

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: P196521

Luminaire Tested: **NAV-AF-03-D-UNV-RW-7030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196521
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24161)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-AF-03-D-UNV-RW-7030-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(3) 70 CRI, 3000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14463.8 lumens
Efficiency: N/A
Efficacy: 116.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B3 - U0 - G3

Input Watts (W): 124
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

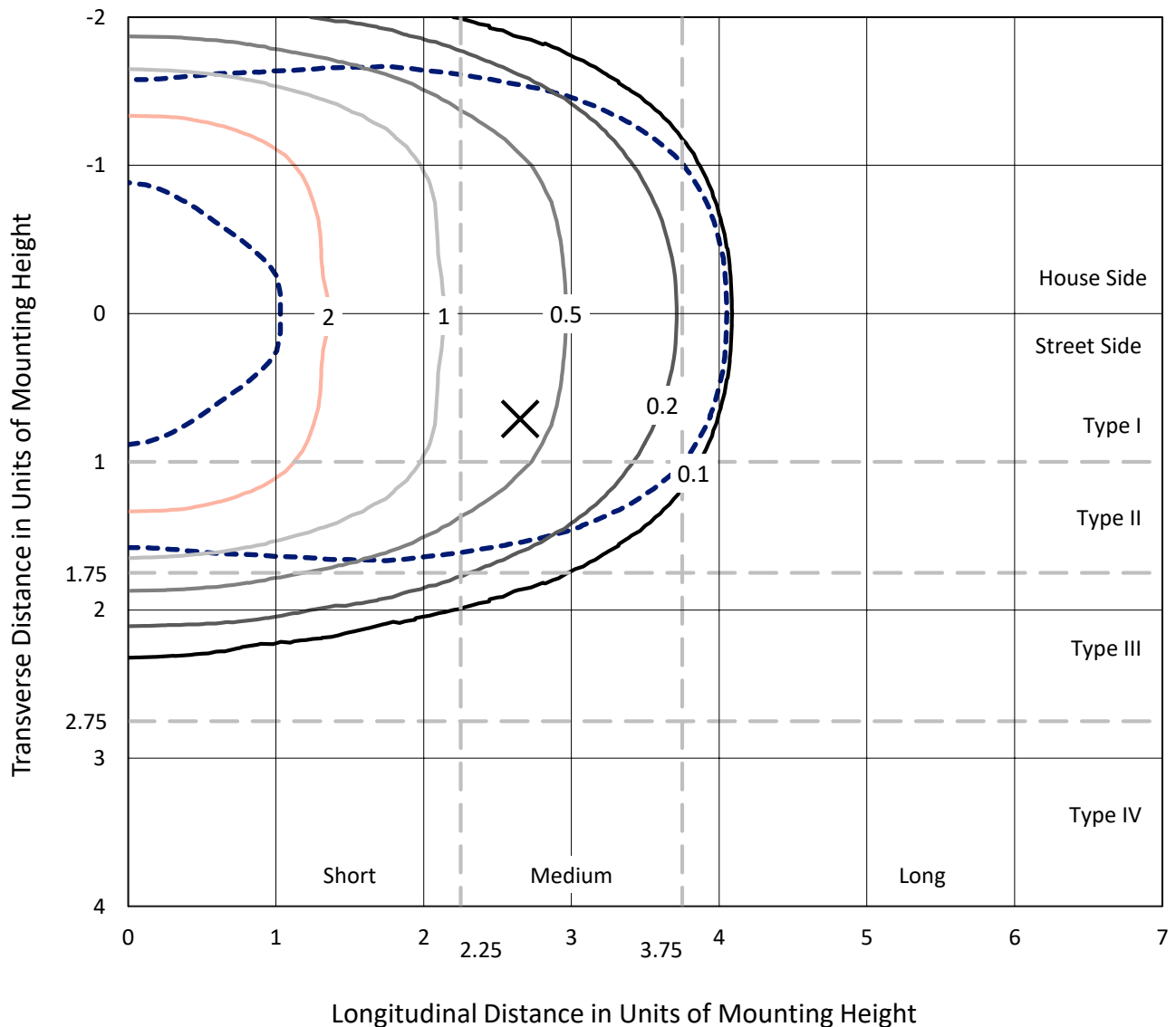


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Iso-Footcandle Lines of Horizontal Illumination

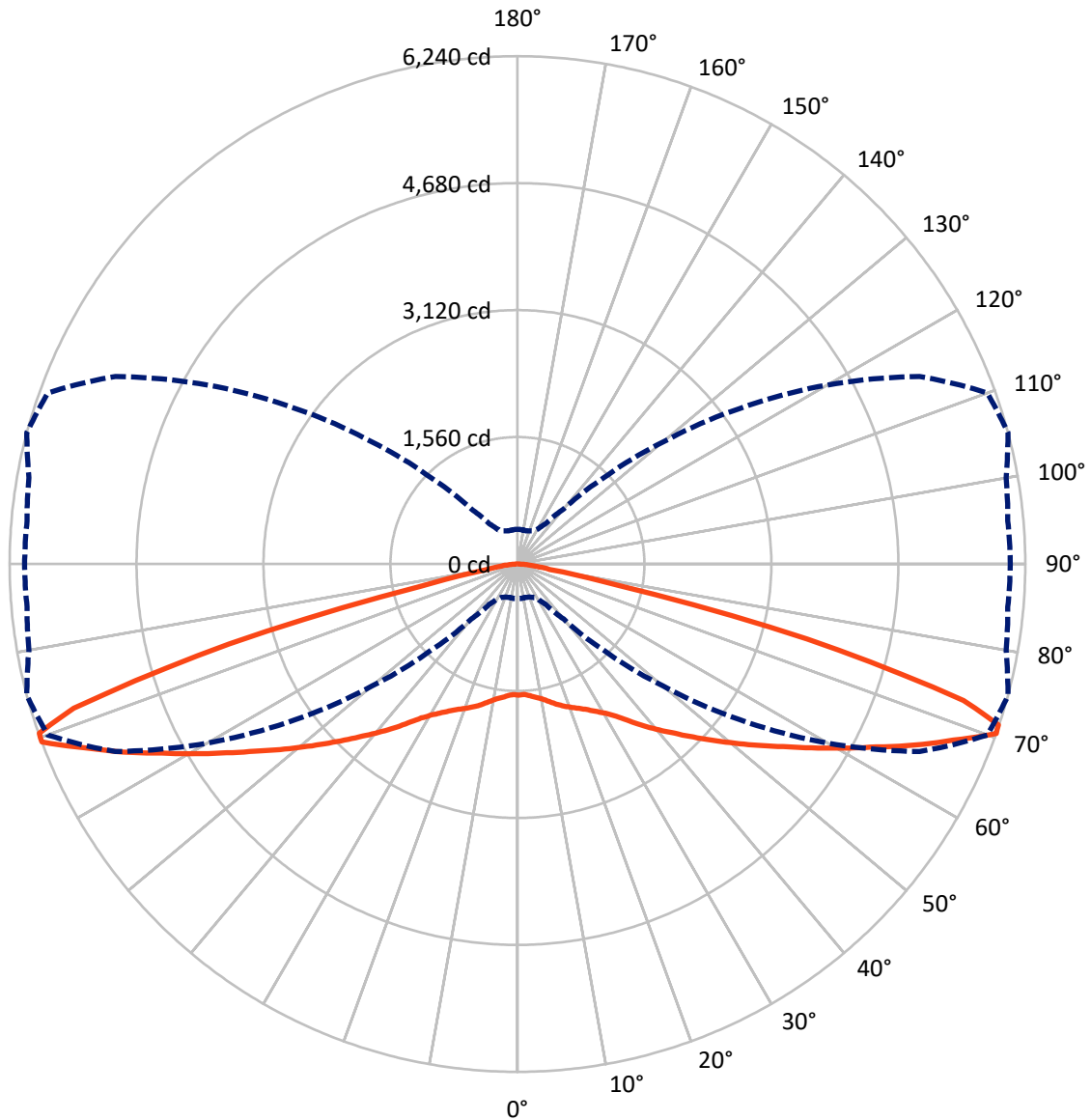
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 4.1 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7231.9	0.0	7231.9
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	7231.9	0.0	7231.9
	% Fixture	50.0	0.0	50.0
Total	Lumens	14463.8	0.0	14463.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	154.5	1.1
10°-20°	479.1	3.3
20°-30°	899.9	6.2
30°-40°	1585.2	11.0
40°-50°	2627.2	18.2
50°-60°	3654.8	25.3
60°-70°	3450.2	23.9
70°-80°	1473.6	10.2
80°-90°	139.2	1.0
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°	14463.8	100.0
0°-180°	14463.8	100.0



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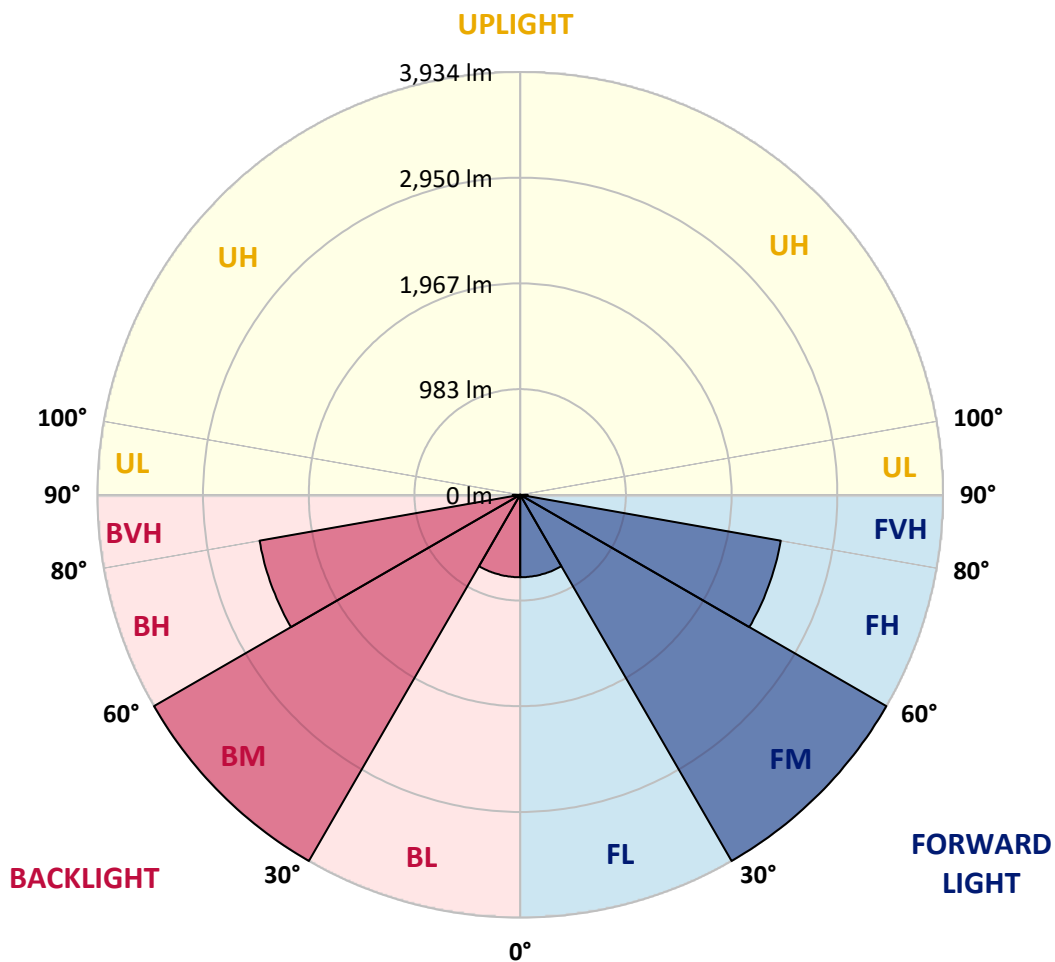
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	766.8	5.3			
FM	(30°-60°)	3933.6	27.2			
FH	(60°-80°)	2461.9	17.0			G2/5000
FVH	(80°-90°)	69.6	0.5			G1/100
BL	(0°-30°)	766.8	5.3	B2/1000		
BM	(30°-60°)	3933.6	27.2	B3/5000		
BH	(60°-80°)	2461.9	17.0	B3/2500		G3/2500
BVH	(80°-90°)	69.6	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1610.7	1610.7	1610.7	1610.7	1610.7	1610.7	1610.7	1610.7	1610.7	1610.7	1610.7
2.5°	1620.7	1619.8	1620.7	1617.9	1618.7	1617.9	1617.9	1614.3	1614.3	1612.4	1609.8
5°	1602.5	1604.4	1604.4	1604.4	1607.1	1607.1	1610.7	1611.6	1614.3	1617.0	1618.7
7.5°	1572.6	1573.6	1576.3	1578.0	1583.5	1590.7	1598.0	1606.1	1613.4	1622.5	1632.5
10°	1547.2	1549.1	1553.5	1558.1	1568.1	1577.1	1589.8	1602.5	1615.2	1630.5	1646.0
12.5°	1533.7	1536.4	1543.7	1550.8	1566.2	1578.0	1595.3	1615.2	1632.5	1647.0	1664.1
15°	1535.4	1536.4	1546.3	1556.3	1578.0	1594.3	1618.7	1642.3	1663.3	1679.6	1699.5
17.5°	1561.8	1563.5	1573.6	1588.0	1608.9	1629.7	1656.1	1680.5	1708.6	1727.6	1751.2
20°	1613.4	1616.2	1627.0	1642.3	1665.1	1686.9	1714.1	1739.4	1768.4	1791.1	1814.6
22.5°	1680.5	1685.0	1696.8	1715.8	1738.6	1764.7	1792.8	1819.1	1846.4	1869.0	1889.0
25°	1770.2	1775.7	1788.3	1807.3	1830.0	1858.2	1887.1	1914.3	1942.4	1959.7	1976.0
27.5°	1890.7	1899.8	1913.4	1928.9	1948.7	1978.6	2005.9	2028.5	2055.7	2074.8	2085.6
30°	2053.0	2065.6	2076.6	2092.9	2107.4	2139.1	2160.8	2178.9	2199.8	2210.8	2213.5
32.5°	2251.5	2263.3	2274.1	2285.9	2305.9	2334.9	2355.7	2365.7	2376.6	2374.8	2364.8
35°	2475.4	2484.4	2490.8	2511.7	2544.3	2563.3	2578.7	2582.4	2584.2	2565.1	2546.1
37.5°	2711.0	2721.9	2727.3	2760.0	2790.8	2812.6	2819.9	2827.9	2822.5	2790.8	2756.4
40°	2965.8	2977.6	2993.8	3022.0	3058.1	3079.0	3088.1	3087.2	3082.6	3045.5	2989.4
42.5°	3215.9	3230.5	3244.0	3293.0	3322.9	3358.2	3362.8	3361.8	3351.8	3309.3	3244.0
45°	3428.0	3445.3	3473.4	3527.8	3575.7	3618.3	3635.6	3641.9	3632.0	3586.7	3512.3
47.5°	3603.0	3614.8	3650.2	3716.2	3777.8	3840.5	3874.9	3899.4	3898.5	3865.8	3786.9
50°	3722.6	3736.2	3779.8	3854.0	3931.0	4004.5	4072.4	4127.9	4154.0	4130.4	4057.1
52.5°	3757.0	3774.3	3831.4	3920.2	4010.0	4108.7	4210.2	4308.1	4367.1	4381.6	4324.5
55°	3612.0	3631.0	3714.5	3837.7	3985.4	4131.4	4285.4	4425.1	4546.5	4602.8	4580.0
57.5°	3189.6	3203.3	3309.3	3468.8	3680.0	3936.5	4195.8	4451.3	4659.8	4805.8	4831.1
60°	2522.5	2539.7	2655.8	2824.4	3064.5	3389.0	3751.6	4170.3	4579.2	4913.6	5079.5
62.5°	1702.3	1714.1	1825.5	1979.6	2242.4	2555.1	2959.4	3489.6	4072.4	4669.7	5137.5
65°	893.7	893.7	968.9	1076.9	1286.2	1566.2	1980.6	2524.3	3217.6	3963.7	4745.9
67.5°	518.4	517.6	534.9	559.3	625.4	738.7	967.2	1366.9	2023.1	2891.4	3781.5
70°	427.9	425.1	422.4	422.4	432.3	449.6	493.1	602.8	881.9	1491.1	2326.7
71°	408.7	407.0	399.7	397.0	401.5	410.6	429.6	480.4	626.3	1016.9	1737.5
72.5°	386.1	381.7	370.7	366.2	367.1	370.7	376.2	396.1	440.6	578.3	990.7
75°	351.7	340.8	327.2	320.9	318.2	317.3	317.3	322.7	332.7	349.0	406.1
77.5°	311.8	296.4	281.9	275.6	271.0	268.3	266.5	262.9	261.0	268.3	289.1
80°	263.8	247.5	235.7	232.0	229.3	223.9	216.7	209.3	204.9	208.4	221.1
82.5°	204.0	187.6	189.4	190.3	185.8	176.8	169.5	161.3	153.2	151.4	157.7
85°	162.2	154.0	148.7	160.4	150.4	139.7	129.6	116.1	97.0	79.8	87.0
87.5°	69.8	70.7	101.5	153.2	134.2	107.8	89.7	72.5	46.2	34.4	35.4
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°	1610.7	1610.7	1610.7	1610.7	1610.7	1610.7	1610.7	1610.7
2.5°	1608.9	1608.9	1606.1	1604.4	1604.4	1604.4	1602.5	1603.4
5°	1619.8	1621.5	1623.4	1622.5	1625.2	1627.9	1627.0	1626.1
7.5°	1637.9	1643.3	1648.7	1651.5	1655.1	1658.7	1659.6	1656.9
10°	1656.1	1666.9	1675.1	1682.3	1686.9	1690.5	1693.2	1692.2
12.5°	1678.7	1694.1	1708.6	1723.0	1733.1	1738.6	1743.9	1742.1
15°	1715.8	1733.1	1751.2	1770.2	1785.7	1793.8	1801.9	1800.1
17.5°	1766.6	1782.0	1796.4	1815.6	1834.6	1843.6	1852.7	1851.8
20°	1830.0	1841.8	1850.0	1860.8	1878.9	1889.0	1897.1	1894.3
22.5°	1902.5	1906.1	1907.1	1910.7	1925.1	1936.9	1947.9	1950.6
25°	1981.4	1978.6	1973.2	1970.5	1980.6	1993.2	2006.8	2010.4
27.5°	2079.3	2070.3	2056.6	2045.8	2048.5	2064.8	2080.2	2083.8
30°	2202.5	2181.7	2152.7	2131.8	2128.3	2145.5	2161.8	2167.1
32.5°	2343.1	2314.9	2275.1	2243.3	2229.8	2245.2	2259.7	2267.7
35°	2509.8	2479.0	2431.0	2390.1	2368.4	2378.3	2403.8	2412.9
37.5°	2707.5	2664.9	2611.3	2559.7	2523.5	2525.2	2552.4	2563.3
40°	2925.9	2864.2	2796.3	2731.9	2679.4	2675.6	2700.2	2708.3
42.5°	3153.3	3074.5	2994.8	2910.4	2845.2	2833.4	2865.1	2866.1
45°	3398.1	3296.6	3197.8	3099.9	3032.0	3011.0	3041.9	3045.5
47.5°	3659.2	3532.3	3415.3	3309.3	3235.8	3203.3	3233.1	3238.6
50°	3931.0	3799.6	3663.7	3545.9	3459.7	3419.9	3455.3	3458.8
52.5°	4200.3	4076.1	3941.1	3805.9	3701.7	3656.5	3698.1	3710.8
55°	4471.3	4351.7	4224.7	4089.7	3958.3	3918.4	3963.7	3977.2
57.5°	4753.3	4638.0	4523.0	4387.0	4259.2	4198.5	4247.5	4266.5
60°	5064.0	4962.5	4853.9	4716.9	4591.0	4520.3	4561.9	4583.7
62.5°	5369.5	5348.7	5249.9	5107.6	4948.1	4877.4	4912.8	4928.1
65°	5394.9	5733.1	5728.5	5587.1	5364.1	5245.3	5255.4	5262.6
67.5°	4708.7	5484.6	5980.5	6024.9	5776.5	5590.7	5569.0	5573.5
70°	3333.7	4398.8	5451.2	6141.8	6239.7	6095.6	6048.5	6055.7
71°	2671.2	3774.3	4932.6	5861.8	6232.4	6190.7	6164.4	6183.5
72.5°	1705.0	2780.8	3908.4	5019.7	5731.2	5935.2	5965.0	5976.8
75°	619.1	1196.5	2024.9	2901.4	3677.2	4211.2	4504.9	4528.4
77.5°	332.7	428.8	662.5	989.8	1243.6	1379.5	1395.9	1402.3
80°	244.7	283.7	324.5	370.7	399.7	405.2	395.2	374.3
82.5°	173.1	195.8	212.1	228.5	240.2	230.2	191.2	146.0
85°	100.6	110.6	119.6	127.9	129.6	122.4	80.7	66.2
87.5°	39.9	43.4	42.6	48.1	46.2	42.6	31.6	27.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)