

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: P299722

Luminaire Tested: **GLNA-AF-05-LED-E1-5MQ-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299722
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24142)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-05-LED-E1-5MQ-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20518.2 lumens
Efficiency: N/A
Efficacy: 126.7 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B4 - U0 - G2

Input Watts (W): 162
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

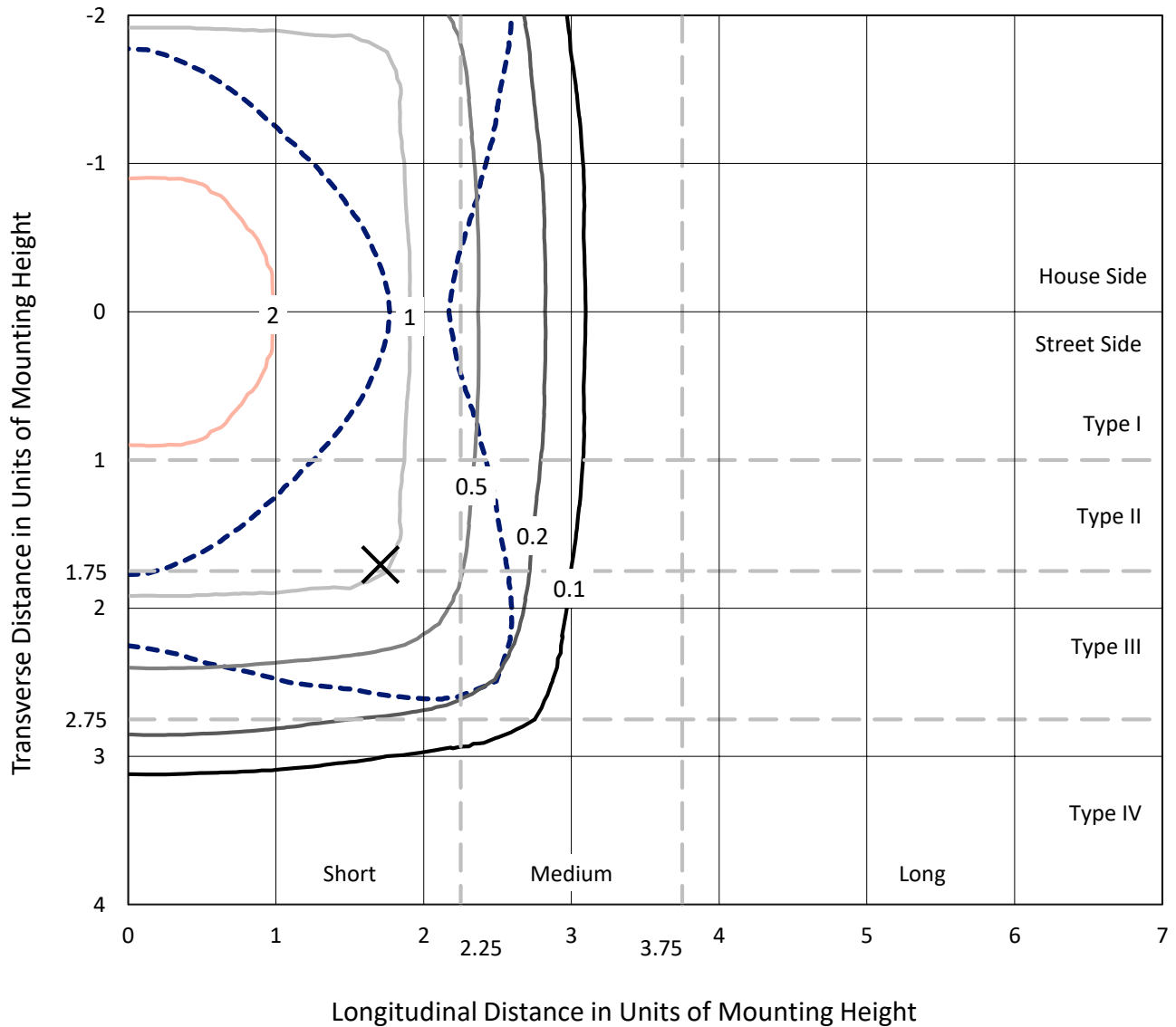


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

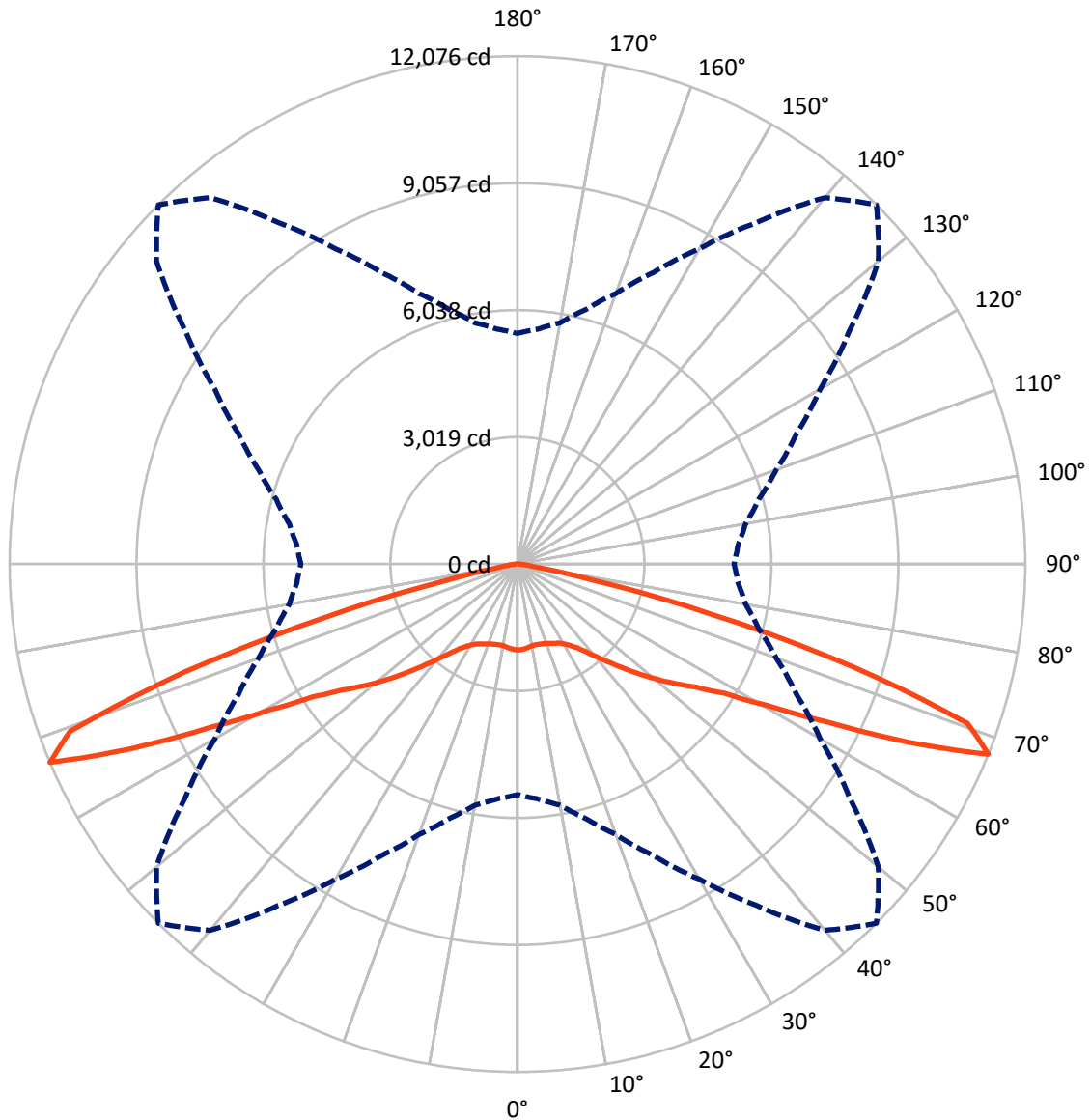


Based on 25 foot mounting height. Maximum calculated value = 3.3 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10259.1	0.0	10259.1
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	10259.1	0.0	10259.1
	% Fixture	50.0	0.0	50.0
Total	Lumens	20518.2	0.0	20518.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	191.4	0.9
10°-20°	555.3	2.7
20°-30°	944.1	4.6
30°-40°	1543.3	7.5
40°-50°	2755.0	13.4
50°-60°	4645.0	22.6
60°-70°	7208.3	35.1
70°-80°	2532.7	12.3
80°-90°	143.1	0.7
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°	20518.2	100.0
0°-180°	20518.2	100.0



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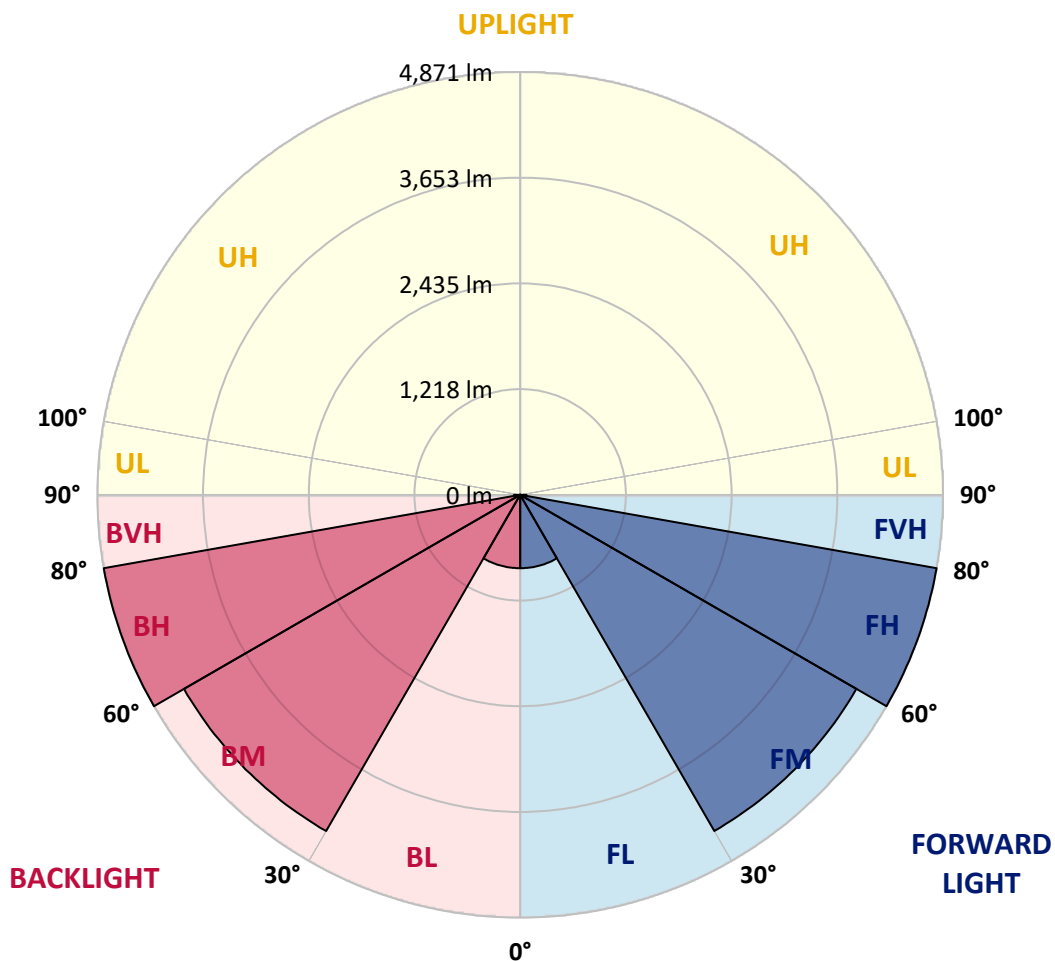
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	845.4	4.1			
FM	(30°-60°)	4471.6	21.8			
FH	(60°-80°)	4870.5	23.7			G2/5000
FVH	(80°-90°)	71.6	0.3			G1/100
BL	(0°-30°)	845.4	4.1	B2/1000		
BM	(30°-60°)	4471.6	21.8	B3/5000		
BH	(60°-80°)	4870.5	23.7	B4/5000		G2/5000
BVH	(80°-90°)	71.6	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G2

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2044.7	2044.7	2044.7	2044.7	2044.7	2044.7	2044.7	2044.7	2044.7	2044.7	2044.7
2.5°	2037.2	2039.1	2039.1	2039.1	2038.1	2038.1	2036.2	2038.1	2037.2	2034.3	2035.3
5°	2020.2	2022.1	2022.1	2021.1	2024.0	2023.0	2020.2	2022.1	2021.1	2019.2	2020.2
7.5°	1995.7	1998.5	1998.5	1997.5	2000.4	1999.4	1997.5	1998.5	1998.5	1995.7	1995.7
10°	1968.3	1970.2	1970.2	1969.2	1974.0	1974.0	1973.0	1975.8	1976.8	1974.0	1972.1
12.5°	1942.8	1945.6	1945.6	1949.4	1954.1	1956.0	1960.7	1964.5	1968.3	1967.3	1963.6
15°	1927.7	1929.6	1933.4	1938.1	1945.6	1952.3	1959.8	1968.3	1975.8	1977.7	1972.1
17.5°	1918.3	1921.1	1926.8	1933.4	1943.8	1955.1	1966.4	1977.7	1988.1	1991.9	1985.3
20°	1915.5	1917.3	1923.0	1934.3	1948.5	1965.5	1981.5	1994.7	2008.9	2013.6	2008.9
22.5°	1921.1	1924.9	1931.5	1944.7	1963.6	1985.3	2004.1	2022.1	2040.0	2048.5	2041.9
25°	1946.6	1950.4	1958.9	1975.8	1996.6	2019.2	2040.9	2061.7	2077.7	2086.2	2081.5
27.5°	1993.8	1998.5	2008.9	2025.9	2048.5	2073.0	2096.6	2113.6	2126.8	2129.6	2124.0
30°	2064.5	2074.9	2087.2	2106.1	2132.5	2153.2	2176.8	2191.9	2208.0	2208.0	2203.2
32.5°	2174.9	2185.3	2198.5	2216.5	2237.2	2259.9	2280.6	2293.8	2310.8	2311.8	2300.4
35°	2340.1	2344.8	2356.1	2367.4	2386.3	2406.1	2424.0	2432.5	2446.7	2447.6	2437.2
37.5°	2558.0	2559.0	2566.5	2570.3	2587.3	2609.0	2626.0	2631.6	2644.8	2642.9	2632.6
40°	2811.8	2816.6	2819.4	2825.1	2843.0	2863.7	2881.7	2884.5	2898.7	2895.8	2882.6
42.5°	3105.3	3107.2	3123.2	3131.7	3148.7	3159.1	3181.7	3184.6	3201.5	3194.0	3178.9
45°	3434.6	3451.6	3466.7	3483.7	3501.6	3513.9	3531.8	3528.0	3539.3	3528.0	3519.5
47.5°	3780.9	3793.2	3827.1	3853.6	3882.8	3893.2	3918.7	3907.3	3918.7	3902.6	3899.8
50°	4162.1	4183.8	4213.1	4243.2	4274.4	4291.4	4324.4	4310.2	4325.3	4310.2	4301.7
52.5°	4537.6	4543.3	4607.5	4651.8	4695.2	4715.0	4734.8	4728.2	4729.2	4728.2	4719.8
55°	4894.3	4907.5	4971.7	5032.1	5107.6	5163.2	5197.2	5193.4	5184.9	5176.4	5162.3
57.5°	5296.3	5309.5	5383.1	5457.6	5543.5	5622.8	5691.6	5762.4	5789.8	5797.3	5766.2
60°	5839.8	5838.8	5937.0	6027.5	6150.2	6268.2	6419.1	6572.9	6749.4	6831.5	6723.0
62.5°	6392.7	6415.4	6556.9	6717.3	6970.2	7216.4	7494.8	7768.4	8047.7	8275.1	8033.6
65°	6326.7	6413.5	6623.9	6987.2	7454.2	8009.0	8609.2	9244.2	9817.9	10212.3	9769.8
67.5°	5483.1	5606.7	5820.9	6262.5	6846.6	7646.7	8654.4	9910.3	11370.1	12075.8	11201.2
70°	3974.3	4114.0	4338.5	4769.8	5348.2	6108.7	7203.2	8711.1	10643.5	11355.0	10391.6
72.5°	1977.7	2053.2	2191.9	2466.5	2904.3	3521.4	4514.1	5963.4	7673.1	8326.1	7445.7
75°	671.8	706.7	730.3	820.0	958.7	1201.2	1694.7	2607.1	3977.2	4767.9	3920.5
77.5°	387.8	388.8	404.8	420.8	444.4	470.8	536.9	704.8	1219.1	1731.5	1261.6
80°	251.0	250.0	263.3	275.5	291.6	304.8	308.5	326.5	376.5	446.3	399.1
82.5°	130.2	146.3	175.5	191.5	221.7	227.4	219.9	213.2	225.5	234.0	239.7
85°	71.7	62.3	93.4	120.8	134.0	135.9	135.9	128.3	133.0	130.2	141.5
87.5°	33.0	30.2	36.8	59.4	63.2	53.8	56.6	50.0	35.9	34.9	39.6
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°	2044.7	2044.7	2044.7	2044.7	2044.7	2044.7	2044.7	2044.7
2.5°	2035.3	2036.2	2036.2	2039.1	2040.0	2041.9	2043.8	2044.7
5°	2019.2	2022.1	2020.2	2023.0	2023.0	2024.9	2024.9	2025.9
7.5°	1995.7	1998.5	1998.5	1998.5	1997.5	2000.4	2000.4	2000.4
10°	1971.1	1973.0	1972.1	1970.2	1968.3	1971.1	1970.2	1969.2
12.5°	1963.6	1958.9	1955.1	1953.2	1949.4	1950.4	1947.5	1947.5
15°	1968.3	1959.8	1953.2	1950.4	1946.6	1944.7	1942.8	1943.8
17.5°	1980.6	1970.2	1961.7	1957.0	1952.3	1949.4	1945.6	1946.6
20°	2002.3	1990.0	1977.7	1968.3	1959.8	1955.1	1952.3	1951.3
22.5°	2034.3	2016.4	1998.5	1984.3	1973.0	1966.4	1963.6	1961.7
25°	2071.1	2051.3	2030.6	2014.5	2003.2	1994.7	1989.1	1989.1
27.5°	2117.4	2101.3	2082.5	2063.6	2053.2	2044.7	2040.9	2039.1
30°	2194.8	2179.7	2164.6	2146.6	2133.4	2124.9	2118.3	2112.7
32.5°	2293.8	2281.6	2269.3	2256.1	2243.8	2232.5	2222.1	2217.4
35°	2433.5	2424.0	2415.5	2400.4	2395.7	2389.1	2383.5	2378.7
37.5°	2626.0	2622.2	2622.2	2606.1	2602.4	2599.5	2593.9	2594.8
40°	2878.8	2882.6	2877.9	2872.2	2869.4	2861.9	2861.9	2868.5
42.5°	3178.0	3180.8	3191.2	3181.7	3192.1	3182.7	3177.0	3181.7
45°	3525.2	3535.6	3556.3	3546.9	3553.5	3537.5	3517.6	3518.6
47.5°	3914.9	3924.3	3932.8	3926.2	3927.2	3900.7	3874.3	3867.7
50°	4319.7	4323.5	4328.2	4318.7	4320.6	4291.4	4261.2	4262.1
52.5°	4719.8	4737.7	4756.6	4731.1	4725.4	4692.4	4649.9	4632.9
55°	5177.4	5202.9	5181.2	5136.8	5092.5	5048.1	4992.4	4983.0
57.5°	5741.6	5698.2	5630.3	5546.3	5485.0	5422.7	5366.1	5342.5
60°	6526.7	6363.5	6240.8	6116.2	6037.9	5961.5	5887.0	5875.6
62.5°	7636.3	7354.2	7109.8	6852.2	6641.8	6477.6	6346.5	6309.7
65°	9027.2	8360.1	7781.6	7241.9	6773.0	6419.1	6196.4	6098.3
67.5°	9625.4	8308.2	7316.5	6550.3	5937.0	5508.6	5268.0	5148.1
70°	8458.2	6890.0	5811.5	5044.3	4485.7	4029.1	3811.1	3682.8
72.5°	5819.0	4382.9	3465.7	2828.8	2382.5	2000.4	1849.4	1838.1
75°	2612.8	1730.5	1192.7	919.0	773.7	672.8	641.6	618.0
77.5°	731.3	540.7	482.2	451.0	420.8	385.9	372.7	375.5
80°	355.7	335.9	322.7	302.9	275.5	246.3	233.1	238.7
82.5°	235.9	233.1	241.6	227.4	187.8	159.5	134.0	122.7
85°	143.4	145.3	148.1	149.1	126.4	88.7	60.4	67.9
87.5°	56.6	65.1	70.8	73.6	68.9	42.5	34.0	34.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)