

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: P301929

Luminaire Tested: **GLNA-AF-02-LED-E1-SL4-600-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301929
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-02-LED-E1-SL4-600-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(2) 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: 5916.1 lumens
Efficiency: N/A
Efficacy: 89.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 66
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

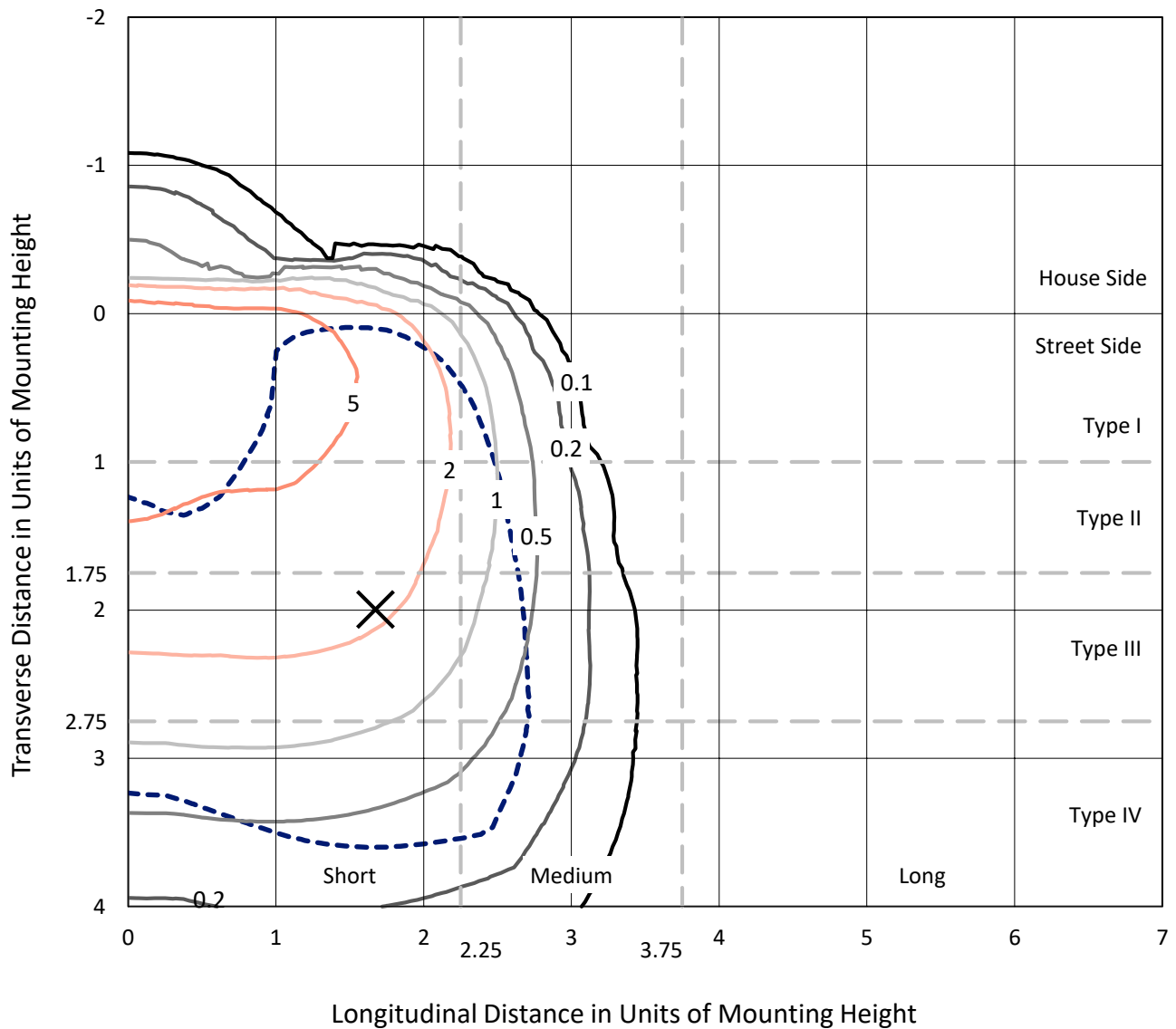


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

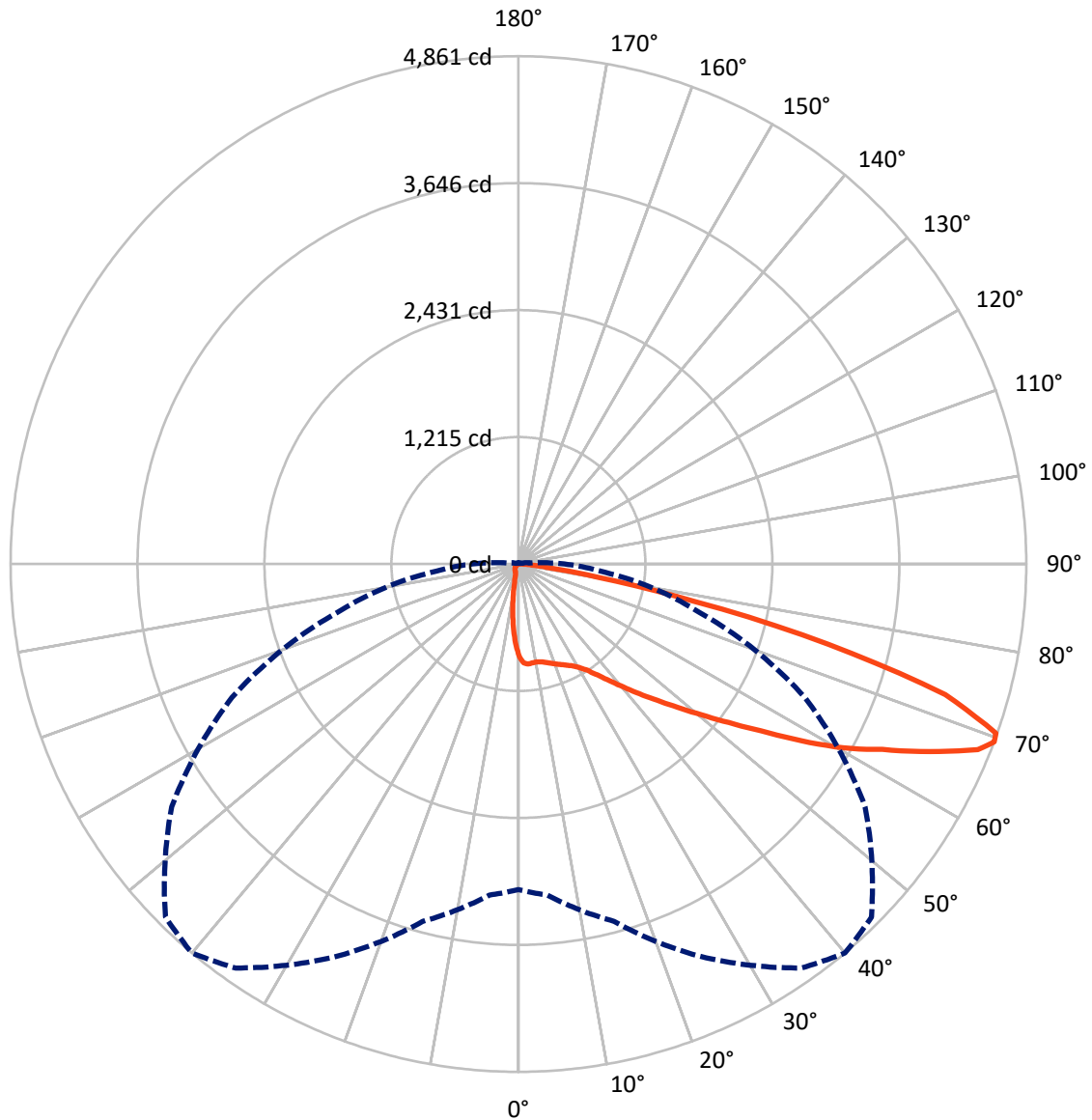


Based on 10 foot mounting height. Maximum calculated value = 9.7 fc
 Type IV - Short - Semi-Cutoff

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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	346.1	0.0	346.1
	% Fixture	5.9	0.0	5.9
Street Side	Lumens	5570.0	0.0	5570.0
	% Fixture	94.1	0.0	94.1
Total	Lumens	5916.1	0.0	5916.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.7	1.2
10°-20°	176.2	3.0
20°-30°	296.9	5.0
30°-40°	486.0	8.2
40°-50°	841.4	14.2
50°-60°	1325.3	22.4
60°-70°	1730.8	29.3
70°-80°	891.4	15.1
80°-90°	96.4	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°	5916.1	100.0
0°-180°	5916.1	100.0

Coefficient of Utilization



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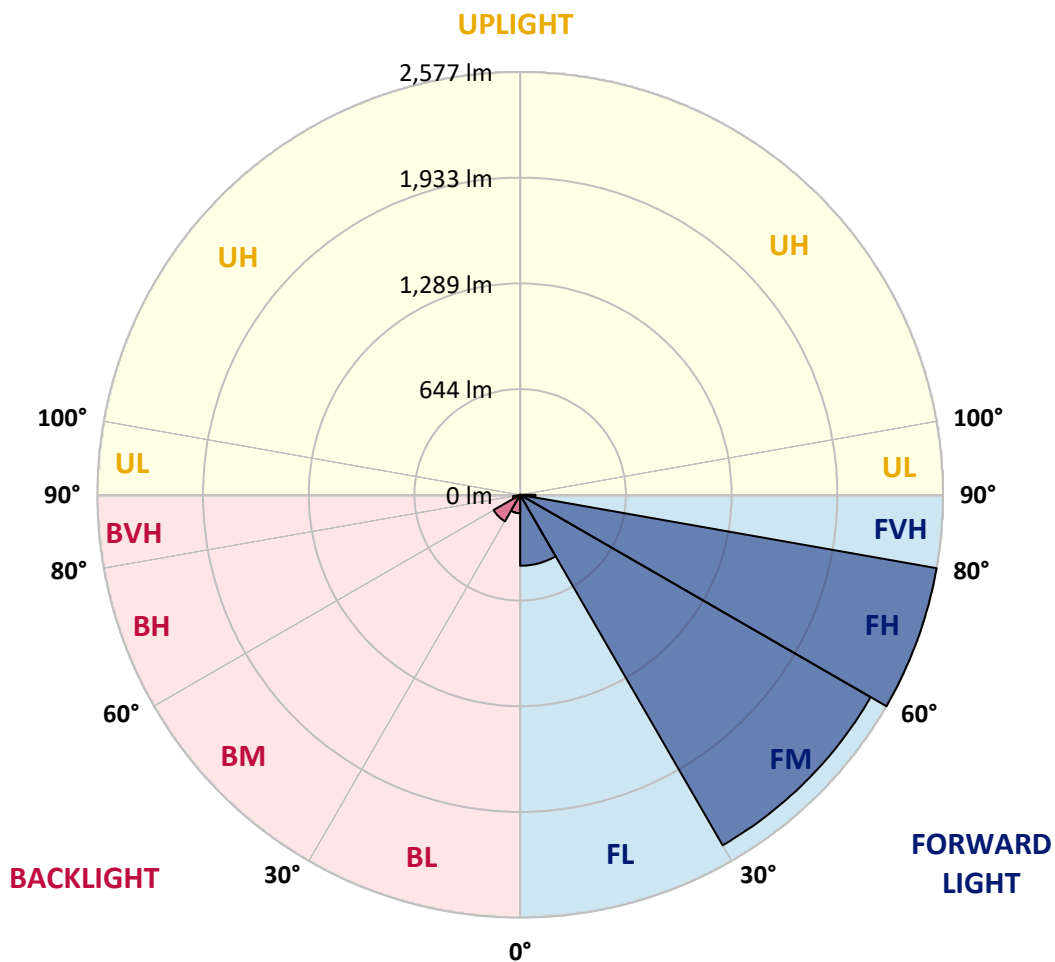
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	432.6	7.3			
FM	(30°-60°)	2466.6	41.7			
FH	(60°-80°)	2577.3	43.6			G2/5000
FVH	(80°-90°)	93.4	1.6			G1/100
BL	(0°-30°)	112.1	1.9	B1/500		
BM	(30°-60°)	186.0	3.1	B0/220		
BH	(60°-80°)	44.9	0.8	B0/110		G0/110
BVH	(80°-90°)	3.0	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	883.9	883.9	883.9	883.9	883.9	883.9	883.9	883.9	883.9	883.9	883.9
2.5°	970.5	965.2	962.1	957.8	952.6	948.0	946.2	933.2	920.9	904.0	884.6
5°	988.5	986.7	981.1	975.5	969.1	962.1	958.2	942.7	925.1	900.4	866.6
7.5°	990.2	988.1	981.1	973.3	964.5	956.1	949.4	933.9	917.7	892.7	851.5
10°	987.4	985.0	979.7	971.2	960.3	952.2	945.5	930.7	917.0	894.5	848.7
12.5°	984.3	981.8	979.3	975.1	965.6	960.0	954.3	940.2	927.9	908.9	858.9
15°	987.4	986.0	988.8	987.1	981.8	976.9	971.2	958.5	947.3	931.4	877.6
17.5°	1000.8	1000.8	1009.6	1010.7	1005.7	998.7	990.6	977.9	968.4	955.0	899.7
20°	1032.1	1031.1	1042.4	1044.5	1032.5	1021.6	1009.6	994.1	986.7	978.3	921.6
22.5°	1086.0	1081.1	1087.8	1085.7	1062.1	1045.2	1030.4	1011.4	1007.5	1003.6	945.9
25°	1156.1	1153.3	1157.9	1137.1	1095.5	1072.6	1055.0	1033.6	1033.6	1037.4	973.3
27.5°	1257.9	1247.3	1231.8	1195.2	1132.9	1103.6	1084.6	1061.7	1067.7	1082.2	1009.6
30°	1362.1	1350.5	1314.9	1258.6	1178.3	1147.7	1125.5	1101.5	1115.6	1142.0	1058.2
32.5°	1464.9	1451.9	1401.6	1330.4	1243.4	1212.8	1191.3	1164.9	1188.5	1232.9	1129.3
35°	1564.6	1553.0	1494.9	1411.1	1330.1	1304.7	1285.0	1262.1	1292.4	1354.4	1229.7
37.5°	1676.6	1663.9	1593.1	1502.3	1435.4	1417.0	1402.6	1379.7	1432.5	1523.4	1369.5
40°	1814.3	1792.8	1697.4	1606.9	1557.2	1548.4	1538.5	1535.4	1617.4	1743.1	1555.8
42.5°	1972.0	1936.8	1806.5	1717.1	1691.0	1697.4	1694.9	1709.0	1848.8	2016.4	1782.6
45°	2129.8	2084.4	1928.0	1834.7	1838.2	1860.4	1874.1	1930.5	2138.6	2329.8	2026.6
47.5°	2263.6	2218.9	2044.6	1961.8	2004.1	2047.7	2085.1	2191.8	2436.5	2638.3	2216.4
50°	2378.1	2335.8	2168.2	2101.6	2196.7	2267.1	2327.7	2485.8	2757.0	2873.2	2349.5
52.5°	2471.7	2443.6	2296.4	2261.9	2416.8	2520.0	2608.7	2798.2	3040.8	3064.0	2453.1
55°	2562.9	2542.9	2434.1	2452.4	2675.3	2815.8	2928.1	3129.5	3285.2	3223.2	2552.4
57.5°	2667.9	2649.6	2591.1	2693.9	3015.1	3191.9	3314.4	3423.2	3500.4	3385.9	2646.0
60°	2774.9	2764.4	2765.8	2962.3	3405.3	3575.0	3642.6	3670.8	3711.7	3539.1	2651.3
62.5°	2877.1	2897.1	2965.4	3260.9	3778.9	3909.2	3943.4	3971.2	3923.3	3563.4	2449.5
65°	3050.0	3082.7	3245.8	3660.6	4189.9	4329.3	4364.5	4269.1	3956.7	3249.3	1992.5
67.5°	3134.5	3194.3	3485.2	4033.2	4588.5	4743.4	4730.4	4288.5	3550.7	2477.7	1278.7
69°	3116.9	3180.6	3540.5	4147.3	4720.9	4861.4	4778.7	4051.5	3025.0	1794.9	784.9
70°	3047.1	3111.6	3512.0	4143.0	4737.8	4849.1	4689.2	3758.8	2557.7	1312.5	490.9
72.5°	2544.6	2600.3	3117.9	3744.8	4364.5	4274.0	3922.9	2604.1	1246.3	357.4	110.6
75°	1566.4	1597.3	2237.2	2821.1	3296.5	3064.0	2613.7	1295.6	371.5	101.1	61.3
77.5°	827.6	841.6	1224.8	1662.8	2089.7	1729.1	1339.6	505.3	171.1	63.4	44.4
80°	489.1	499.7	659.6	760.3	904.3	755.4	535.6	310.2	122.5	39.8	39.4
82.5°	280.0	286.6	478.2	422.6	356.4	304.3	266.6	294.0	73.6	26.8	40.8
85°	102.8	104.2	269.0	321.5	212.0	126.1	132.4	243.7	19.7	16.9	32.0
87.5°	47.9	46.8	138.4	196.9	124.0	79.9	103.2	53.5	7.7	10.9	8.8
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°	883.9	883.9	883.9	883.9	883.9	883.9	883.9	883.9	883.9	883.9	883.9
2.5°	873.3	860.3	836.7	812.4	787.8	768.7	750.1	735.3	730.4	721.2	721.9
5°	846.6	822.6	773.3	723.3	671.2	628.2	587.7	555.0	539.1	522.9	522.9
7.5°	823.3	788.5	711.3	630.0	545.8	475.0	411.3	363.4	337.0	315.9	315.5
10°	814.5	767.3	659.6	543.0	425.7	329.3	253.5	205.0	179.9	163.7	163.0
12.5°	818.4	759.9	619.8	462.7	315.5	211.6	146.8	115.5	104.9	100.0	100.0
15°	829.7	757.8	580.0	384.2	222.9	132.4	97.5	89.1	88.4	88.4	88.4
17.5°	843.4	758.5	539.1	307.8	151.8	94.7	84.2	83.1	83.8	83.8	83.8
20°	857.5	758.9	495.1	237.0	107.1	82.4	79.2	78.9	79.6	79.6	79.9
22.5°	874.7	760.6	451.1	177.1	88.4	77.8	75.4	75.4	75.7	75.7	75.4
25°	894.5	764.2	405.3	131.4	80.6	74.7	72.5	72.2	72.5	72.2	71.8
27.5°	919.1	769.1	354.3	102.8	77.1	71.5	69.7	69.7	69.4	69.0	68.7
30°	950.1	774.7	296.9	87.3	73.6	68.7	66.9	66.6	66.2	65.5	65.5
32.5°	997.3	787.1	240.2	79.2	69.7	64.8	63.4	63.4	62.7	62.0	61.6
35°	1069.8	811.4	189.5	74.3	65.5	60.6	58.8	58.8	58.1	57.8	57.4
37.5°	1170.2	848.3	147.2	69.7	61.3	56.0	54.2	53.9	53.2	52.5	52.1
40°	1303.7	894.1	115.9	65.5	57.0	51.4	50.0	49.3	47.9	46.8	46.8
42.5°	1471.3	946.2	94.0	60.9	52.1	47.2	46.1	45.1	42.6	41.6	41.2
45°	1646.6	993.1	79.6	55.6	47.2	43.0	42.3	40.5	37.3	36.3	36.3
47.5°	1773.1	1004.0	70.1	50.7	42.6	38.4	38.0	34.9	32.0	31.3	31.0
50°	1852.0	982.5	62.3	45.8	38.4	34.2	33.1	29.2	27.5	26.8	26.4
52.5°	1905.1	944.1	56.0	41.6	34.5	30.3	27.8	25.0	23.6	22.9	22.9
55°	1947.7	889.9	49.7	37.7	31.3	27.1	23.6	21.5	20.1	19.4	19.4
57.5°	1959.7	816.3	43.3	34.5	28.2	23.9	20.1	18.7	16.9	16.6	16.6
60°	1872.7	683.5	38.4	30.6	25.4	20.8	17.6	15.8	14.1	13.7	13.4
62.5°	1643.5	528.9	33.8	27.1	22.2	18.0	15.1	13.0	11.6	11.6	11.6
65°	1253.7	354.6	29.6	23.6	19.4	15.1	13.0	10.6	9.9	9.9	10.2
67.5°	750.4	193.0	25.4	20.1	16.6	12.7	10.9	9.2	8.8	9.2	9.2
69°	439.8	113.4	22.9	18.0	14.4	11.3	9.5	8.1	8.8	9.2	9.2
70°	271.5	76.4	21.1	16.2	13.0	10.2	8.8	7.7	8.5	8.8	8.8
72.5°	75.7	39.4	16.9	12.7	10.6	8.5	7.0	7.0	8.1	8.5	8.5
75°	49.3	29.2	13.0	9.5	8.1	6.7	6.0	6.7	7.7	8.1	8.1
77.5°	40.8	23.9	10.6	7.7	6.7	6.3	5.6	6.0	7.0	7.4	7.4
80°	37.3	16.9	8.5	7.0	6.0	5.6	5.3	4.9	6.3	6.7	6.7
82.5°	35.6	13.4	7.4	6.3	5.6	4.9	4.6	4.9	5.6	6.0	6.3
85°	22.2	8.8	6.7	6.0	4.9	4.6	4.6	4.6	5.3	5.6	5.6
87.5°	8.1	7.0	6.0	4.9	4.2	4.2	4.2	4.2	4.6	5.3	5.3
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)