

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: P299344

Luminaire Tested: **GLNA-AF-02-LED-E1-5NQ**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299344  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24141)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-02-LED-E1-5NQ  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(2) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II  
w/Spill Control OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 12519 lumens  
Efficiency: N/A  
Efficacy: 110.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B3 - U0 - G2

Input Watts (W): 113  
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

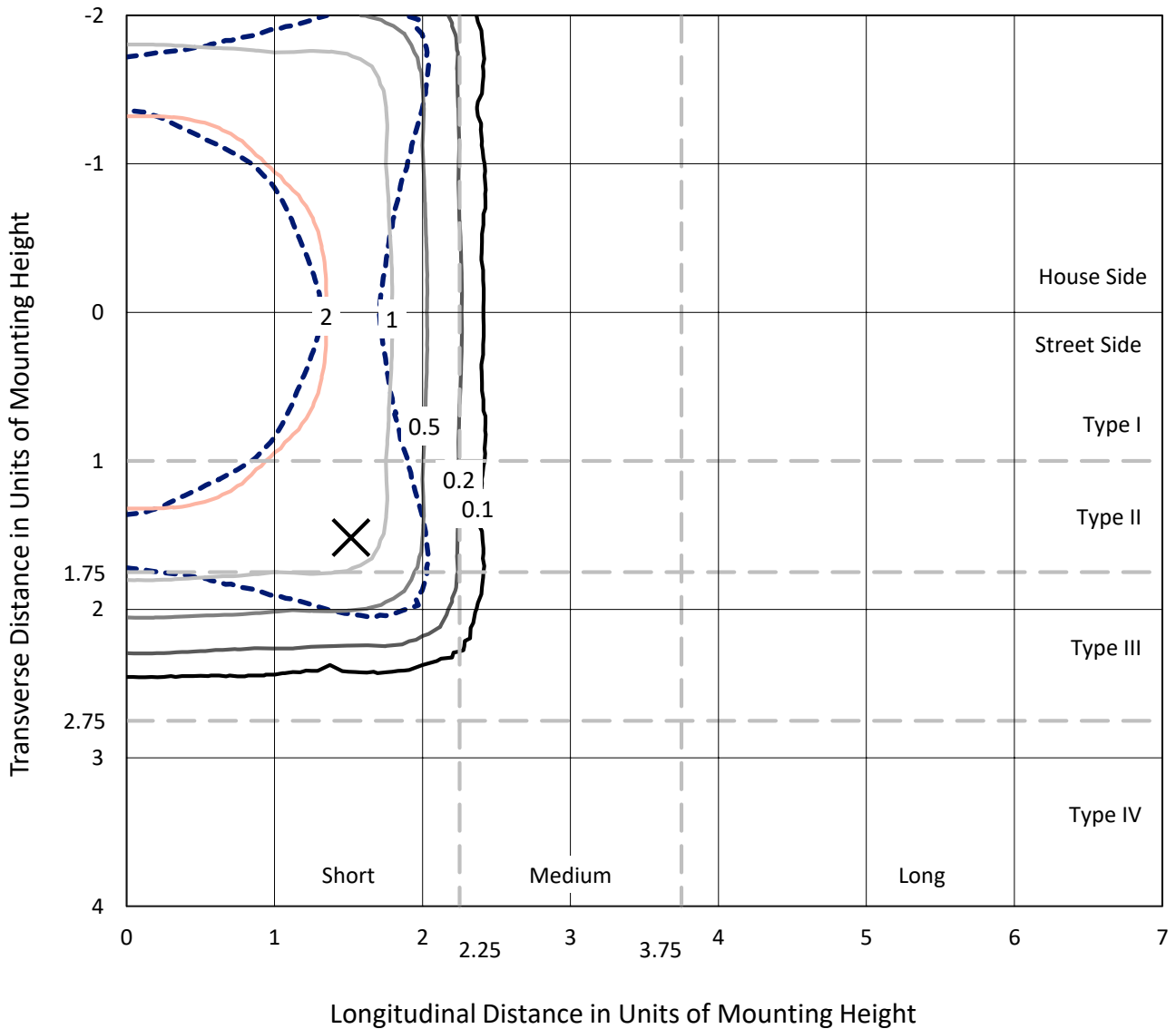


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

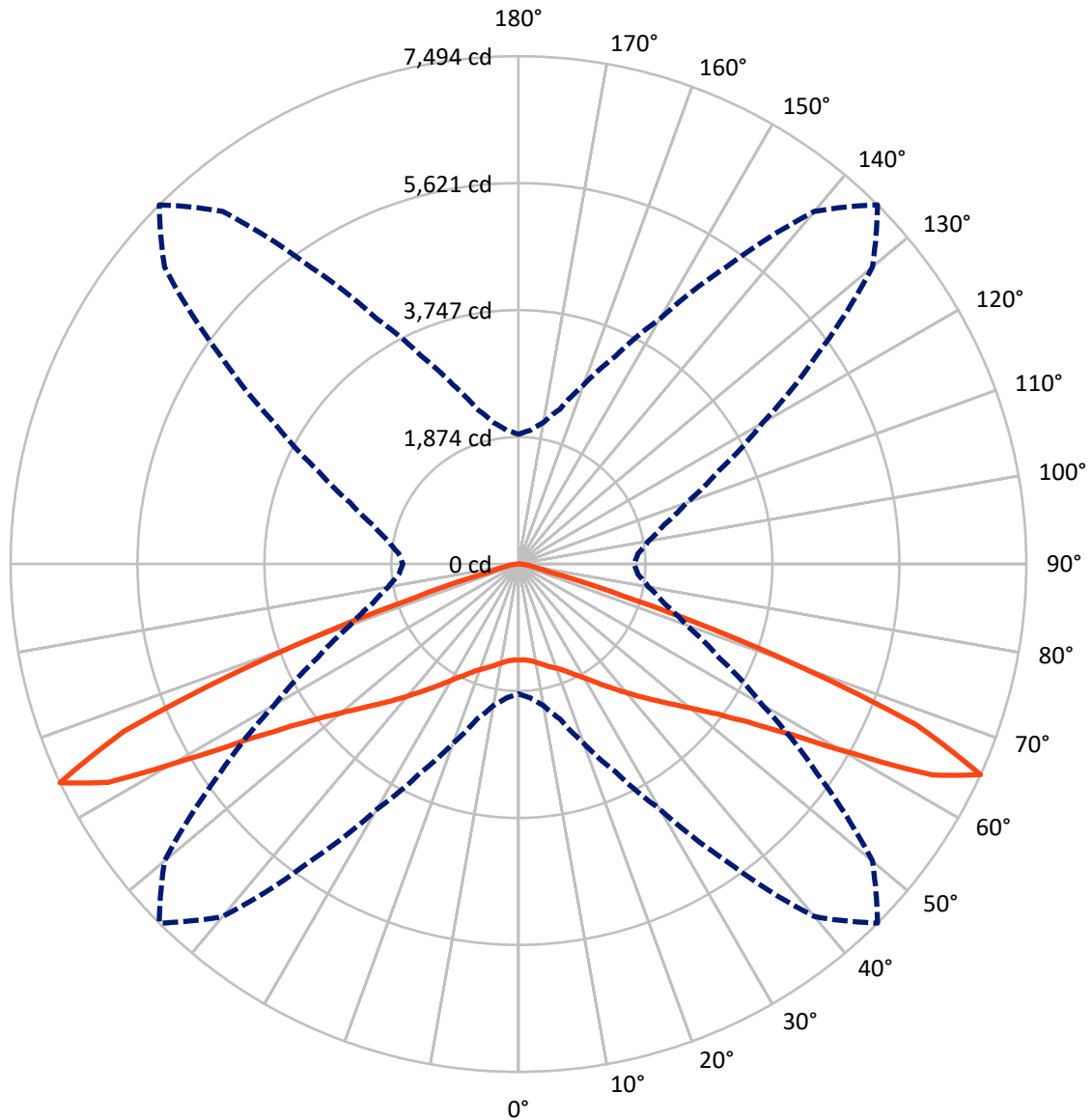


Based on 20 foot mounting height. Maximum calculated value = 3.5 fc  
 Type V - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	6259.5	0.0	6259.5
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	6259.5	0.0	6259.5
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	12519.0	0.0	12519.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	138.1	1.1
10°-20°	442.8	3.5
20°-30°	828.0	6.6
30°-40°	1400.3	11.2
40°-50°	2289.7	18.3
50°-60°	3640.9	29.1
60°-70°	3291.1	26.3
70°-80°	416.5	3.3
80°-90°	71.6	0.6
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°	12519.0	100.0
0°-180°	12519.0	100.0



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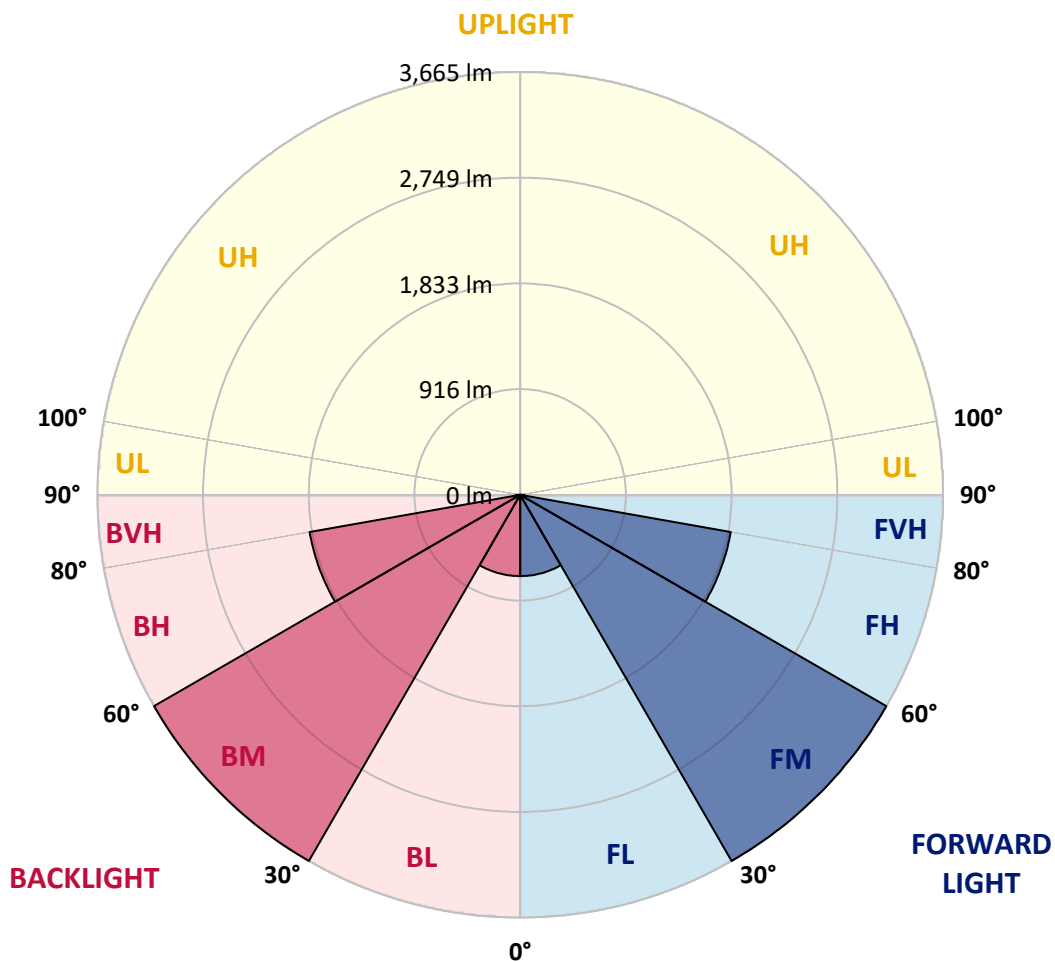
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	704.4	5.6			
FM	(30°-60°)	3665.4	29.3			
FH	(60°-80°)	1853.8	14.8			G2/5000
FVH	(80°-90°)	35.8	0.3			G1/100
BL	(0°-30°)	704.4	5.6	B2/1000		
BM	(30°-60°)	3665.4	29.3	B3/5000		
BH	(60°-80°)	1853.8	14.8	B3/2500		G2/5000
BVH	(80°-90°)	35.8	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G2**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1416.5	1416.5	1416.5	1416.5	1416.5	1416.5	1416.5	1416.5	1416.5	1416.5	1416.5
2.5°	1417.7	1418.9	1420.1	1418.9	1420.1	1418.3	1417.1	1418.9	1417.1	1415.4	1416.5
5°	1430.0	1430.6	1430.6	1428.8	1430.6	1429.4	1427.7	1430.0	1428.3	1426.5	1427.7
7.5°	1450.5	1452.9	1451.1	1449.4	1450.5	1449.4	1448.2	1448.8	1448.2	1446.4	1447.0
10°	1478.1	1479.9	1478.7	1478.1	1479.3	1478.7	1477.5	1476.9	1477.5	1475.8	1475.8
12.5°	1511.5	1510.9	1510.3	1510.9	1512.7	1512.7	1512.1	1512.7	1513.9	1514.4	1513.3
15°	1544.4	1545.5	1545.5	1545.5	1549.0	1552.0	1553.7	1554.9	1557.3	1557.8	1555.5
17.5°	1585.4	1585.4	1584.8	1585.4	1588.9	1593.6	1595.4	1597.7	1600.1	1601.8	1598.9
20°	1631.1	1632.3	1632.3	1633.5	1638.2	1643.4	1643.4	1644.6	1643.4	1644.6	1642.9
22.5°	1686.8	1690.3	1690.3	1690.9	1695.6	1702.1	1700.3	1702.1	1699.1	1701.5	1699.1
25°	1759.5	1764.8	1763.6	1763.6	1767.2	1771.3	1771.8	1775.4	1774.8	1777.7	1775.9
27.5°	1841.6	1849.8	1852.2	1851.6	1853.9	1858.0	1859.2	1863.3	1861.0	1863.3	1862.1
30°	1940.1	1943.6	1948.3	1950.1	1953.0	1957.1	1957.1	1957.7	1954.8	1958.3	1960.0
32.5°	2042.1	2048.6	2053.3	2063.8	2069.1	2072.0	2071.4	2072.6	2069.7	2074.4	2077.9
35°	2177.0	2181.7	2189.3	2197.5	2204.5	2204.0	2202.2	2202.8	2202.8	2206.9	2210.4
37.5°	2339.4	2340.6	2350.5	2362.3	2365.8	2362.3	2351.7	2349.4	2344.1	2349.4	2355.2
40°	2511.2	2515.3	2535.2	2542.8	2544.6	2538.2	2522.9	2514.1	2502.4	2508.8	2517.0
42.5°	2691.2	2699.4	2717.6	2731.1	2736.9	2732.8	2711.7	2698.2	2683.0	2686.5	2694.7
45°	2890.5	2900.5	2926.3	2939.2	2950.3	2943.9	2923.4	2902.8	2878.8	2880.6	2893.5
47.5°	3113.3	3123.3	3156.7	3178.4	3184.3	3183.1	3160.2	3132.1	3099.3	3098.1	3109.2
50°	3363.1	3373.1	3414.7	3448.1	3465.1	3463.4	3436.4	3396.5	3356.6	3357.2	3371.3
52.5°	3607.0	3619.3	3662.7	3720.2	3753.6	3777.6	3761.2	3723.7	3675.0	3676.2	3689.1
55°	3835.7	3856.2	3906.0	3984.0	4046.2	4113.6	4132.9	4131.8	4102.4	4110.6	4123.5
57.5°	3946.5	3977.0	4053.8	4176.9	4303.5	4440.7	4556.8	4643.6	4680.5	4736.2	4723.3
60°	3736.6	3785.2	3898.4	4079.6	4329.9	4616.1	4922.7	5222.3	5477.9	5670.8	5560.0
62.5°	3059.4	3122.7	3259.9	3492.1	3870.8	4328.8	4915.7	5623.9	6395.5	6861.0	6528.6
65°	1914.3	1980.0	2119.5	2368.1	2811.4	3380.7	4176.9	5350.7	6792.4	7494.3	6817.7
67.5°	746.4	782.1	857.8	1016.7	1349.7	1856.3	2655.4	3987.5	5711.9	6326.9	5605.7
70°	374.1	377.6	391.7	421.0	492.5	639.7	973.3	1848.6	3275.7	3956.4	3157.9
72.5°	270.3	270.9	277.9	290.8	313.7	346.5	409.8	565.8	1065.3	1628.2	998.5
75°	207.0	209.3	213.4	220.5	232.8	249.2	272.0	326.0	404.0	468.5	394.0
77.5°	159.5	164.2	167.1	173.5	181.2	192.3	198.8	219.3	255.0	268.5	264.4
80°	121.4	125.5	131.9	137.2	142.5	147.8	145.4	154.8	173.5	184.7	178.8
82.5°	77.4	82.1	100.8	105.5	107.9	111.4	107.3	107.9	116.1	123.1	116.1
85°	49.8	52.8	63.9	69.8	70.4	72.7	70.9	66.8	66.8	61.0	68.6
87.5°	22.9	23.5	28.7	34.0	35.2	31.7	31.1	29.9	24.0	22.9	24.6
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°	1416.5	1416.5	1416.5	1416.5	1416.5	1416.5	1416.5	1416.5
2.5°	1415.9	1417.1	1417.7	1419.5	1420.1	1420.1	1420.6	1421.8
5°	1427.1	1428.8	1429.4	1431.8	1432.4	1431.8	1433.0	1433.5
7.5°	1447.0	1450.0	1451.1	1453.5	1451.7	1454.1	1454.6	1454.6
10°	1476.3	1479.3	1479.9	1482.2	1481.0	1482.2	1482.2	1481.0
12.5°	1515.0	1515.6	1513.9	1515.6	1513.3	1514.4	1512.7	1511.5
15°	1557.8	1556.1	1552.0	1552.0	1548.5	1549.0	1548.5	1547.9
17.5°	1599.5	1595.9	1593.0	1591.8	1588.9	1588.3	1586.6	1586.6
20°	1645.2	1643.4	1641.7	1639.3	1636.4	1633.5	1632.9	1634.1
22.5°	1700.3	1699.7	1699.7	1698.6	1694.4	1691.5	1689.8	1689.8
25°	1774.2	1768.9	1768.9	1768.3	1766.6	1764.8	1761.3	1763.0
27.5°	1857.4	1854.5	1856.9	1856.3	1854.5	1854.5	1852.2	1852.2
30°	1960.0	1958.9	1962.4	1959.5	1953.6	1953.0	1950.7	1947.7
32.5°	2078.5	2077.3	2082.6	2079.1	2069.7	2064.4	2059.7	2057.4
35°	2210.4	2211.0	2217.4	2215.1	2204.5	2201.0	2192.8	2191.6
37.5°	2354.6	2364.0	2375.2	2377.5	2368.7	2366.4	2357.6	2352.9
40°	2524.1	2536.4	2553.4	2557.5	2548.1	2546.4	2534.0	2527.6
42.5°	2704.7	2725.8	2746.9	2750.4	2741.0	2731.6	2719.9	2715.2
45°	2906.4	2931.6	2959.1	2966.2	2952.1	2941.0	2925.7	2925.7
47.5°	3132.7	3164.3	3195.4	3214.8	3201.9	3190.1	3172.0	3160.2
50°	3400.0	3443.4	3483.9	3503.8	3483.3	3461.0	3429.4	3418.8
52.5°	3735.4	3782.3	3817.5	3806.9	3775.3	3744.2	3709.6	3695.5
55°	4163.4	4179.2	4179.2	4139.4	4076.1	4023.9	3969.3	3951.2
57.5°	4698.7	4637.7	4543.9	4424.9	4275.4	4145.2	4057.3	4015.7
60°	5327.8	5034.7	4703.4	4378.0	4110.6	3890.2	3759.4	3699.6
62.5°	5747.1	4980.2	4316.4	3794.0	3409.4	3143.8	2963.2	2892.9
65°	5371.2	4153.4	3264.6	2639.6	2220.4	1950.1	1771.3	1705.6
67.5°	3934.2	2602.6	1738.4	1245.9	912.9	728.2	654.9	624.4
70°	1766.0	916.4	561.7	438.6	378.2	347.1	333.6	328.9
72.5°	532.4	385.2	324.8	293.2	269.1	253.9	242.7	241.6
75°	321.3	267.4	237.5	218.7	203.5	191.1	185.3	183.5
77.5°	224.6	196.4	182.3	168.9	157.1	147.8	142.5	138.4
80°	157.7	144.2	137.8	130.2	122.5	113.7	106.1	102.6
82.5°	105.5	102.6	102.6	97.9	91.5	83.3	68.0	64.5
85°	68.0	67.4	68.6	66.8	62.1	53.4	44.0	41.6
87.5°	31.7	32.2	35.8	35.2	34.0	28.1	22.3	21.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)