

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: P197013

Luminaire Tested: **NAV-AF-03-D-UNV-RW-8030-1200**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P197013  
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-8030-1200  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(3) 80 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 16569 lumens  
Efficiency: N/A  
Efficacy: 86.7 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')  
IES Classification: Type II - Medium - Full Cutoff  
BUG Rating: B4 - U0 - G4

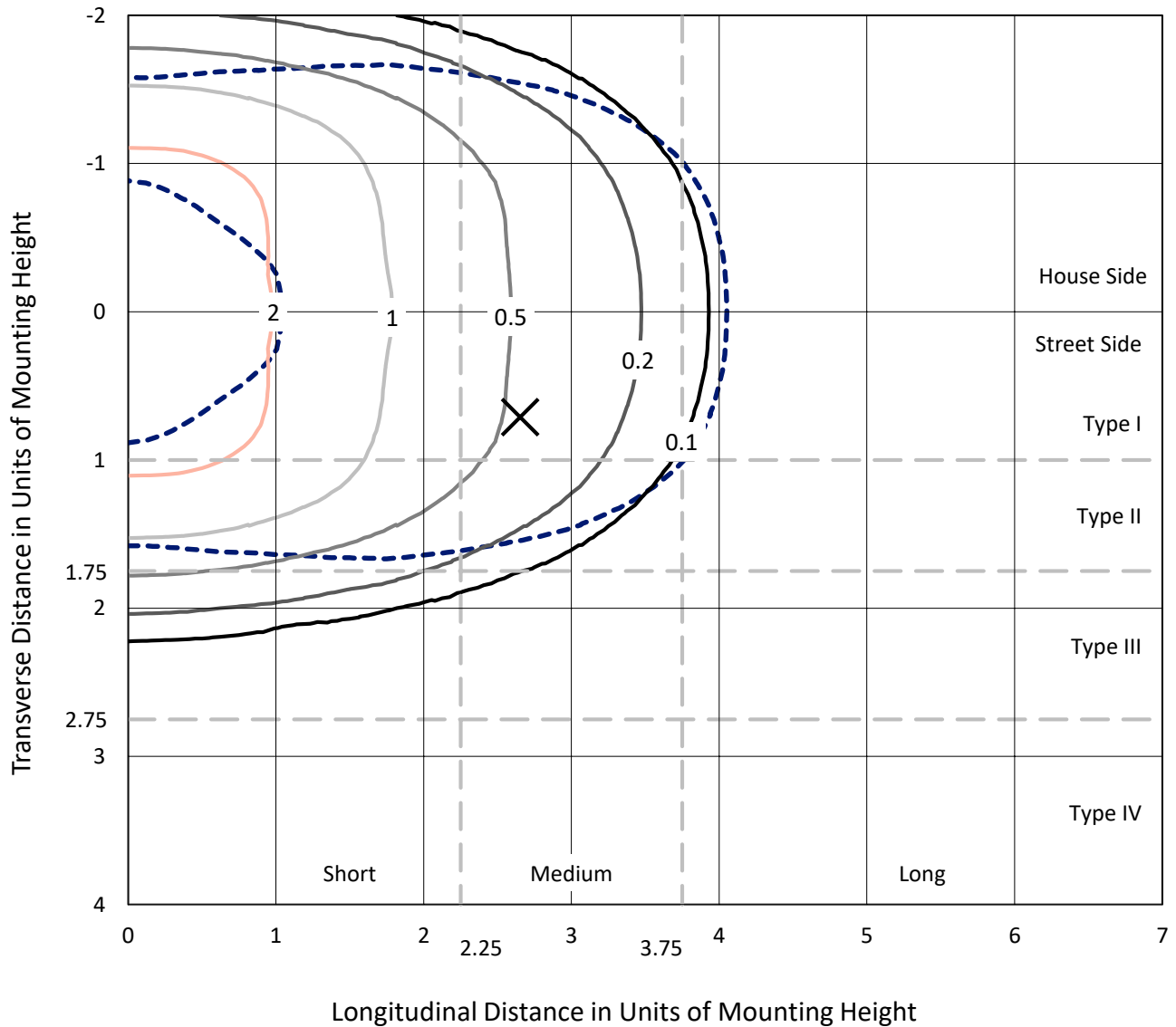
Input Watts (W): 191  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

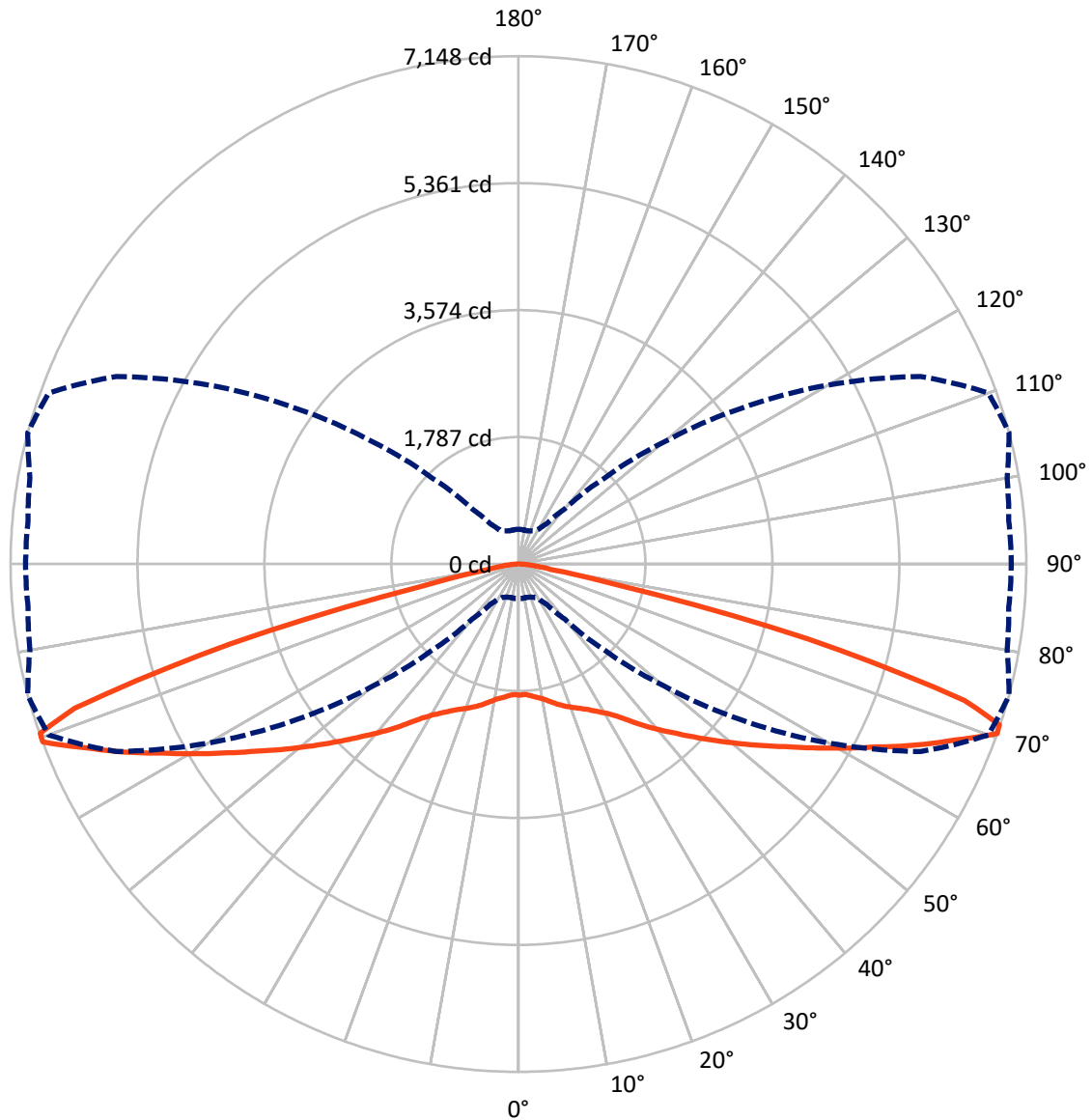
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3 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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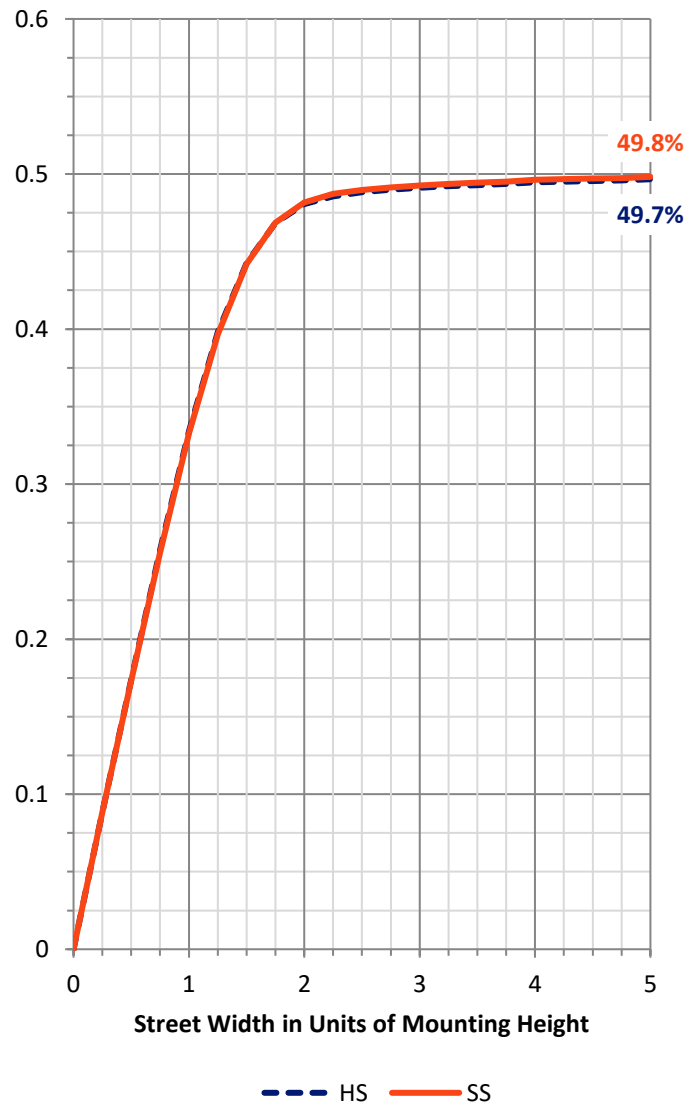
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	8284.5	0.0	8284.5
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	8284.5	0.0	8284.5
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	16569.0	0.0	16569.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	177.0	1.1
10°-20°	548.9	3.3
20°-30°	1030.9	6.2
30°-40°	1815.9	11.0
40°-50°	3009.6	18.2
50°-60°	4186.8	25.3
60°-70°	3952.4	23.9
70°-80°	1688.1	10.2
80°-90°	159.5	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°	16569.0	100.0
0°-180°	16569.0	100.0

**Coefficient of Utilization**



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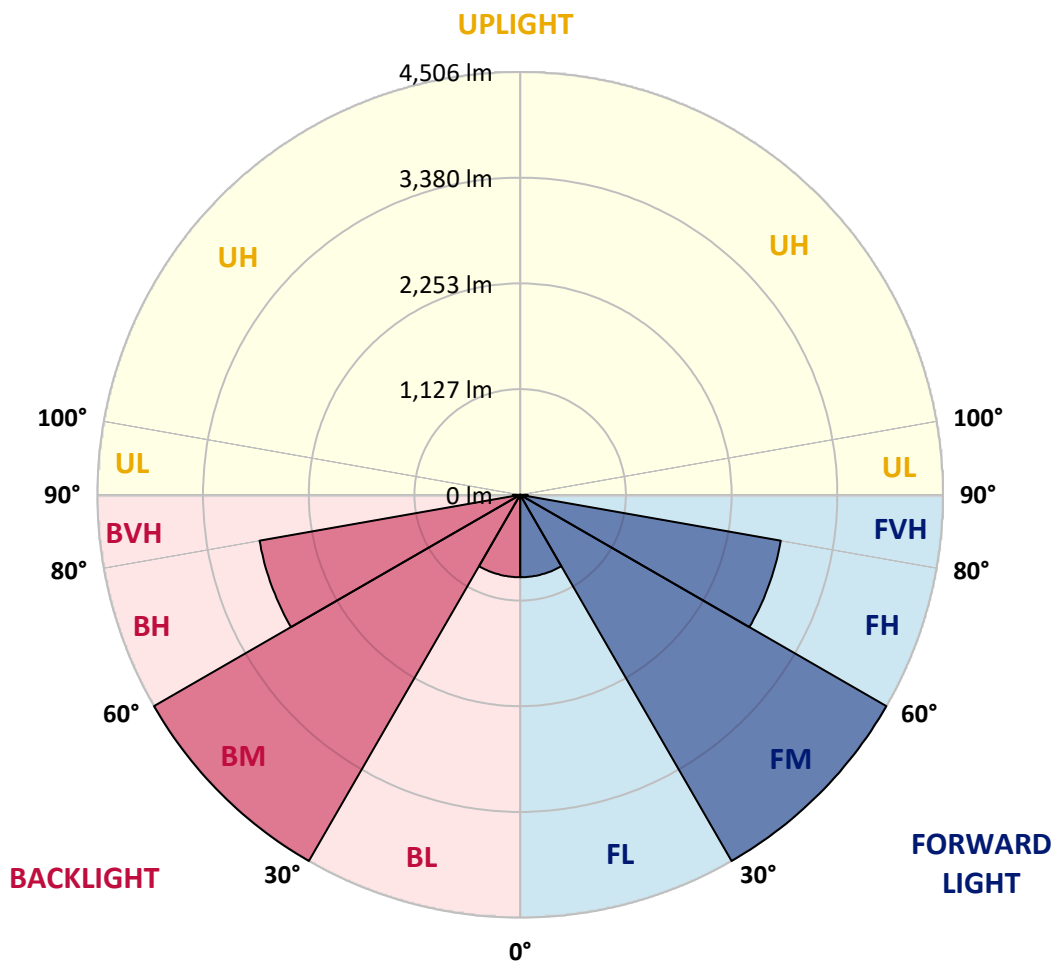
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	878.4	5.3			
FM (30°-60°)	4506.1	27.2			
FH (60°-80°)	2820.2	17.0			G2/5000
FVH (80°-90°)	79.8	0.5			G1/100
BL (0°-30°)	878.4	5.3	B2/1000		
BM (30°-60°)	4506.1	27.2	B3/5000		
BH (60°-80°)	2820.2	17.0	B4/5000		G4/5000
BVH (80°-90°)	79.8	0.5			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G4**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1845.1	1845.1	1845.1	1845.1	1845.1	1845.1	1845.1	1845.1	1845.1	1845.1	1845.1
2.5°	1856.5	1855.5	1856.5	1853.4	1854.5	1853.4	1853.4	1849.3	1849.3	1847.2	1844.1
5°	1835.8	1837.9	1837.9	1837.9	1841.0	1841.0	1845.1	1846.2	1849.3	1852.4	1854.5
7.5°	1801.5	1802.5	1805.7	1807.7	1814.0	1822.3	1830.6	1839.9	1848.2	1858.6	1870.0
10°	1772.4	1774.5	1779.7	1784.9	1796.3	1806.7	1821.2	1835.8	1850.3	1868.0	1885.6
12.5°	1756.9	1760.0	1768.3	1776.6	1794.2	1807.7	1827.5	1850.3	1870.0	1886.7	1906.4
15°	1758.9	1760.0	1771.4	1782.8	1807.7	1826.4	1854.5	1881.5	1905.3	1924.0	1946.9
17.5°	1789.0	1791.1	1802.5	1819.2	1843.0	1866.9	1897.0	1925.1	1957.3	1979.1	2006.1
20°	1848.2	1851.3	1863.8	1881.5	1907.4	1932.3	1963.5	1992.6	2025.8	2051.7	2078.7
22.5°	1925.1	1930.3	1943.8	1965.6	1991.5	2021.6	2053.8	2083.9	2115.1	2141.0	2163.9
25°	2027.9	2034.1	2048.6	2070.4	2096.4	2128.6	2161.8	2193.0	2225.2	2244.9	2263.6
27.5°	2166.0	2176.3	2191.9	2209.6	2232.4	2266.7	2297.8	2323.8	2354.9	2376.7	2389.2
30°	2351.8	2366.4	2378.8	2397.5	2414.1	2450.5	2475.4	2496.2	2520.0	2532.5	2535.6
32.5°	2579.2	2592.7	2605.2	2618.7	2641.5	2674.7	2698.6	2710.1	2722.5	2720.4	2709.0
35°	2835.7	2846.1	2853.3	2877.2	2914.6	2936.4	2954.1	2958.2	2960.3	2938.5	2916.7
37.5°	3105.7	3118.1	3124.3	3161.7	3197.0	3222.0	3230.3	3239.6	3233.4	3197.0	3157.6
40°	3397.4	3410.9	3429.6	3461.8	3503.3	3527.2	3537.6	3536.6	3531.4	3488.8	3424.4
42.5°	3684.0	3700.6	3716.2	3772.3	3806.5	3847.0	3852.2	3851.2	3839.8	3791.0	3716.2
45°	3927.0	3946.7	3978.9	4041.2	4096.2	4145.0	4164.8	4172.0	4160.6	4108.7	4023.5
47.5°	4127.4	4140.9	4181.4	4257.2	4327.8	4399.4	4438.9	4466.9	4465.9	4428.5	4338.2
50°	4264.4	4280.0	4329.9	4415.0	4503.3	4587.4	4665.2	4728.6	4758.7	4731.7	4647.6
52.5°	4303.9	4323.6	4389.0	4490.8	4593.6	4706.8	4823.1	4935.2	5002.7	5019.3	4953.9
55°	4137.8	4159.6	4255.1	4396.3	4565.6	4732.7	4909.2	5069.1	5208.3	5272.7	5246.7
57.5°	3653.9	3669.5	3791.0	3973.7	4215.6	4509.5	4806.4	5099.3	5338.1	5505.2	5534.3
60°	2889.7	2909.4	3042.3	3235.4	3510.6	3882.3	4297.7	4777.4	5245.7	5628.8	5818.8
62.5°	1950.0	1963.5	2091.2	2267.7	2568.8	2927.1	3390.2	3997.6	4665.2	5349.5	5885.3
65°	1023.8	1023.8	1110.0	1233.5	1473.4	1794.2	2268.8	2891.8	3686.1	4540.6	5436.7
67.5°	593.9	592.9	612.6	640.7	716.5	846.2	1107.9	1565.8	2317.6	3312.3	4331.9
70°	490.1	487.0	483.9	483.9	495.3	515.0	564.9	690.5	1010.3	1708.1	2665.4
71°	468.3	466.2	457.9	454.8	460.0	470.4	492.2	550.3	717.5	1165.0	1990.5
72.5°	442.3	437.1	424.7	419.5	420.5	424.7	430.9	453.8	504.6	662.5	1134.9
75°	402.9	390.4	374.8	367.6	364.5	363.4	363.4	369.6	381.1	399.8	465.2
77.5°	357.2	339.5	322.9	315.7	310.5	307.3	305.3	301.1	299.0	307.3	331.2
80°	302.2	283.5	270.0	265.8	262.7	256.5	248.2	239.9	234.7	238.8	253.4
82.5°	233.6	214.9	217.0	218.1	212.9	202.5	194.2	184.8	175.5	173.4	180.7
85°	185.9	176.5	170.3	183.8	172.4	159.9	148.5	132.9	111.1	91.4	99.7
87.5°	80.0	81.0	116.3	175.5	153.7	123.6	102.8	83.1	53.0	39.5	40.5
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°	1845.1	1845.1	1845.1	1845.1	1845.1	1845.1	1845.1	1845.1
2.5°	1843.0	1843.0	1839.9	1837.9	1837.9	1837.9	1835.8	1836.8
5°	1855.5	1857.6	1859.7	1858.6	1861.7	1864.8	1863.8	1862.8
7.5°	1876.3	1882.5	1888.7	1891.8	1896.0	1900.2	1901.2	1898.1
10°	1897.0	1909.5	1918.8	1927.1	1932.3	1936.5	1939.6	1938.6
12.5°	1923.0	1940.6	1957.3	1973.9	1985.3	1991.5	1997.8	1995.7
15°	1965.6	1985.3	2006.1	2027.9	2045.5	2054.9	2064.2	2062.1
17.5°	2023.7	2041.4	2058.0	2079.8	2101.6	2112.0	2122.4	2121.3
20°	2096.4	2109.9	2119.2	2131.7	2152.5	2163.9	2173.2	2170.1
22.5°	2179.5	2183.6	2184.7	2188.8	2205.4	2218.9	2231.4	2234.5
25°	2269.8	2266.7	2260.5	2257.3	2268.8	2283.3	2298.9	2303.0
27.5°	2381.9	2371.6	2356.0	2343.5	2346.6	2365.3	2383.0	2387.1
30°	2523.2	2499.3	2466.0	2442.2	2438.0	2457.7	2476.4	2482.7
32.5°	2684.1	2651.9	2606.2	2569.9	2554.3	2572.0	2588.6	2597.9
35°	2875.1	2839.8	2784.8	2738.1	2713.2	2724.6	2753.7	2764.0
37.5°	3101.5	3052.7	2991.4	2932.3	2890.7	2892.8	2923.9	2936.4
40°	3351.7	3281.1	3203.3	3129.5	3069.3	3065.2	3093.2	3102.5
42.5°	3612.4	3522.0	3430.7	3334.1	3259.3	3245.8	3282.2	3283.2
45°	3892.7	3776.4	3663.2	3551.1	3473.2	3449.3	3484.6	3488.8
47.5°	4191.8	4046.4	3912.4	3791.0	3706.9	3669.5	3703.7	3710.0
50°	4503.3	4352.7	4196.9	4062.0	3963.3	3917.6	3958.1	3962.3
52.5°	4811.6	4669.4	4514.7	4360.0	4240.6	4188.6	4236.4	4250.9
55°	5122.1	4985.0	4839.7	4685.0	4534.4	4488.7	4540.6	4556.2
57.5°	5445.0	5313.2	5181.3	5025.5	4879.1	4809.6	4865.6	4887.4
60°	5801.2	5684.9	5560.3	5403.5	5259.2	5178.2	5225.9	5250.9
62.5°	6151.1	6127.2	6014.0	5851.0	5668.3	5587.3	5627.8	5645.4
65°	6180.2	6567.5	6562.3	6400.3	6144.9	6008.8	6020.3	6028.6
67.5°	5394.1	6283.0	6850.9	6901.8	6617.3	6404.4	6379.5	6384.7
70°	3819.0	5039.0	6244.5	7035.8	7147.9	6982.8	6928.8	6937.1
71°	3060.0	4323.6	5650.6	6714.9	7139.6	7091.8	7061.7	7083.5
72.5°	1953.1	3185.6	4477.3	5750.3	6565.4	6799.0	6833.3	6846.8
75°	709.2	1370.6	2319.6	3323.7	4212.5	4824.1	5160.5	5187.5
77.5°	381.1	491.1	759.0	1133.9	1424.6	1580.3	1599.0	1606.3
80°	280.4	325.0	371.7	424.7	457.9	464.1	452.7	428.8
82.5°	198.3	224.3	243.0	261.7	275.2	263.7	219.1	167.2
85°	115.3	126.7	137.1	146.4	148.5	140.2	92.4	75.8
87.5°	45.7	49.8	48.8	55.0	53.0	48.8	36.3	31.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)