1	138.1	207.1	302.5	667.5	960.1	1042.3	947.0	736.5	542.5	276.2
87.5°	75.6	75.6	124.9	174.3	365.0	309.1	318.9	378.1	460.3	332.1	138.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P231306

CATALOG NUMBER: ARCH-M-AF48-140-D-U-T4W-7050

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1732.8	1732.8	1732.8	1732.8	1732.8	1732.8	1732.8	1732.8	1732.8	1732.8	1732.8
2.5°	1729.5	1722.9	1713.1	1709.8	1706.5	1703.2	1706.5	1713.1	1706.5	1706.5	1709.8
5°	1719.6	1713.1	1699.9	1699.9	1703.2	1706.5	1722.9	1732.8	1736.1	1736.1	1736.1
7.5°	1719.6	1709.8	1699.9	1703.2	1709.8	1722.9	1749.2	1765.7	1778.8	1782.1	1782.1
10°	1736.1	1722.9	1716.4	1722.9	1742.7	1752.5	1778.8	1805.1	1821.6	1828.2	1828.2
12.5°	1765.7	1752.5	1752.5	1765.7	1792.0	1805.1	1828.2	1847.9	1867.6	1877.5	1877.5
15°	1815.0	1798.6	1801.8	1824.9	1854.5	1867.6	1884.0	1890.6	1907.1	1920.2	1920.2
17.5°	1861.0	1844.6	1851.2	1877.5	1897.2	1903.8	1913.6	1910.4	1916.9	1926.8	1930.1
20°	1913.6	1897.2	1900.5	1916.9	1920.2	1913.6	1913.6	1903.8	1900.5	1916.9	1923.5
22.5°	1966.2	1949.8	1946.5	1936.7	1920.2	1903.8	1893.9	1884.0	1877.5	1893.9	1900.5
25°	2028.7	2005.7	1989.3	1946.5	1903.8	1874.2	1861.0	1854.5	1851.2	1867.6	1874.2
27.5°	2097.8	2074.8	2025.4	1933.4	1864.3	1815.0	1805.1	1805.1	1811.7	1821.6	1828.2
30°	2163.5	2140.5	2051.7	1903.8	1795.3	1722.9	1713.1	1722.9	1739.4	1749.2	1759.1
32.5°	2229.3	2206.3	2068.2	1857.7	1693.3	1601.3	1594.7	1611.1	1637.4	1644.0	1650.6
35°	2318.1	2295.1	2087.9	1792.0	1565.1	1466.5	1459.9	1469.8	1492.8	1502.6	1512.5
37.5°	2443.0	2429.9	2117.5	1719.6	1446.7	1338.2	1318.5	1311.9	1325.1	1321.8	1334.9
40°	2607.4	2617.3	2170.1	1624.3	1331.7	1219.9	1177.1	1157.4	1144.2	1117.9	1131.1
42.5°	2847.4	2854.0	2229.3	1515.8	1233.0	1108.1	1052.2	1016.0	989.7	947.0	953.5
45°	3199.3	3143.4	2298.3	1400.7	1144.2	1019.3	953.5	910.8	874.6	838.5	841.7
47.5°	3666.2	3495.2	2374.0	1305.4	1055.5	947.0	887.8	838.5	795.7	766.1	769.4
50°	4241.6	3932.5	2449.6	1216.6	966.7	891.1	838.5	785.8	743.1	713.5	710.2
52.5°	5001.1	4458.6	2498.9	1117.9	877.9	841.7	795.7	746.4	693.8	657.6	654.3
55°	5790.2	5070.2	2541.7	999.6	792.4	785.8	762.8	706.9	644.5	598.4	591.8
57.5°	6658.3	5724.5	2574.5	884.5	726.7	739.8	733.2	667.5	598.4	555.7	552.4
60°	7447.4	6401.8	2469.3	782.6	667.5	693.8	700.4	644.5	608.3	618.2	621.4
62.5°	8243.1	6924.6	2068.2	706.9	628.0	664.2	720.1	716.8	700.4	716.8	720.1
65°	8529.2	7033.1	1466.5	644.5	588.6	677.3	782.6	776.0	700.4	670.8	664.2
67.5°	8368.1	6710.9	986.4	595.1	559.0	693.8	848.3	776.0	674.0	634.6	621.4
70°	7601.9	5918.5	723.4	545.8	532.7	690.5	884.5	772.7	660.9	618.2	601.7
72.5°	6063.1	4567.1	582.0	499.8	493.2	674.0	904.2	766.1	647.7	601.7	582.0
75°	3925.9	2840.9	489.9	453.7	434.0	647.7	894.3	746.4	631.3	572.1	559.0
77.5°	1821.6	1223.2	417.6	401.1	378.1	608.3	864.8	706.9	595.1	539.2	522.8
80°	848.3	578.7	351.8	348.5	338.7	575.4	825.3	660.9	552.4	506.4	480.1
82.5°	453.7	348.5	286.1	286.1	295.9	536.0	776.0	605.0	496.5	473.5	404.4
85°	240.0	200.6	207.1	223.6	253.2	473.5	710.2	545.8	434.0	361.7	351.8
87.5°	121.7	128.2	128.2	151.2	194.0	384.7	585.3	450.5	368.3	295.9	289.3
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)