

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: P299404

Luminaire Tested: **GLNA-AF-02-LED-E1-5NQ-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299404  
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-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(2) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II  
w/Spill Control OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10113.9 lumens  
Efficiency: N/A  
Efficacy: 119.0 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 - G1

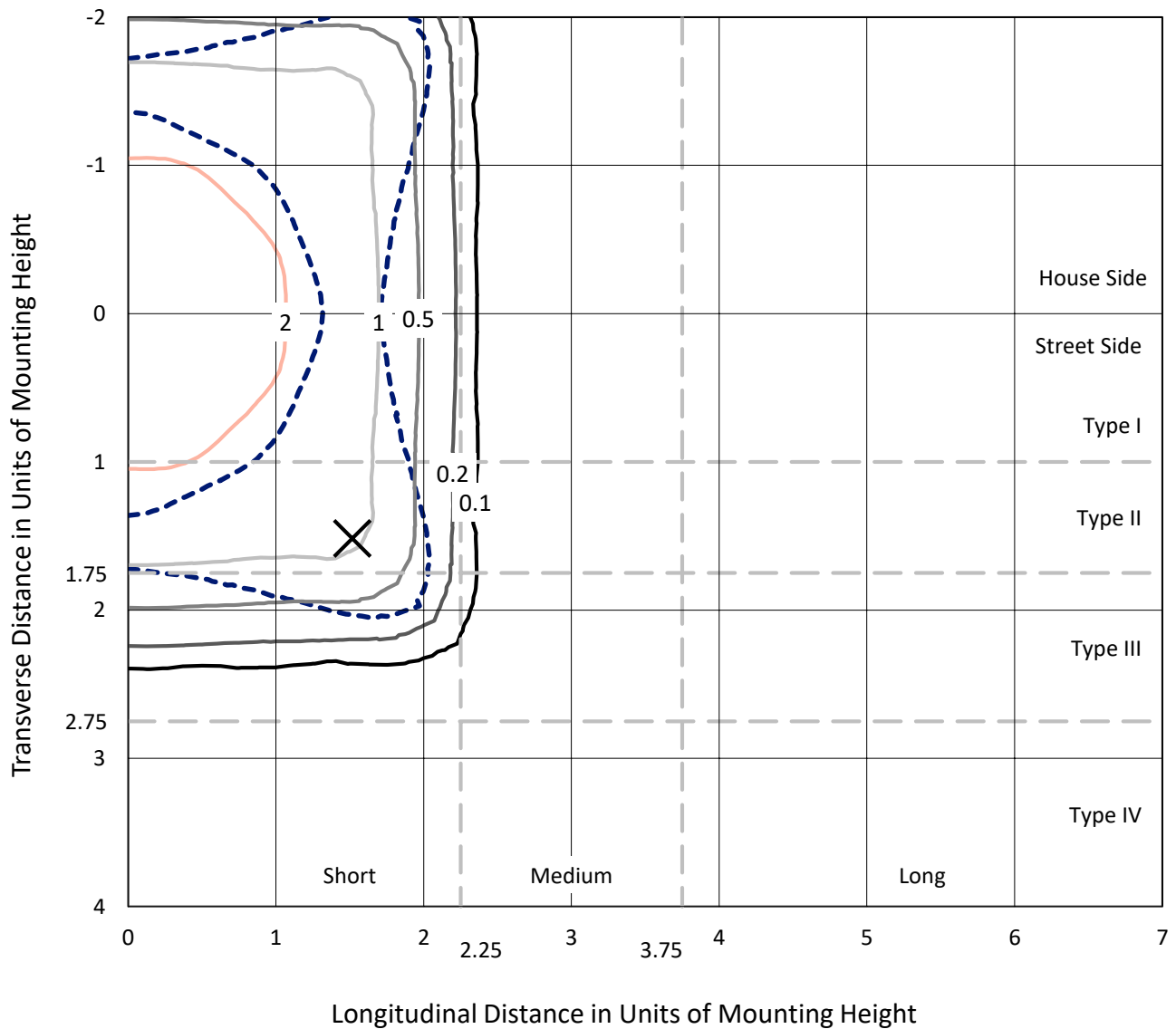
Input Watts (W): 85  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

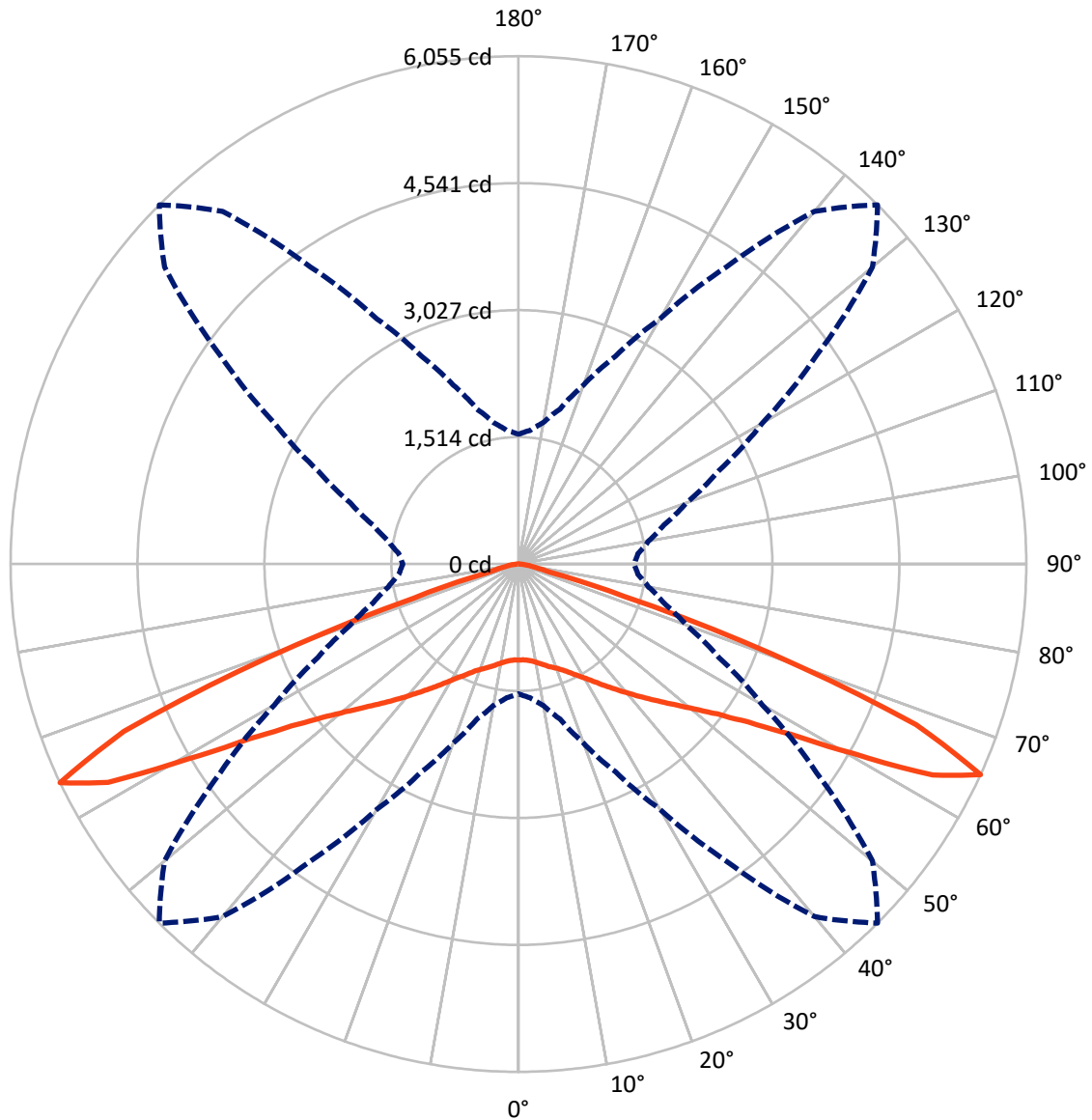
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 2.9 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	5056.9	0.0	5056.9
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	5056.9	0.0	5056.9
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	10113.9	0.0	10113.9
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	111.5	1.1
10°-20°	357.7	3.5
20°-30°	668.9	6.6
30°-40°	1131.3	11.2
40°-50°	1849.8	18.3
50°-60°	2941.4	29.1
60°-70°	2658.9	26.3
70°-80°	336.5	3.3
80°-90°	57.9	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°	10113.9	100.0
0°-180°	10113.9	100.0



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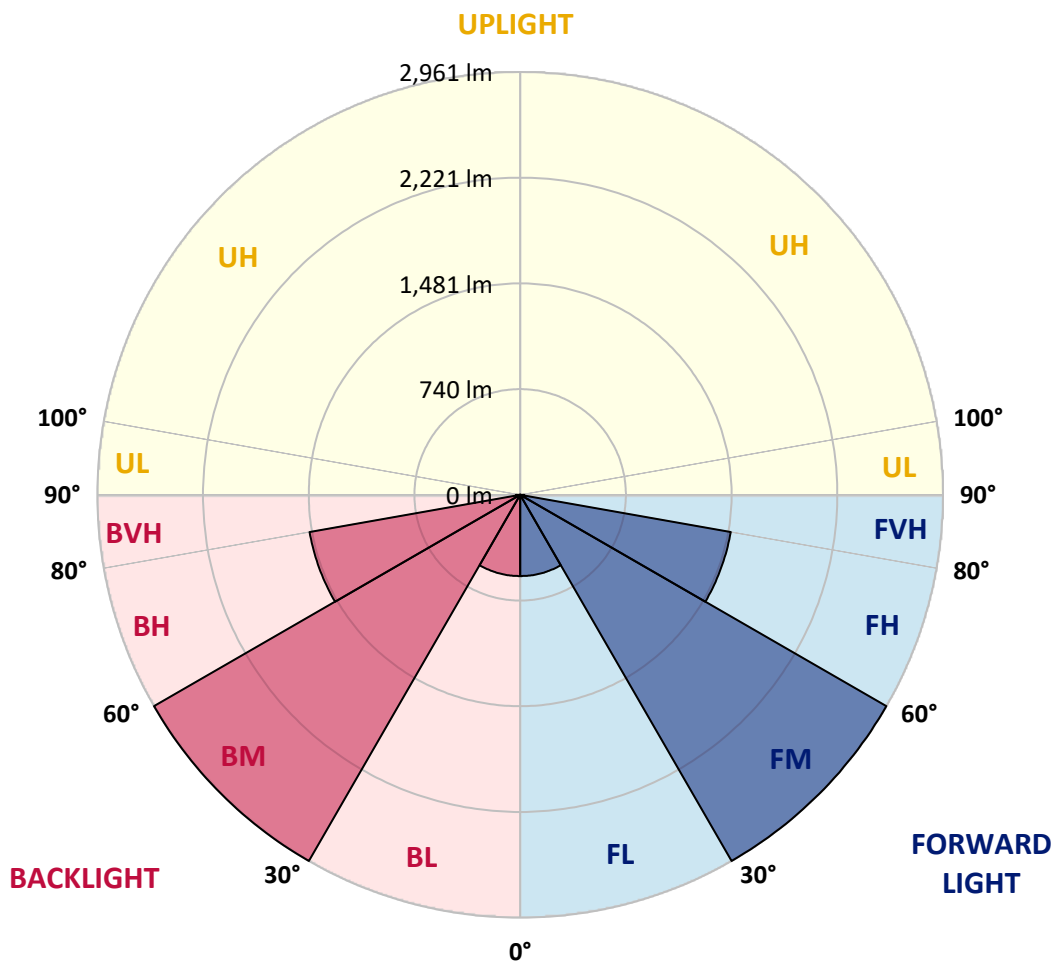
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	569.1	5.6			
FM	(30°-60°)	2961.2	29.3			
FH	(60°-80°)	1497.7	14.8			G1/1800
FVH	(80°-90°)	28.9	0.3			G1/100
BL	(0°-30°)	569.1	5.6	B2/1000		
BM	(30°-60°)	2961.2	29.3	B3/5000		
BH	(60°-80°)	1497.7	14.8	B3/2500		G1/1800
BVH	(80°-90°)	28.9	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-G1**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1144.4	1144.4	1144.4	1144.4	1144.4	1144.4	1144.4	1144.4	1144.4	1144.4	1144.4
2.5°	1145.3	1146.3	1147.2	1146.3	1147.2	1145.8	1144.9	1146.3	1144.9	1143.4	1144.4
5°	1155.3	1155.8	1155.8	1154.3	1155.8	1154.8	1153.4	1155.3	1153.9	1152.4	1153.4
7.5°	1171.9	1173.8	1172.3	1170.9	1171.9	1170.9	1170.0	1170.4	1170.0	1168.5	1169.0
10°	1194.1	1195.5	1194.6	1194.1	1195.1	1194.6	1193.7	1193.2	1193.7	1192.2	1192.2
12.5°	1221.1	1220.7	1220.2	1220.7	1222.1	1222.1	1221.6	1222.1	1223.0	1223.5	1222.5
15°	1247.7	1248.6	1248.6	1248.6	1251.4	1253.8	1255.2	1256.2	1258.1	1258.5	1256.7
17.5°	1280.8	1280.8	1280.3	1280.8	1283.7	1287.4	1288.9	1290.8	1292.7	1294.1	1291.7
20°	1317.8	1318.7	1318.7	1319.7	1323.4	1327.7	1327.7	1328.7	1327.7	1328.7	1327.2
22.5°	1362.8	1365.6	1365.6	1366.1	1369.9	1375.1	1373.6	1375.1	1372.7	1374.6	1372.7
25°	1421.5	1425.8	1424.8	1424.8	1427.6	1431.0	1431.4	1434.3	1433.8	1436.2	1434.8
27.5°	1487.8	1494.4	1496.3	1495.9	1497.8	1501.1	1502.0	1505.3	1503.4	1505.3	1504.4
30°	1567.4	1570.2	1574.0	1575.4	1577.8	1581.1	1581.1	1581.6	1579.2	1582.1	1583.5
32.5°	1649.8	1655.0	1658.8	1667.3	1671.6	1674.0	1673.5	1674.4	1672.1	1675.9	1678.7
35°	1758.7	1762.5	1768.7	1775.3	1781.0	1780.5	1779.1	1779.6	1779.6	1782.9	1785.7
37.5°	1890.0	1890.9	1899.0	1908.4	1911.3	1908.4	1899.9	1898.0	1893.7	1898.0	1902.7
40°	2028.7	2032.1	2048.2	2054.3	2055.7	2050.5	2038.2	2031.1	2021.6	2026.8	2033.5
42.5°	2174.2	2180.8	2195.5	2206.4	2211.1	2207.8	2190.7	2179.8	2167.5	2170.4	2177.0
45°	2335.2	2343.3	2364.1	2374.5	2383.5	2378.3	2361.7	2345.2	2325.7	2327.2	2337.6
47.5°	2515.2	2523.3	2550.3	2567.8	2572.5	2571.6	2553.1	2530.4	2503.8	2502.9	2511.9
50°	2717.0	2725.0	2758.7	2785.7	2799.4	2798.0	2776.2	2744.0	2711.8	2712.2	2723.6
52.5°	2914.0	2924.0	2959.0	3005.4	3032.4	3051.9	3038.6	3008.3	2969.0	2969.9	2980.3
55°	3098.8	3115.3	3155.6	3218.6	3268.8	3323.3	3338.9	3338.0	3314.3	3320.9	3331.3
57.5°	3188.3	3212.9	3275.0	3374.4	3476.8	3587.6	3681.4	3751.5	3781.3	3826.3	3815.9
60°	3018.7	3058.0	3149.4	3295.8	3498.1	3729.2	3977.0	4219.0	4425.5	4581.4	4491.8
62.5°	2471.6	2522.8	2633.6	2821.2	3127.2	3497.1	3971.3	4543.5	5166.8	5542.9	5274.3
65°	1546.5	1599.6	1712.3	1913.2	2271.3	2731.2	3374.4	4322.7	5487.5	6054.5	5507.9
67.5°	603.0	631.9	693.0	821.3	1090.4	1499.6	2145.3	3221.4	4614.5	5111.4	4528.8
70°	302.2	305.0	316.4	340.1	397.9	516.8	786.3	1493.5	2646.4	3196.3	2551.2
72.5°	218.4	218.8	224.5	234.9	253.4	279.9	331.1	457.1	860.7	1315.4	806.7
75°	167.2	169.1	172.4	178.1	188.0	201.3	219.8	263.4	326.4	378.5	318.3
77.5°	128.8	132.6	135.0	140.2	146.4	155.4	160.6	177.2	206.0	216.9	213.6
80°	98.1	101.4	106.6	110.8	115.1	119.4	117.5	125.0	140.2	149.2	144.5
82.5°	62.5	66.3	81.5	85.3	87.2	90.0	86.7	87.2	93.8	99.5	93.8
85°	40.3	42.6	51.6	56.4	56.8	58.7	57.3	54.0	54.0	49.3	55.4
87.5°	18.5	18.9	23.2	27.5	28.4	25.6	25.1	24.2	19.4	18.5	19.9
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°	1144.4	1144.4	1144.4	1144.4	1144.4	1144.4	1144.4	1144.4
2.5°	1143.9	1144.9	1145.3	1146.8	1147.2	1147.2	1147.7	1148.7
5°	1152.9	1154.3	1154.8	1156.7	1157.2	1156.7	1157.7	1158.1
7.5°	1169.0	1171.4	1172.3	1174.2	1172.8	1174.7	1175.2	1175.2
10°	1192.7	1195.1	1195.5	1197.4	1196.5	1197.4	1197.4	1196.5
12.5°	1224.0	1224.4	1223.0	1224.4	1222.5	1223.5	1222.1	1221.1
15°	1258.5	1257.1	1253.8	1253.8	1251.0	1251.4	1251.0	1250.5
17.5°	1292.2	1289.3	1287.0	1286.0	1283.7	1283.2	1281.8	1281.8
20°	1329.1	1327.7	1326.3	1324.4	1322.0	1319.7	1319.2	1320.1
22.5°	1373.6	1373.2	1373.2	1372.2	1368.9	1366.5	1365.1	1365.1
25°	1433.3	1429.1	1429.1	1428.6	1427.2	1425.8	1422.9	1424.3
27.5°	1500.6	1498.2	1500.1	1499.6	1498.2	1498.2	1496.3	1496.3
30°	1583.5	1582.5	1585.4	1583.0	1578.3	1577.8	1575.9	1573.5
32.5°	1679.2	1678.2	1682.5	1679.6	1672.1	1667.8	1664.0	1662.1
35°	1785.7	1786.2	1791.4	1789.5	1781.0	1778.2	1771.5	1770.6
37.5°	1902.3	1909.8	1918.8	1920.7	1913.6	1911.7	1904.6	1900.8
40°	2039.2	2049.1	2062.8	2066.2	2058.6	2057.2	2047.2	2042.0
42.5°	2185.0	2202.1	2219.2	2222.0	2214.4	2206.8	2197.4	2193.6
45°	2348.0	2368.4	2390.6	2396.3	2384.9	2375.9	2363.6	2363.6
47.5°	2530.8	2556.4	2581.5	2597.1	2586.7	2577.2	2562.6	2553.1
50°	2746.8	2781.9	2814.6	2830.7	2814.1	2796.1	2770.5	2762.0
52.5°	3017.8	3055.7	3084.1	3075.6	3050.0	3024.9	2996.9	2985.6
55°	3363.5	3376.3	3376.3	3344.1	3293.0	3250.8	3206.8	3192.1
57.5°	3796.0	3746.7	3671.0	3574.8	3454.0	3348.9	3277.8	3244.2
60°	4304.3	4067.4	3799.8	3536.9	3320.9	3142.8	3037.2	2988.9
62.5°	4642.9	4023.4	3487.2	3065.1	2754.4	2539.8	2393.9	2337.1
65°	4339.3	3355.5	2637.4	2132.5	1793.8	1575.4	1431.0	1377.9
67.5°	3178.3	2102.6	1404.4	1006.6	737.5	588.3	529.1	504.5
70°	1426.7	740.3	453.8	354.3	305.5	280.4	269.5	265.7
72.5°	430.1	311.2	262.4	236.8	217.4	205.1	196.1	195.2
75°	259.6	216.0	191.8	176.7	164.4	154.4	149.7	148.3
77.5°	181.4	158.7	147.3	136.4	126.9	119.4	115.1	111.8
80°	127.4	116.5	111.3	105.2	99.0	91.9	85.7	82.9
82.5°	85.3	82.9	82.9	79.1	73.9	67.3	54.9	52.1
85°	54.9	54.5	55.4	54.0	50.2	43.1	35.5	33.6
87.5°	25.6	26.1	28.9	28.4	27.5	22.7	18.0	17.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)