

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: LUMARK

Report Number: P272723

Luminaire Tested: **CTKR2-B3-D-UNV-T3**

Issue Date: 9/28/2018

**Test Information**

Test Method: LM-79-08  
Report Number: P272723  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1809-939-11)  
Test Lab: INNOVATIONS CENTER(G2)  
Issue Date: 9/28/2018  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: CTKR2-B3-D-UNV-T3  
Description: CARETAKER AREA AND ROADWAY LUMINAIRE  
(1) 70 CRI, 4000K LED WITH TYPE III OPTIC AND U0 SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8892 lumens  
Efficiency: N/A  
Efficacy: 126.3 lumens/watt  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
IES Classification: Type III - Medium  
BUG Rating: B2 - U0 - G2

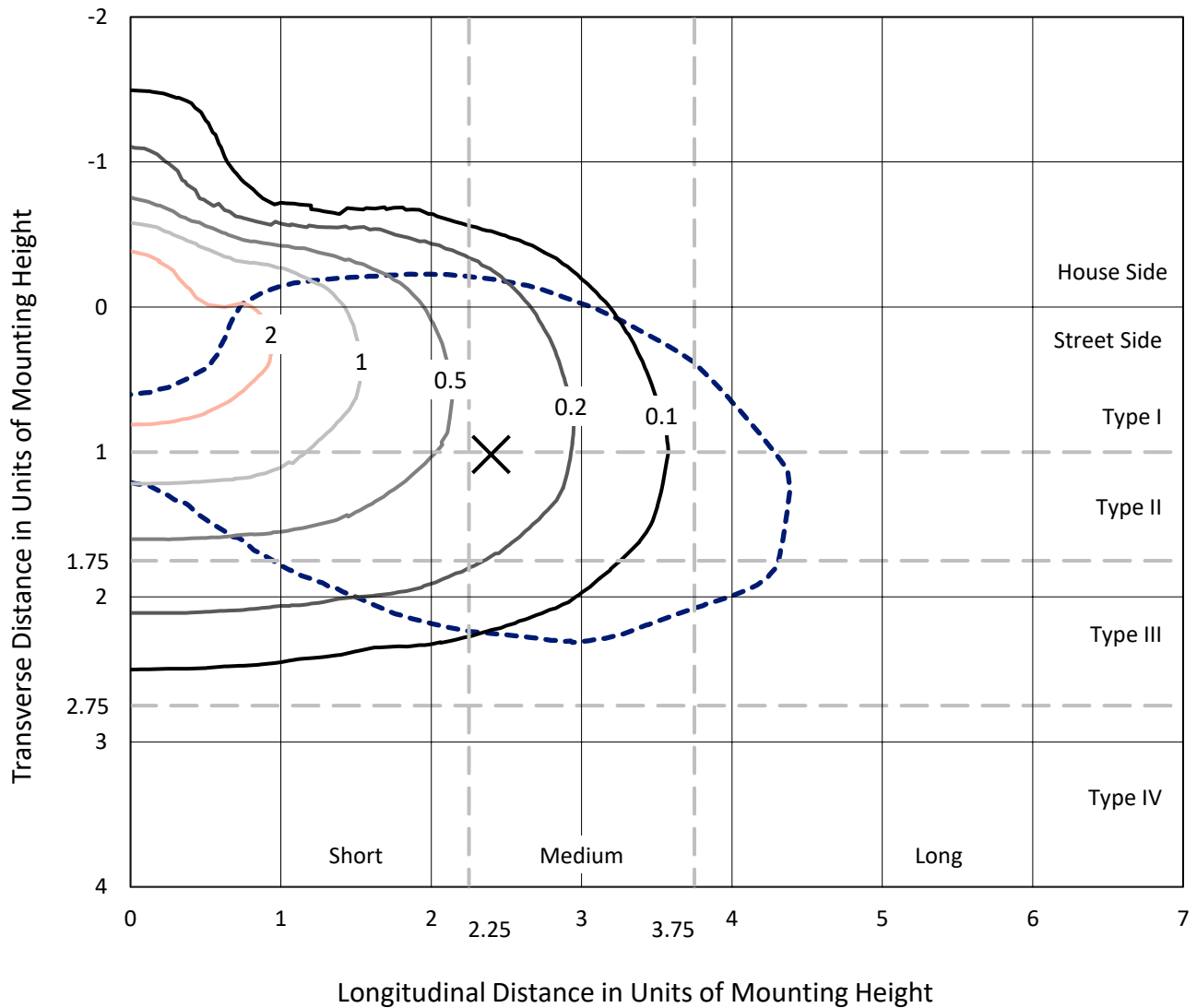
Input Watts (W): 70.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

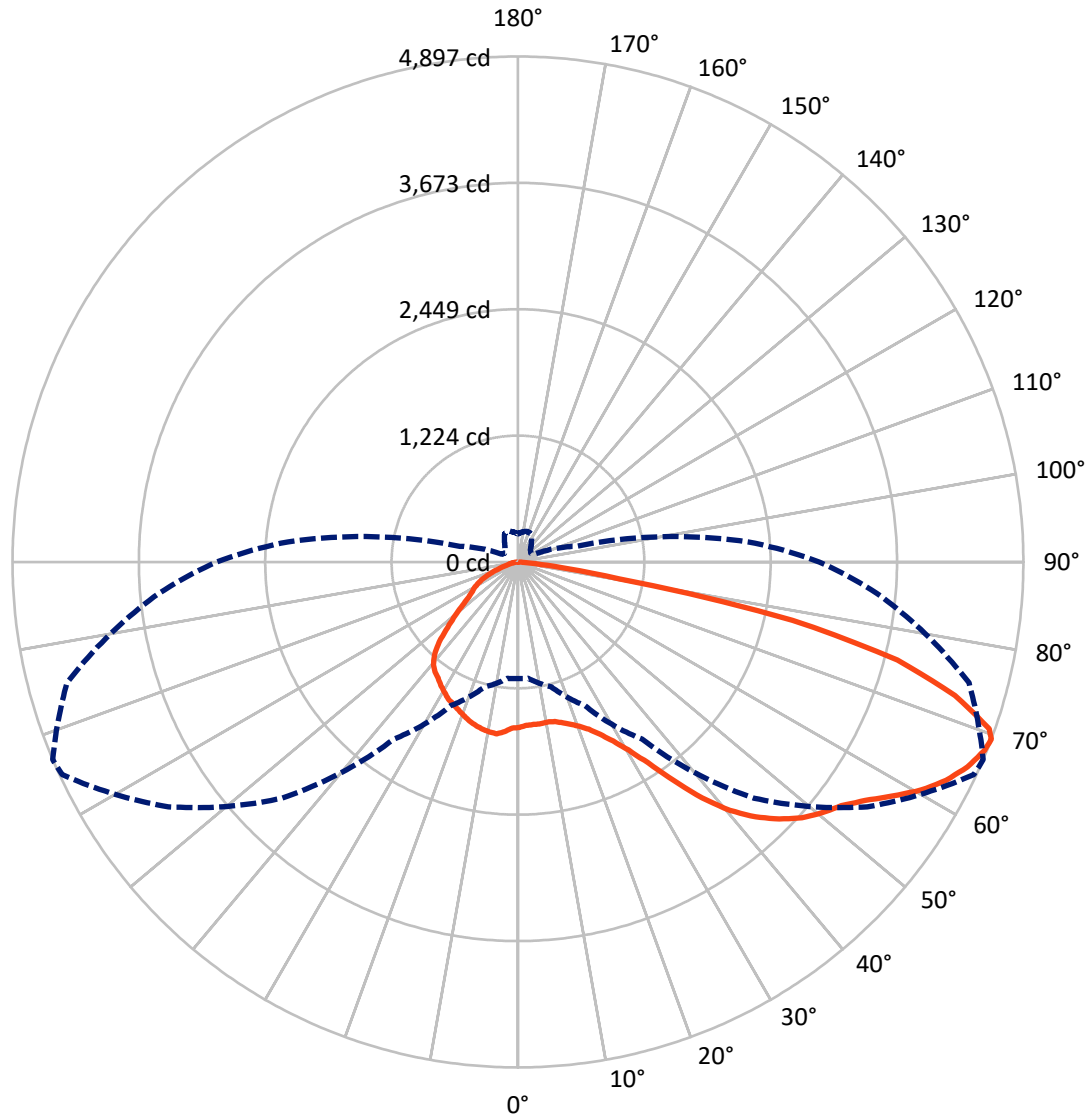
✕ Max cd  
 - - - 1/2 Max cd



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

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### Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

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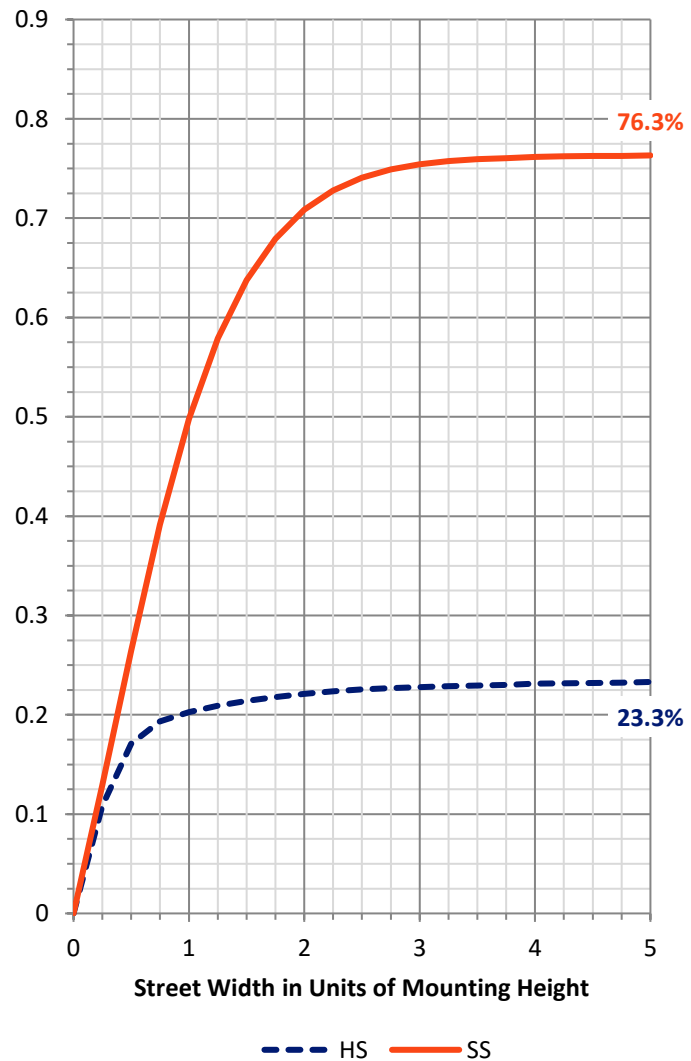
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2102.2	0.0	2102.2
	% Fixture	23.6	0.0	23.6
<b>Street Side</b>	Lumens	6789.8	0.0	6789.8
	% Fixture	76.4	0.0	76.4
<b>Total</b>	Lumens	8892.0	0.0	8892.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	158.3	1.8
10°-20°	480.6	5.4
20°-30°	791.2	8.9
30°-40°	1146.8	12.9
40°-50°	1535.1	17.3
50°-60°	1812.2	20.4
60°-70°	1870.2	21.0
70°-80°	1021.5	11.5
80°-90°	76.0	0.9
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°	8892.0	100.0
0°-180°	8892.0	100.0

**Coefficient of Utilization**



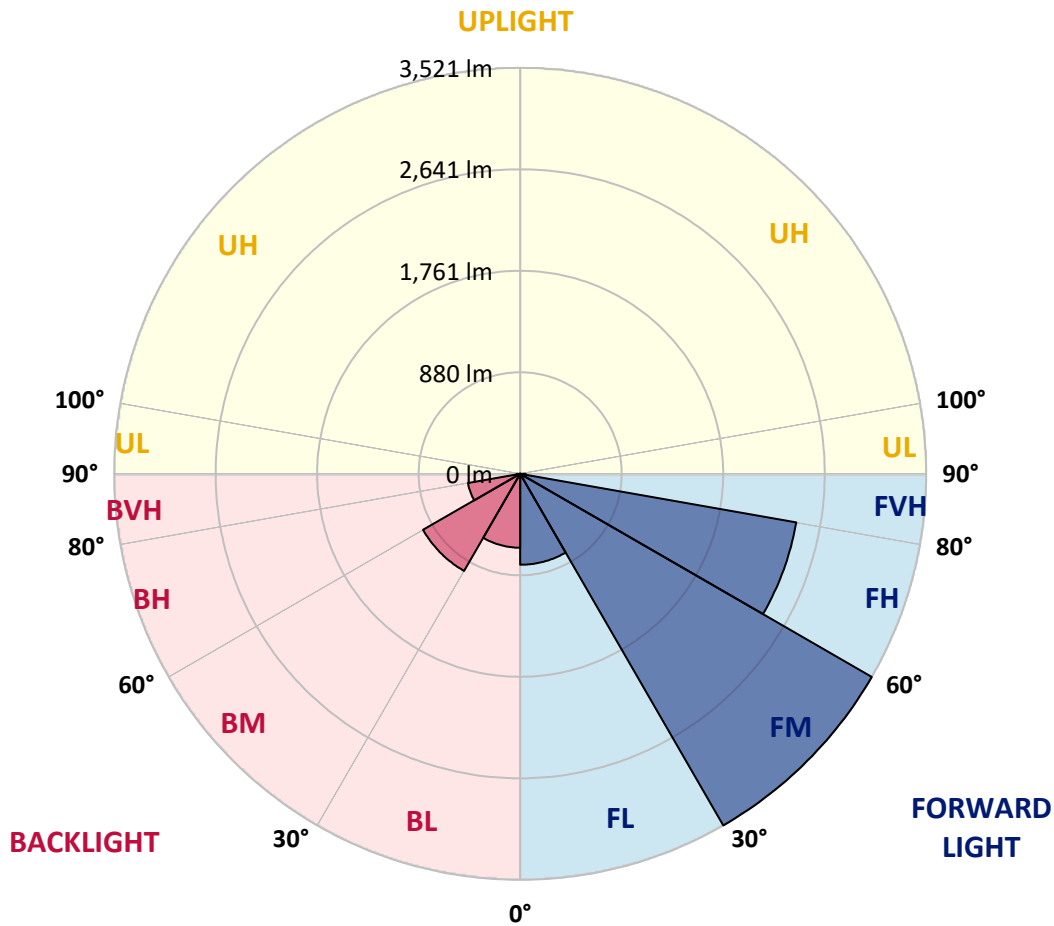
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	788.9	8.9			
FM (30°-60°)	3521.4	39.6			
FH (60°-80°)	2431.7	27.3			G2/5000
FVH (80°-90°)	47.9	0.5			G1/100
BL (0°-30°)	641.2	7.2	B2/1000		
BM (30°-60°)	972.7	10.9	B1/1000		
BH (60°-80°)	460.1	5.2	B1/500		G1/500
BVH (80°-90°)	28.2	0.3			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 Medium



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	1602.8	1602.8	1602.8	1602.8	1602.8	1602.8	1602.8	1602.8	1602.8	1602.8	1602.8
2.5°	1581.4	1580.4	1582.5	1582.5	1581.4	1583.6	1584.6	1584.6	1584.6	1585.7	1586.8
5°	1603.9	1602.8	1601.8	1599.6	1595.3	1592.1	1587.8	1582.5	1581.4	1583.6	1587.8
7.5°	1644.6	1642.4	1639.2	1629.6	1616.7	1606.0	1596.4	1583.6	1583.6	1580.4	1587.8
10°	1686.3	1684.1	1674.5	1662.7	1643.5	1619.9	1600.7	1579.3	1576.1	1570.7	1581.4
12.5°	1750.5	1747.3	1734.4	1713.0	1684.1	1651.0	1619.9	1591.1	1586.8	1580.4	1591.1
15°	1825.4	1822.2	1807.2	1780.4	1744.1	1694.8	1657.4	1621.0	1615.7	1607.1	1614.6
17.5°	1901.3	1897.1	1883.2	1857.5	1810.4	1751.6	1703.4	1658.5	1653.1	1645.6	1645.6
20°	1988.0	1983.7	1968.8	1934.5	1887.4	1822.2	1759.0	1705.5	1699.1	1694.8	1678.8
22.5°	2080.0	2074.7	2060.8	2027.6	1976.2	1902.4	1825.4	1766.5	1760.1	1760.1	1723.7
25°	2190.2	2183.8	2169.9	2132.5	2085.4	2008.3	1917.4	1852.1	1848.9	1846.8	1786.9
27.5°	2296.2	2289.7	2284.4	2255.5	2212.7	2136.7	2035.1	1965.5	1964.5	1960.2	1871.4
30°	2405.3	2400.0	2393.5	2376.4	2346.5	2275.8	2178.5	2113.2	2114.3	2110.0	1986.9
32.5°	2498.4	2503.7	2514.4	2510.2	2490.9	2436.3	2339.0	2303.7	2318.6	2340.0	2209.5
35°	2590.4	2594.7	2628.9	2650.3	2651.4	2605.4	2545.5	2565.8	2602.2	2682.4	2514.4
37.5°	2656.8	2660.0	2694.2	2740.2	2778.7	2768.0	2776.6	2856.8	2900.7	2969.2	2771.2
40°	2710.2	2718.8	2762.7	2830.1	2914.6	2948.9	3004.5	3116.8	3165.0	3184.2	2933.9
42.5°	2667.5	2672.8	2767.0	2908.2	3046.2	3147.9	3217.4	3338.3	3376.8	3354.4	3083.7
45°	2622.5	2627.9	2722.0	2942.4	3155.4	3329.8	3410.0	3518.1	3552.3	3488.1	3197.1
47.5°	2545.5	2557.2	2671.7	2915.7	3237.7	3503.1	3582.3	3691.4	3705.3	3604.8	3290.2
50°	2462.0	2477.0	2608.6	2887.9	3293.4	3634.7	3715.0	3805.9	3818.7	3710.7	3382.2
52.5°	2364.6	2377.5	2521.9	2833.3	3321.2	3723.5	3793.1	3903.3	3922.5	3843.4	3487.1
55°	2256.6	2268.3	2413.9	2745.6	3299.8	3749.2	3858.3	4055.2	4078.7	3986.7	3578.0
57.5°	2125.0	2142.1	2299.4	2631.1	3230.3	3767.4	3981.4	4246.7	4276.7	4135.5	3648.6
60°	1985.9	1996.6	2151.7	2492.0	3114.7	3777.0	4119.4	4456.5	4487.5	4269.2	3706.4
62.5°	1809.3	1821.1	1965.5	2296.2	2949.9	3736.4	4224.3	4646.9	4656.5	4388.0	3736.4
65°	1553.6	1565.4	1728.0	2062.9	2706.0	3610.1	4245.7	4771.0	4786.0	4481.1	3709.6
67.5°	1304.3	1309.7	1434.8	1754.8	2365.7	3411.1	4192.2	4844.9	4874.8	4548.5	3617.6
69°	1128.8	1132.0	1254.0	1534.3	2093.9	3235.6	4134.4	4872.7	4897.3	4523.9	3492.4
70°	1002.6	1003.6	1116.0	1359.9	1888.5	3071.9	4070.2	4839.5	4844.9	4439.3	3379.0
72.5°	715.8	721.2	781.1	929.8	1322.5	2426.7	3676.4	4414.7	4428.6	4046.7	2968.1
75°	262.1	268.6	310.3	440.8	606.7	1506.5	2915.7	3744.9	3796.3	3523.4	2398.9
77.5°	58.8	59.9	68.5	94.2	114.5	310.3	1462.7	2549.8	2717.7	2505.9	1485.1
80°	47.1	47.1	53.5	68.5	76.0	163.7	456.9	918.0	986.5	875.2	438.7
82.5°	35.3	35.3	38.5	42.8	39.6	88.8	180.8	325.3	348.8	304.9	227.9
85°	21.4	21.4	21.4	20.3	12.8	26.7	30.0	48.1	55.6	49.2	56.7
87.5°	9.6	9.6	7.5	6.4	4.3	4.3	4.3	4.3	4.3	4.3	4.3
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):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1602.8	1602.8	1602.8	1602.8	1602.8	1602.8	1602.8	1602.8	1602.8	1602.8	1602.8
2.5°	1590.0	1592.1	1600.7	1612.5	1629.6	1644.6	1658.5	1669.2	1675.6	1679.9	1679.9
5°	1594.3	1602.8	1624.2	1654.2	1686.3	1715.2	1743.0	1761.2	1771.9	1778.3	1779.4
7.5°	1598.5	1610.3	1646.7	1685.2	1723.7	1754.8	1782.6	1804.0	1816.8	1822.2	1825.4
10°	1592.1	1608.2	1642.4	1676.7	1712.0	1748.3	1779.4	1805.0	1819.0	1823.2	1828.6
12.5°	1602.8	1612.5	1632.8	1660.6	1692.7	1723.7	1758.0	1783.7	1805.0	1814.7	1821.1
15°	1619.9	1619.9	1624.2	1637.1	1662.7	1690.6	1717.3	1736.6	1753.7	1769.7	1776.2
17.5°	1639.2	1628.5	1614.6	1609.2	1615.7	1627.4	1646.7	1654.2	1671.3	1686.3	1694.8
20°	1663.8	1642.4	1602.8	1569.7	1552.5	1542.9	1550.4	1553.6	1566.4	1576.1	1587.8
22.5°	1697.0	1662.7	1596.4	1531.1	1485.1	1447.7	1433.8	1429.5	1430.6	1440.2	1453.0
25°	1748.3	1695.9	1593.2	1492.6	1412.4	1345.0	1306.4	1282.9	1278.6	1292.5	1305.4
27.5°	1814.7	1741.9	1595.3	1460.5	1331.1	1225.1	1154.5	1116.0	1119.2	1133.1	1143.8
30°	1901.3	1802.9	1599.6	1409.2	1239.0	1088.2	981.2	927.7	920.2	925.5	944.8
32.5°	2083.2	1914.2	1605.0	1359.9	1133.1	935.2	790.7	726.5	727.6	768.2	784.3
35°	2361.4	2146.4	1649.9	1293.6	1018.6	767.2	598.1	583.1	624.9	682.6	707.3
37.5°	2593.6	2351.8	1769.7	1224.1	880.6	586.3	451.5	459.0	506.1	562.8	591.7
40°	2741.3	2482.3	1857.5	1143.8	684.8	414.1	330.6	344.5	415.2	480.4	501.8
42.5°	2874.0	2599.0	1913.1	1031.5	472.9	293.2	248.2	300.7	379.8	445.1	463.3
45°	2971.3	2686.7	1914.2	880.6	312.4	235.4	233.3	279.3	359.5	418.4	430.1
47.5°	3061.2	2763.7	1858.5	696.6	240.7	221.5	225.8	272.8	356.3	411.9	417.3
50°	3148.9	2834.4	1750.5	560.7	225.8	212.9	220.4	272.8	353.1	394.8	397.0
52.5°	3228.1	2881.4	1591.1	449.4	219.3	207.6	221.5	279.3	353.1	377.7	377.7
55°	3288.0	2877.2	1479.8	358.4	214.0	204.4	226.8	287.8	351.0	358.4	358.4
57.5°	3319.1	2835.4	1378.1	314.6	207.6	203.3	231.1	299.6	348.8	364.9	368.1
60°	3316.9	2793.7	1288.3	285.7	200.1	204.4	236.5	299.6	402.3	434.4	426.9
62.5°	3290.2	2745.6	1139.5	256.8	190.5	199.0	237.5	315.6	555.3	538.2	530.7
65°	3213.1	2618.2	965.1	225.8	177.6	189.4	236.5	342.4	408.7	391.6	378.8
67.5°	3055.9	2407.4	729.7	194.7	160.5	177.6	230.0	330.6	343.5	329.6	316.7
69°	2920.0	2236.3	583.1	177.6	149.8	170.1	224.7	302.8	308.2	285.7	271.8
70°	2778.7	2096.1	450.5	164.8	141.2	164.8	224.7	290.0	285.7	257.9	246.1
72.5°	2344.3	1630.6	256.8	131.6	113.4	149.8	220.4	267.5	268.6	233.3	216.1
75°	1779.4	1076.4	180.8	97.4	85.6	130.5	194.7	245.0	260.0	225.8	203.3
77.5°	955.5	389.5	131.6	67.4	53.5	96.3	149.8	203.3	227.9	195.8	169.1
80°	282.5	196.9	92.0	47.1	37.4	55.6	98.4	155.1	212.9	203.3	191.5
82.5°	180.8	128.4	62.1	32.1	27.8	31.0	44.9	98.4	171.2	190.5	207.6
85°	50.3	38.5	22.5	13.9	13.9	16.0	16.0	42.8	96.3	133.7	158.4
87.5°	5.3	5.3	5.3	5.3	5.3	5.3	7.5	11.8	17.1	34.2	43.9
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)