

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: P301923

Luminaire Tested: **GLNA-AF-01-LED-E1-SL4-600-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301923
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24301)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-01-LED-E1-SL4-600-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(1) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
w/Spill Control WITH HOUSESIDE SHEILD OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3027.6 lumens
Efficiency: N/A
Efficacy: 89.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B0 - U0 - G1

Input Watts (W): 34
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

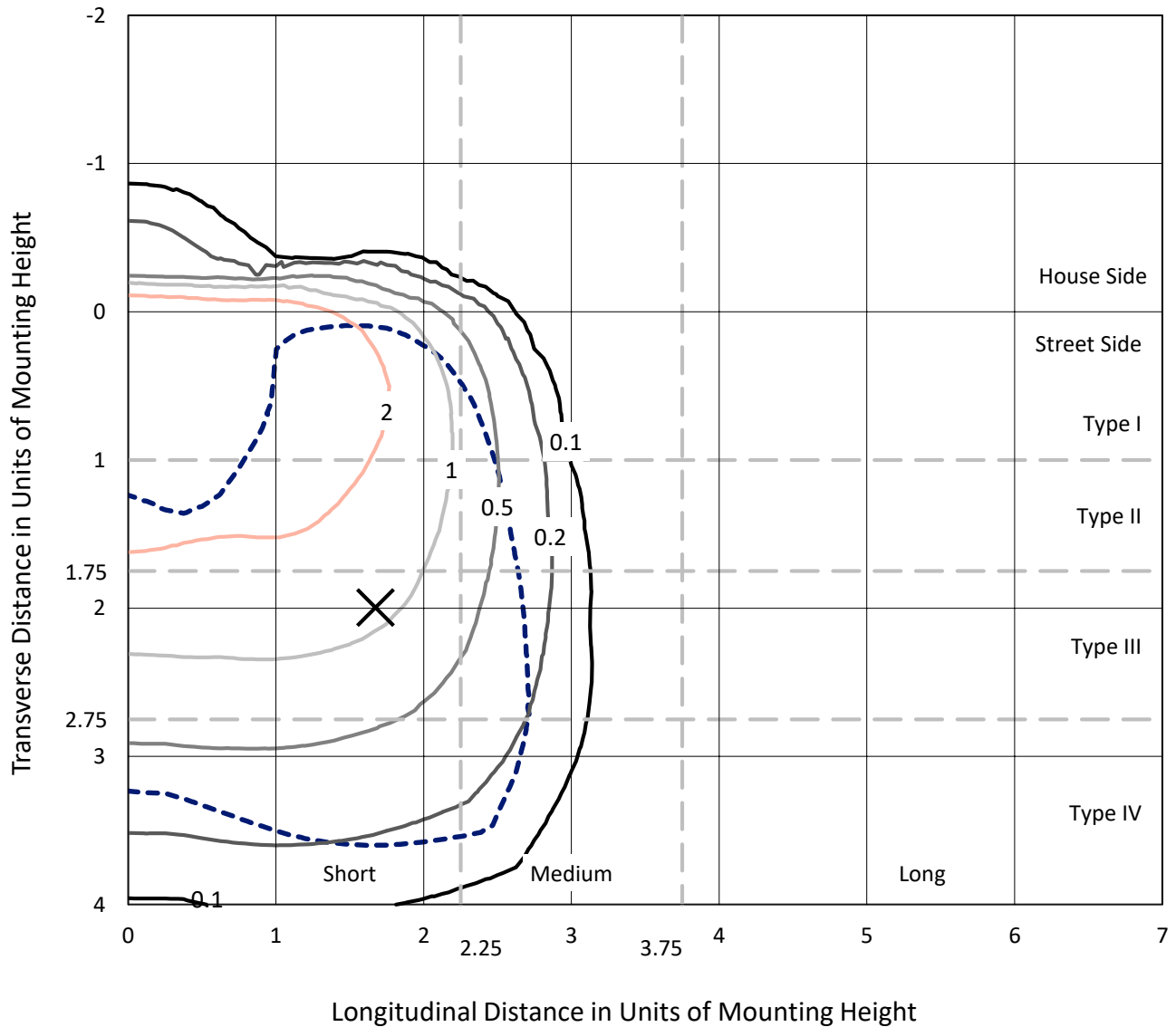


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

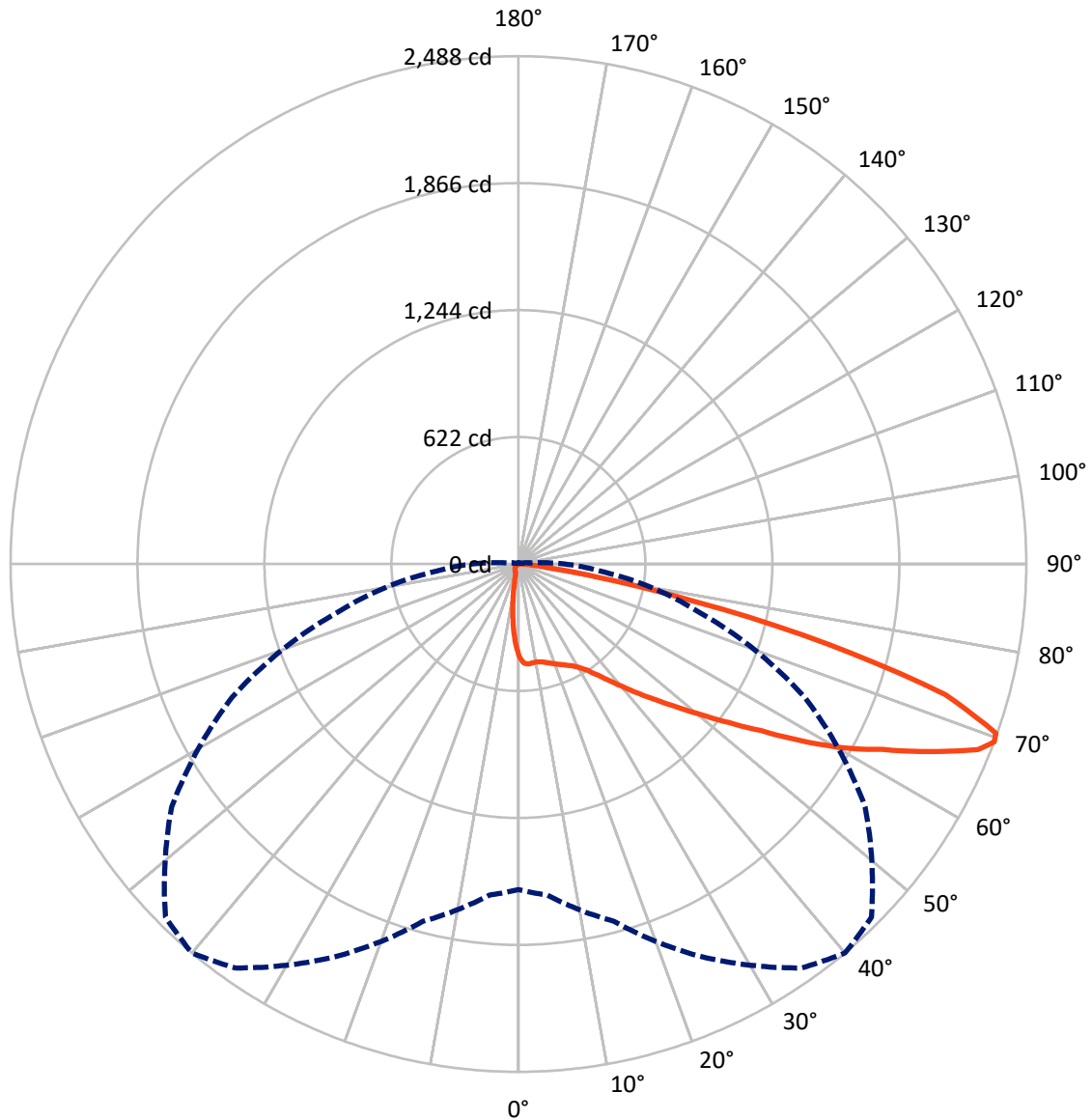


Based on 10 foot mounting height. Maximum calculated value = 5 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	177.1	0.0	177.1
	% Fixture	5.9	0.0	5.9
Street Side	Lumens	2850.5	0.0	2850.5
	% Fixture	94.1	0.0	94.1
Total	Lumens	3027.6	0.0	3027.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.7	1.2
10°-20°	90.2	3.0
20°-30°	151.9	5.0
30°-40°	248.7	8.2
40°-50°	430.6	14.2
50°-60°	678.2	22.4
60°-70°	885.7	29.3
70°-80°	456.2	15.1
80°-90°	49.3	1.6
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°	3027.6	100.0
0°-180°	3027.6	100.0

Coefficient of Utilization



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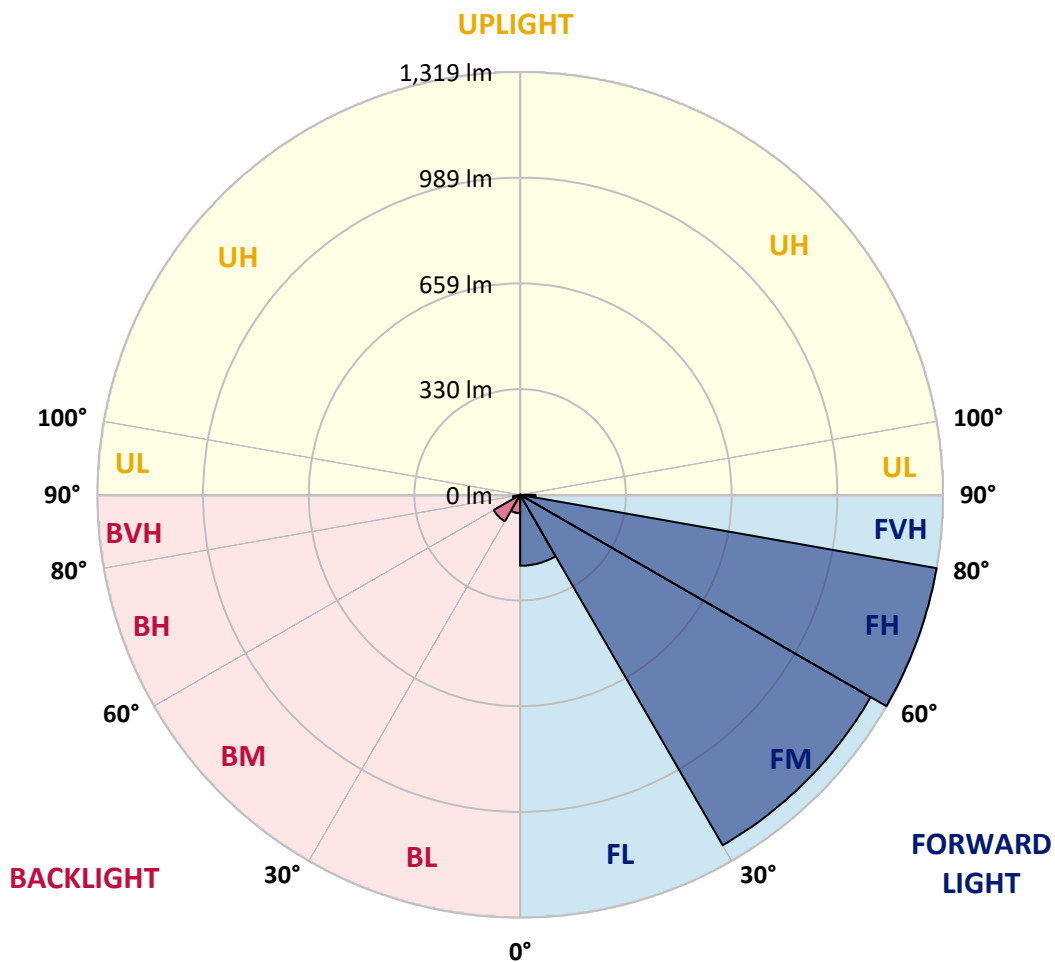
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	221.4	7.3			
FM	(30°-60°)	1262.3	41.7			
FH	(60°-80°)	1318.9	43.6			G1/1800
FVH	(80°-90°)	47.8	1.6			G1/100
BL	(0°-30°)	57.4	1.9	B0/110		
BM	(30°-60°)	95.2	3.1	B0/220		
BH	(60°-80°)	23.0	0.8	B0/110		G0/110
BVH	(80°-90°)	1.5	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	452.3	452.3	452.3	452.3	452.3	452.3	452.3	452.3	452.3	452.3	452.3
2.5°	496.7	494.0	492.3	490.2	487.5	485.1	484.2	477.6	471.3	462.6	452.7
5°	505.9	505.0	502.1	499.2	496.0	492.3	490.4	482.4	473.4	460.8	443.5
7.5°	506.8	505.7	502.1	498.1	493.6	489.3	485.9	477.9	469.6	456.8	435.8
10°	505.3	504.1	501.4	497.0	491.4	487.3	483.9	476.3	469.3	457.7	434.3
12.5°	503.7	502.4	501.2	499.0	494.1	491.3	488.4	481.2	474.9	465.1	439.5
15°	505.3	504.6	506.0	505.1	502.4	499.9	497.0	490.5	484.8	476.7	449.1
17.5°	512.2	512.2	516.7	517.2	514.7	511.1	506.9	500.5	495.6	488.7	460.4
20°	528.2	527.7	533.4	534.5	528.4	522.8	516.7	508.7	505.0	500.6	471.6
22.5°	555.8	553.3	556.7	555.6	543.5	534.9	527.3	517.6	515.6	513.6	484.1
25°	591.6	590.2	592.5	581.9	560.6	548.9	539.9	528.9	528.9	530.9	498.1
27.5°	643.7	638.3	630.4	611.6	579.8	564.8	555.1	543.3	546.4	553.8	516.7
30°	697.1	691.1	672.9	644.1	603.0	587.3	576.0	563.7	570.9	584.4	541.5
32.5°	749.7	743.0	717.3	680.9	636.3	620.7	609.7	596.1	608.2	630.9	577.9
35°	800.7	794.7	765.0	722.1	680.7	667.7	657.6	645.9	661.4	693.1	629.3
37.5°	858.0	851.5	815.3	768.8	734.6	725.2	717.8	706.1	733.1	779.6	700.9
40°	928.5	917.5	868.6	822.3	796.9	792.4	787.4	785.7	827.7	892.1	796.2
42.5°	1009.2	991.2	924.5	878.7	865.4	868.6	867.4	874.6	946.1	1031.9	912.2
45°	1089.9	1066.7	986.7	938.9	940.7	952.1	959.1	987.9	1094.4	1192.3	1037.1
47.5°	1158.4	1135.5	1046.3	1004.0	1025.6	1047.9	1067.1	1121.7	1246.9	1350.2	1134.3
50°	1217.0	1195.4	1109.6	1075.5	1124.2	1160.2	1191.2	1272.1	1410.9	1470.4	1202.4
52.5°	1264.9	1250.5	1175.2	1157.5	1236.8	1289.6	1335.0	1432.0	1556.2	1568.0	1255.4
55°	1311.6	1301.3	1245.6	1255.0	1369.1	1441.0	1498.5	1601.6	1681.2	1649.5	1306.2
57.5°	1365.3	1355.9	1326.0	1378.6	1543.0	1633.5	1696.2	1751.9	1791.3	1732.8	1354.1
60°	1420.1	1414.7	1415.4	1516.0	1742.7	1829.5	1864.1	1878.6	1899.5	1811.2	1356.8
62.5°	1472.4	1482.6	1517.6	1668.8	1933.9	2000.6	2018.0	2032.3	2007.8	1823.6	1253.6
65°	1560.8	1577.6	1661.0	1873.3	2144.2	2215.6	2233.6	2184.7	2024.9	1662.8	1019.7
67.5°	1604.1	1634.7	1783.6	2064.0	2348.2	2427.5	2420.8	2194.7	1817.1	1268.0	654.4
69°	1595.1	1627.7	1811.9	2122.4	2416.0	2487.9	2445.5	2073.4	1548.0	918.6	401.7
70°	1559.4	1592.4	1797.3	2120.2	2424.6	2481.6	2399.7	1923.6	1308.9	671.7	251.2
72.5°	1302.2	1330.7	1595.6	1916.4	2233.6	2187.3	2007.6	1332.7	637.8	182.9	56.6
75°	801.6	817.5	1144.9	1443.7	1687.0	1568.0	1337.6	663.0	190.1	51.7	31.4
77.5°	423.5	430.7	626.8	851.0	1069.4	884.9	685.5	258.6	87.6	32.4	22.7
80°	250.3	255.7	337.5	389.1	462.8	386.6	274.1	158.8	62.7	20.4	20.2
82.5°	143.3	146.7	244.7	216.3	182.4	155.7	136.4	150.5	37.7	13.7	20.9
85°	52.6	53.3	137.7	164.5	108.5	64.5	67.8	124.7	10.1	8.7	16.4
87.5°	24.5	24.0	70.8	100.7	63.4	40.9	52.8	27.4	4.0	5.6	4.5
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	452.3	452.3	452.3	452.3	452.3	452.3	452.3	452.3	452.3	452.3	452.3
2.5°	446.9	440.3	428.2	415.8	403.1	393.4	383.9	376.3	373.8	369.1	369.4
5°	433.2	421.0	395.8	370.2	343.5	321.5	300.8	284.0	275.9	267.6	267.6
7.5°	421.3	403.5	364.0	322.4	279.3	243.1	210.5	186.0	172.5	161.7	161.5
10°	416.8	392.7	337.5	277.9	217.9	168.5	129.8	104.9	92.1	83.8	83.4
12.5°	418.8	388.9	317.2	236.8	161.5	108.3	75.1	59.1	53.7	51.2	51.2
15°	424.6	387.8	296.8	196.6	114.1	67.8	49.9	45.6	45.2	45.2	45.2
17.5°	431.6	388.2	275.9	157.5	77.7	48.5	43.1	42.5	42.9	42.9	42.9
20°	438.8	388.4	253.4	121.3	54.8	42.2	40.5	40.4	40.7	40.7	40.9
22.5°	447.7	389.3	230.9	90.6	45.2	39.8	38.6	38.6	38.7	38.7	38.6
25°	457.7	391.1	207.4	67.2	41.3	38.2	37.1	36.9	37.1	36.9	36.8
27.5°	470.4	393.6	181.3	52.6	39.5	36.6	35.7	35.7	35.5	35.3	35.1
30°	486.2	396.5	151.9	44.7	37.7	35.1	34.2	34.1	33.9	33.5	33.5
32.5°	510.4	402.8	122.9	40.5	35.7	33.2	32.4	32.4	32.1	31.7	31.5
35°	547.5	415.2	97.0	38.0	33.5	31.0	30.1	30.1	29.7	29.6	29.4
37.5°	598.9	434.1	75.3	35.7	31.4	28.7	27.8	27.6	27.2	26.9	26.7
40°	667.2	457.6	59.3	33.5	29.2	26.3	25.6	25.2	24.5	24.0	24.0
42.5°	752.9	484.2	48.1	31.2	26.7	24.1	23.6	23.1	21.8	21.3	21.1
45°	842.7	508.2	40.7	28.5	24.1	22.0	21.6	20.7	19.1	18.6	18.6
47.5°	907.4	513.8	35.9	26.0	21.8	19.6	19.5	17.8	16.4	16.0	15.9
50°	947.7	502.8	31.9	23.4	19.6	17.5	16.9	15.0	14.1	13.7	13.5
52.5°	975.0	483.2	28.7	21.3	17.7	15.5	14.2	12.8	12.1	11.7	11.7
55°	996.8	455.4	25.4	19.3	16.0	13.9	12.1	11.0	10.3	9.9	9.9
57.5°	1002.9	417.7	22.2	17.7	14.4	12.3	10.3	9.6	8.7	8.5	8.5
60°	958.4	349.8	19.6	15.7	13.0	10.6	9.0	8.1	7.2	7.0	6.8
62.5°	841.1	270.7	17.3	13.9	11.4	9.2	7.7	6.7	5.9	5.9	5.9
65°	641.6	181.5	15.1	12.1	9.9	7.7	6.7	5.4	5.0	5.0	5.2
67.5°	384.0	98.8	13.0	10.3	8.5	6.5	5.6	4.7	4.5	4.7	4.7
69°	225.1	58.0	11.7	9.2	7.4	5.8	4.9	4.1	4.5	4.7	4.7
70°	138.9	39.1	10.8	8.3	6.7	5.2	4.5	4.0	4.3	4.5	4.5
72.5°	38.7	20.2	8.7	6.5	5.4	4.3	3.6	3.6	4.1	4.3	4.3
75°	25.2	15.0	6.7	4.9	4.1	3.4	3.1	3.4	4.0	4.1	4.1
77.5°	20.9	12.3	5.4	4.0	3.4	3.2	2.9	3.1	3.6	3.8	3.8
80°	19.1	8.7	4.3	3.6	3.1	2.9	2.7	2.5	3.2	3.4	3.4
82.5°	18.2	6.8	3.8	3.2	2.9	2.5	2.3	2.5	2.9	3.1	3.2
85°	11.4	4.5	3.4	3.1	2.5	2.3	2.3	2.3	2.7	2.9	2.9
87.5°	4.1	3.6	3.1	2.5	2.2	2.2	2.2	2.2	2.3	2.7	2.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)