

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: P299961

Luminaire Tested: **GLNA-AF-05-LED-E1-5WQ-8030-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299961
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24143)
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-E1-5WQ-8030-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 80 CRI, 3000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16787.5 lumens
Efficiency: N/A
Efficacy: 103.6 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type V - Short - Semi-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

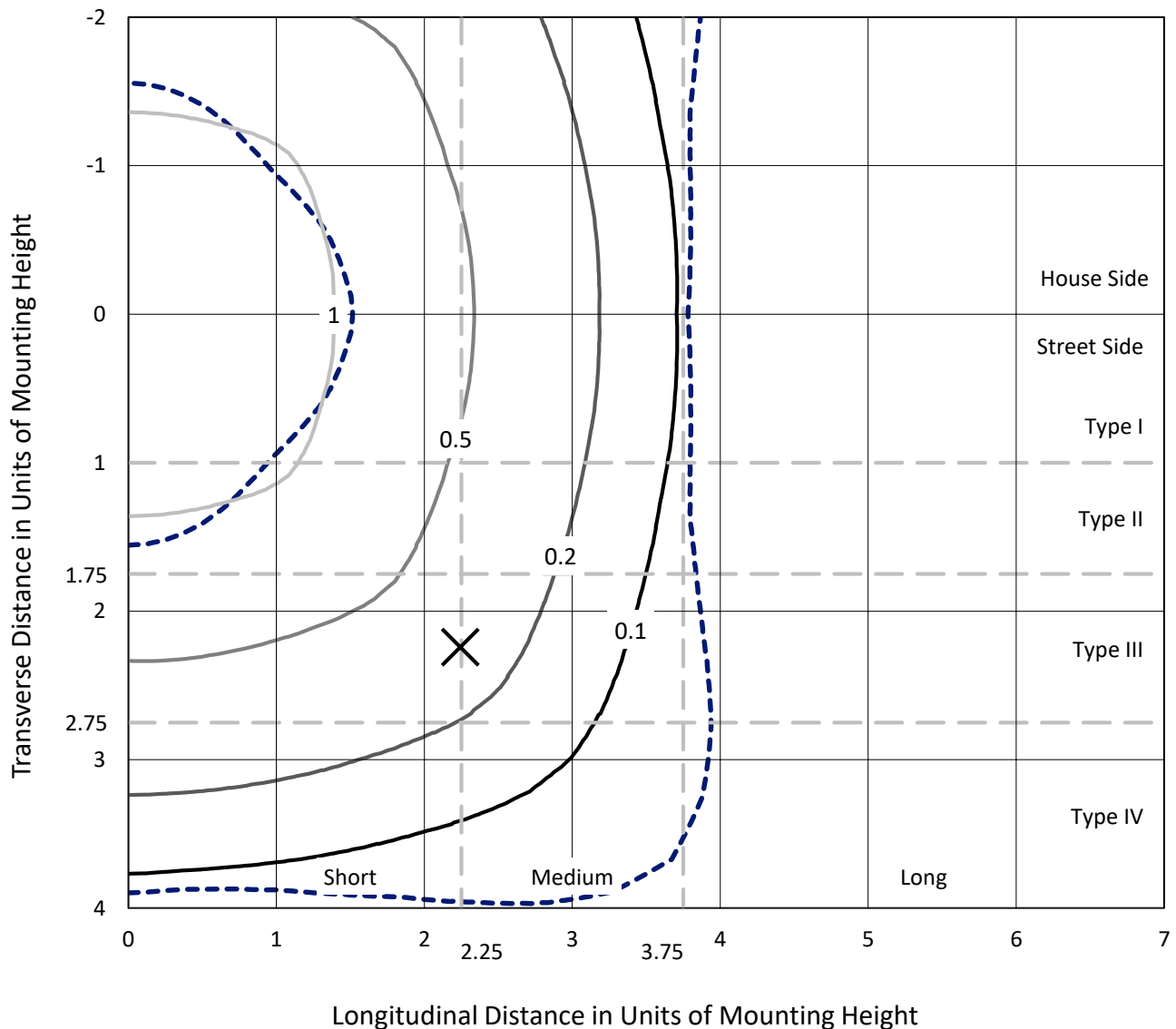


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

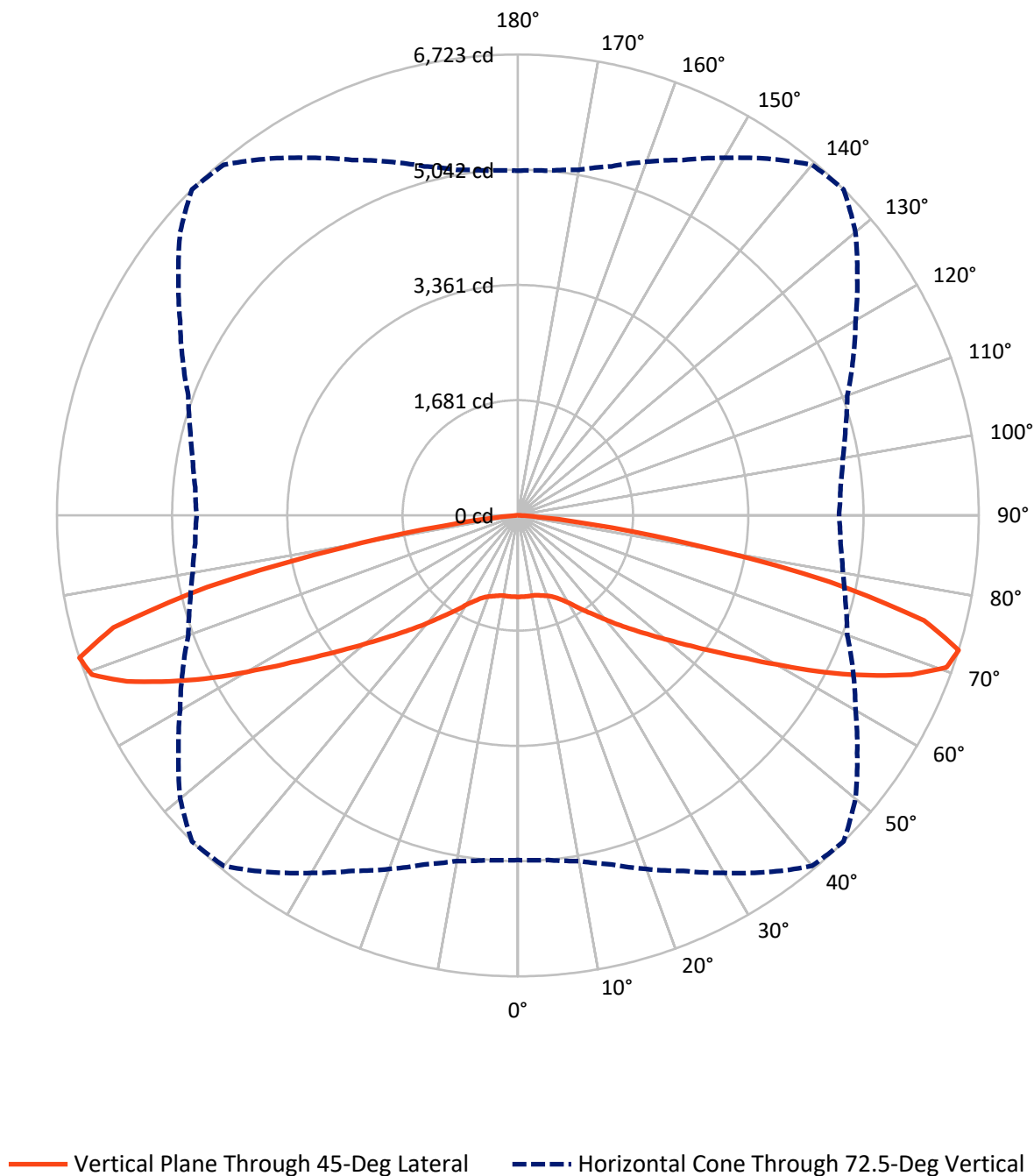


Based on 25 foot mounting height. Maximum calculated value = 1.9 fc
Type V - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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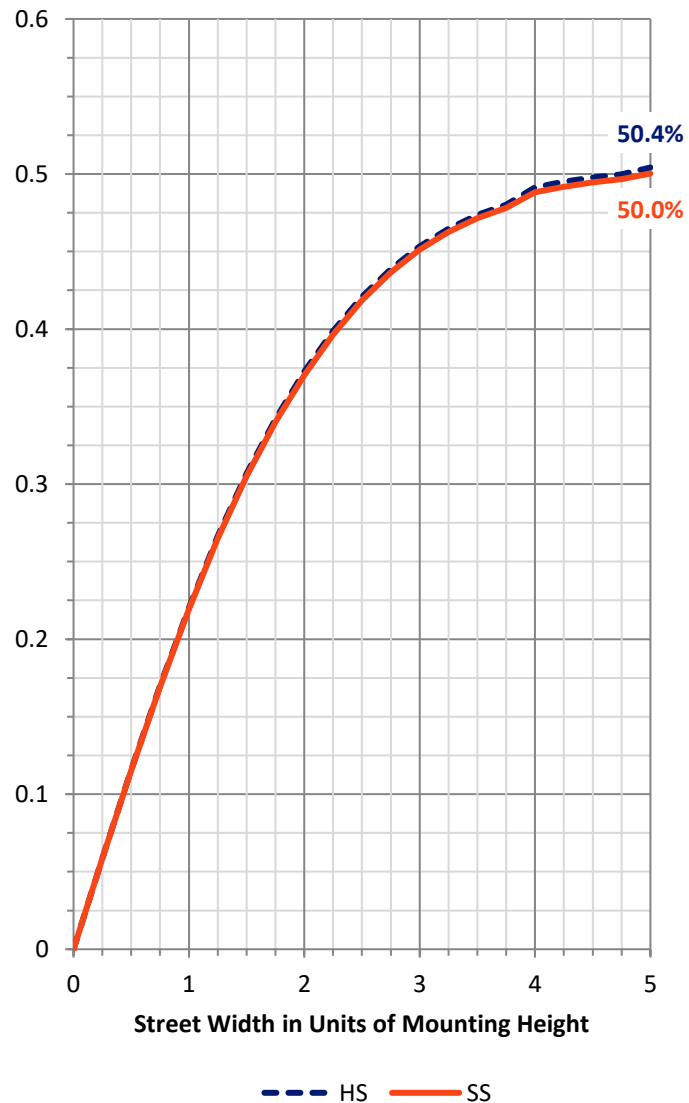
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8393.8	0.0	8393.8
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	8393.8	0.0	8393.8
	% Fixture	50.0	0.0	50.0
Total	Lumens	16787.5	0.0	16787.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	113.5	0.7
10°-20°	344.8	2.1
20°-30°	630.0	3.8
30°-40°	1086.3	6.5
40°-50°	1857.0	11.1
50°-60°	3009.9	17.9
60°-70°	4993.4	29.7
70°-80°	4398.0	26.2
80°-90°	354.6	2.1
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°	16787.5	100.0
0°-180°	16787.5	100.0

Coefficient of Utilization



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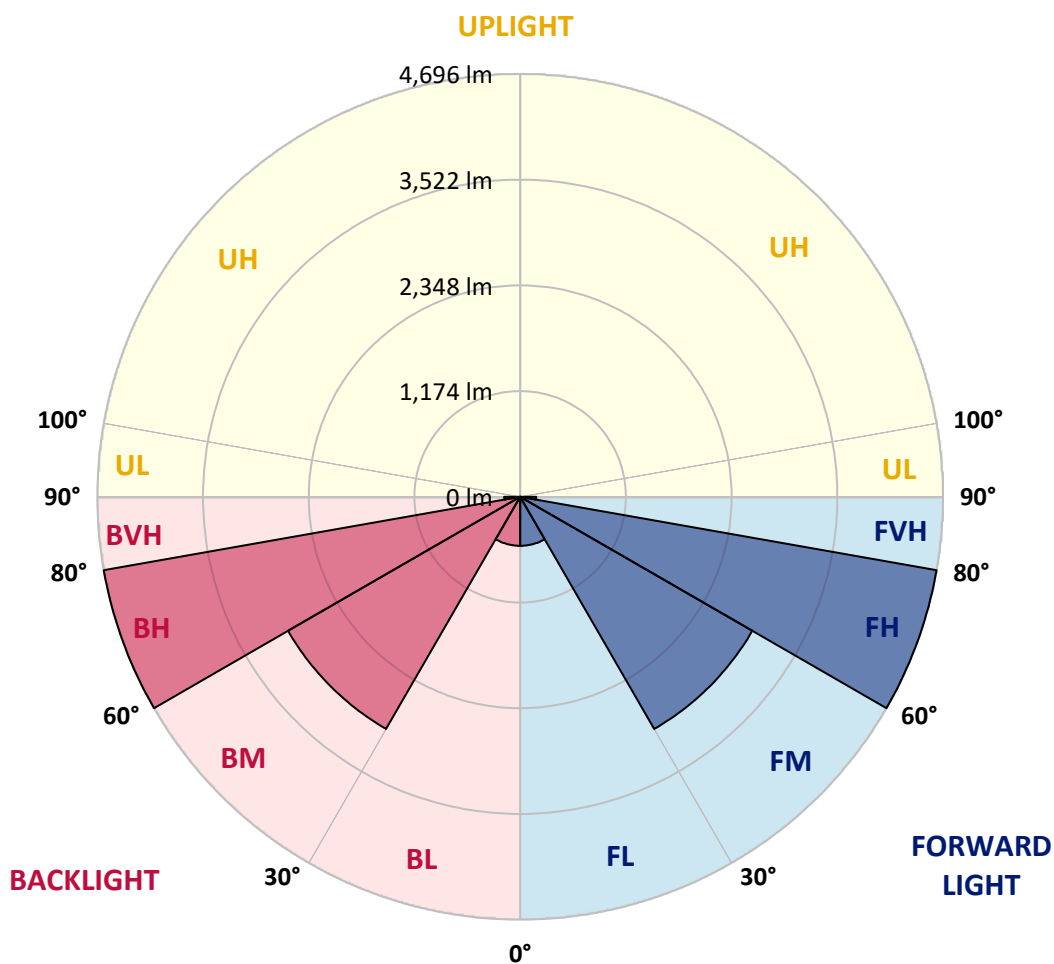
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	544.2	3.2			
FM	(30°-60°)	2976.6	17.7			
FH	(60°-80°)	4695.7	28.0			G2/5000
FVH	(80°-90°)	177.3	1.1			G2/225
BL	(0°-30°)	544.2	3.2	B2/1000		
BM	(30°-60°)	2976.6	17.7	B3/5000		
BH	(60°-80°)	4695.7	28.0	B4/5000		G2/5000
BVH	(80°-90°)	177.3	1.1			G2/225
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°	1188.8	1188.8	1188.8	1188.8	1188.8	1188.8	1188.8	1188.8	1188.8	1188.8	1188.8
2.5°	1188.8	1189.6	1190.4	1189.6	1189.6	1188.8	1188.0	1188.8	1188.0	1186.5	1187.3
5°	1192.7	1194.2	1194.2	1192.7	1193.4	1192.7	1191.1	1191.9	1190.4	1188.0	1188.0
7.5°	1197.3	1198.1	1198.1	1196.5	1197.3	1195.7	1194.2	1193.4	1191.9	1188.8	1186.5
10°	1204.2	1205.0	1204.2	1202.7	1202.7	1200.4	1196.5	1195.0	1191.9	1187.3	1185.0
12.5°	1211.9	1212.7	1211.9	1210.4	1209.6	1205.8	1202.7	1200.4	1198.1	1194.2	1190.4
15°	1222.7	1224.2	1222.7	1219.6	1217.3	1214.2	1212.7	1213.5	1214.2	1211.1	1207.3
17.5°	1242.7	1243.5	1241.2	1234.2	1231.2	1228.1	1228.1	1229.6	1231.9	1230.4	1226.5
20°	1279.7	1277.4	1272.0	1263.5	1259.7	1254.3	1253.5	1254.3	1254.3	1253.5	1250.4
22.5°	1325.9	1324.3	1317.4	1306.6	1301.2	1298.2	1293.5	1289.7	1288.9	1286.6	1283.5
25°	1381.3	1380.5	1372.1	1362.8	1359.0	1355.1	1351.3	1345.9	1341.3	1335.9	1332.8
27.5°	1452.1	1449.1	1436.7	1432.1	1426.7	1424.4	1419.0	1412.9	1409.0	1402.1	1398.2
30°	1529.9	1529.9	1519.9	1518.4	1518.4	1513.0	1506.8	1496.0	1489.1	1482.2	1479.9
32.5°	1607.7	1608.4	1598.4	1601.5	1603.8	1607.7	1609.2	1605.4	1600.7	1600.0	1595.4
35°	1720.1	1717.0	1707.0	1709.3	1708.5	1707.8	1707.8	1716.2	1717.8	1719.3	1710.1
37.5°	1859.5	1859.5	1849.4	1849.4	1844.8	1840.2	1834.0	1839.4	1847.9	1850.2	1844.1
40°	2018.8	2024.2	2011.9	2011.1	2012.7	1998.0	1991.1	1999.6	2005.0	2014.2	2007.3
42.5°	2206.7	2202.9	2190.5	2189.0	2180.5	2175.9	2169.7	2176.7	2185.1	2191.3	2193.6
45°	2386.9	2383.8	2369.9	2369.9	2361.5	2357.6	2360.7	2372.2	2376.1	2384.6	2393.0
47.5°	2564.7	2560.9	2551.6	2555.5	2556.3	2563.2	2573.2	2584.0	2594.8	2606.3	2610.2
50°	2746.4	2747.2	2737.2	2746.4	2758.0	2777.2	2804.2	2821.9	2844.2	2858.9	2863.5
52.5°	2912.0	2915.1	2925.8	2947.4	2970.5	3008.2	3054.4	3097.5	3134.5	3159.1	3157.6
55°	3110.6	3115.3	3141.4	3178.4	3216.1	3273.1	3341.6	3417.9	3479.4	3514.9	3492.5
57.5°	3364.7	3374.7	3404.0	3454.0	3510.2	3584.2	3678.1	3792.8	3888.3	3936.0	3899.8
60°	3713.5	3719.7	3755.1	3810.5	3878.3	3969.9	4095.4	4249.4	4384.1	4447.3	4405.7
62.5°	4173.2	4184.7	4213.2	4269.4	4338.7	4442.7	4595.9	4788.4	4956.2	5044.0	4950.1
65°	4722.2	4759.1	4783.0	4840.0	4904.6	5014.7	5174.9	5381.2	5561.4	5619.2	5510.6
67.5°	5265.8	5298.1	5339.7	5405.1	5470.6	5594.5	5743.1	5943.3	6141.2	6193.6	6024.9
70°	5503.7	5522.1	5586.8	5676.1	5801.6	5947.9	6119.6	6344.5	6589.3	6632.4	6418.4
72.5°	5027.1	5045.5	5117.9	5269.6	5488.3	5720.8	6020.3	6350.6	6674.0	6722.5	6427.6
75°	3802.1	3772.0	3879.1	4080.0	4374.9	4699.1	5117.9	5591.4	6058.8	6119.6	5767.8
77.5°	1964.9	1961.1	2041.9	2291.4	2643.3	3012.1	3473.3	4008.4	4465.8	4650.6	4364.1
80°	553.6	559.8	598.3	722.2	927.8	1194.2	1554.5	2055.8	2430.0	2620.9	2460.8
82.5°	217.1	234.1	248.7	271.8	298.7	338.0	451.2	671.4	900.9	1076.4	881.6
85°	77.8	83.2	117.8	139.4	141.7	149.4	170.2	198.6	239.5	285.7	234.8
87.5°	29.3	32.3	37.7	62.4	61.6	56.2	68.5	71.6	53.9	49.3	60.8
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):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1188.8	1188.8	1188.8	1188.8	1188.8	1188.8	1188.8	1188.8
2.5°	1185.7	1186.5	1186.5	1187.3	1188.0	1188.0	1189.6	1189.6
5°	1186.5	1186.5	1185.0	1185.7	1185.0	1185.0	1185.7	1185.7
7.5°	1185.0	1184.2	1182.7	1181.9	1180.3	1180.3	1180.3	1180.3
10°	1182.7	1181.9	1180.3	1179.6	1178.8	1178.8	1178.8	1178.8
12.5°	1188.8	1186.5	1185.0	1184.2	1184.2	1184.2	1184.2	1184.2
15°	1205.0	1199.6	1195.7	1195.7	1196.5	1198.1	1198.1	1199.6
17.5°	1225.0	1218.8	1215.0	1211.9	1213.5	1215.8	1217.3	1218.8
20°	1248.9	1245.8	1240.4	1237.3	1237.3	1240.4	1241.9	1242.7
22.5°	1282.0	1279.7	1277.4	1273.5	1273.5	1275.1	1278.1	1278.1
25°	1331.3	1329.7	1328.2	1325.1	1324.3	1324.3	1325.9	1327.4
27.5°	1392.9	1393.6	1392.1	1391.3	1389.0	1388.2	1390.5	1389.8
30°	1475.2	1479.1	1482.9	1479.9	1476.0	1473.7	1471.4	1468.3
32.5°	1586.9	1582.3	1579.2	1573.8	1566.9	1560.7	1556.1	1550.7
35°	1692.4	1684.7	1681.6	1686.2	1685.4	1681.6	1676.2	1671.6
37.5°	1821.7	1820.2	1821.7	1830.2	1828.7	1832.5	1821.7	1821.0
40°	1985.0	1986.5	1997.3	2007.3	2012.7	2018.1	2011.9	2005.7
42.5°	2174.4	2173.6	2177.4	2191.3	2200.5	2206.7	2193.6	2192.1
45°	2374.6	2369.2	2372.2	2383.8	2393.0	2400.0	2385.3	2385.3
47.5°	2594.8	2585.5	2575.5	2588.6	2594.0	2598.6	2587.1	2583.2
50°	2840.4	2821.1	2799.6	2805.0	2805.0	2803.4	2788.8	2788.0
52.5°	3122.2	3086.8	3047.5	3032.9	3024.4	3015.2	2989.8	2977.4
55°	3446.3	3393.2	3331.6	3293.9	3273.9	3248.5	3206.1	3194.6
57.5°	3825.2	3742.0	3635.7	3589.6	3544.9	3503.3	3456.3	3443.3
60°	4274.0	4151.6	4010.7	3925.3	3876.7	3836.7	3788.2	3785.9
62.5°	4774.5	4581.3	4421.9	4344.9	4309.5	4274.0	4227.8	4234.0
65°	5283.5	5081.7	4932.4	4870.0	4836.9	4807.6	4761.4	4768.4
67.5°	5785.5	5599.9	5435.9	5372.0	5335.0	5298.1	5256.5	5263.4
70°	6145.8	5915.6	5730.8	5589.1	5500.6	5400.5	5335.8	5319.7
72.5°	6042.6	5687.7	5394.3	5113.3	4948.5	4814.6	4723.7	4684.4
75°	5229.6	4744.5	4367.2	4022.3	3828.2	3670.4	3555.7	3484.1
77.5°	3883.7	3338.5	2892.7	2495.4	2181.3	1970.3	1821.7	1725.5
80°	2125.9	1616.9	1181.9	830.8	610.6	507.4	448.1	419.6
82.5°	662.2	427.3	314.9	271.8	252.5	241.8	224.1	195.6
85°	211.0	184.8	171.7	164.0	156.3	136.3	93.9	85.5
87.5°	81.6	83.9	83.2	78.5	80.1	57.7	46.2	40.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)