

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: P197521

Luminaire Tested: **TT-C4-LED-E1-CQ-LWR-LW-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P197521
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P115438)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: TT-C4-LED-E1-CQ-LWR-LW-8030
Description: TOPTIER LED PARKING GARAGE LUMINAIRE
CONCENTRATED DISTRIBUTION WITH LumaWatt WIRELESS SENSOR
Light Source: (160) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5197.1 lumens
Efficiency: N/A
Efficacy: 89.6 lumens/watt
Luminous Opening: Circular (Dia: 1.12' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B2 - U0 - G1

Input Watts (W): 58
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

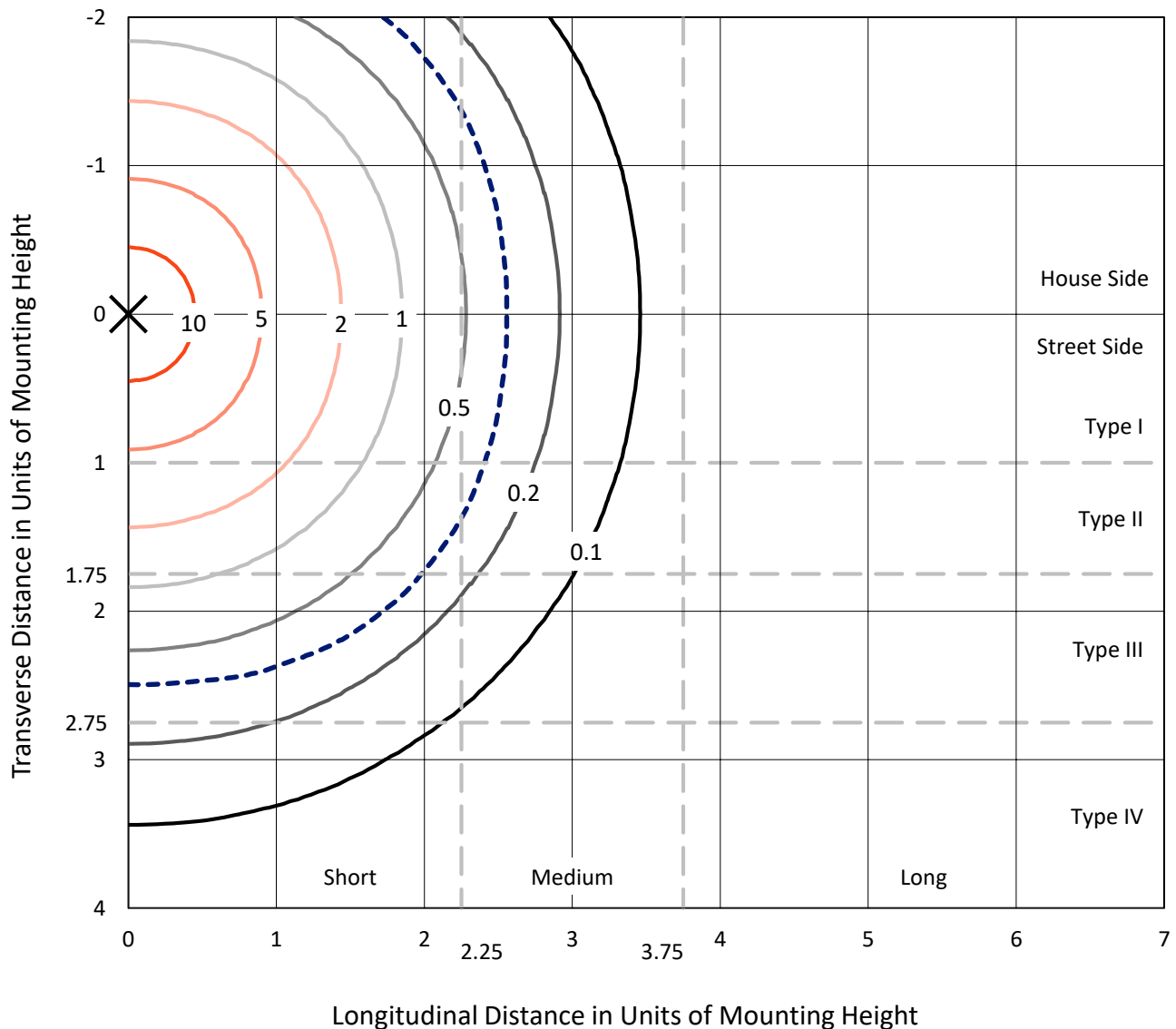


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

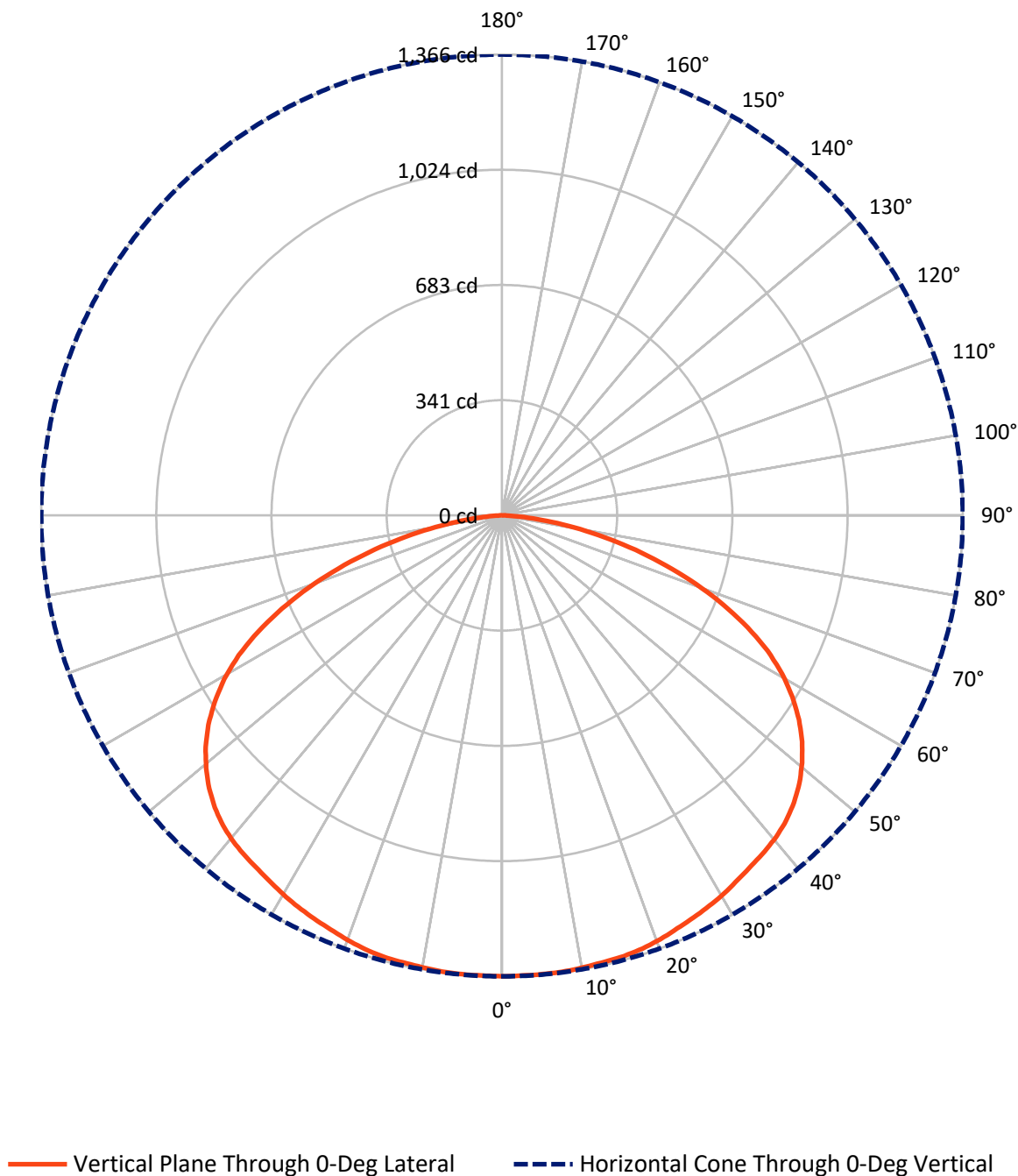


Based on 10 foot mounting height. Maximum calculated value = 13.7 fc
Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



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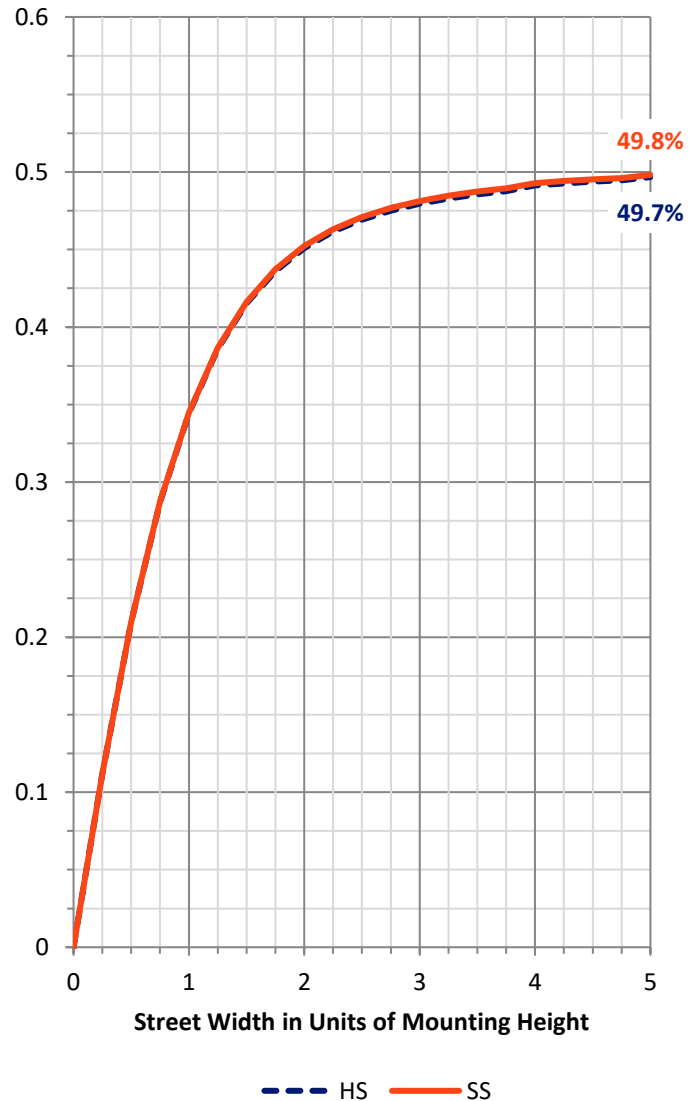
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2598.6	0.0	2598.6
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	2598.6	0.0	2598.6
	% Fixture	50.0	0.0	50.0
Total	Lumens	5197.1	0.0	5197.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.1	2.5
10°-20°	383.3	7.4
20°-30°	610.4	11.7
30°-40°	800.3	15.4
40°-50°	943.9	18.2
50°-60°	977.6	18.8
60°-70°	817.5	15.7
70°-80°	445.6	8.6
80°-90°	88.4	1.7
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°	5197.1	100.0
0°-180°	5197.1	100.0

Coefficient of Utilization



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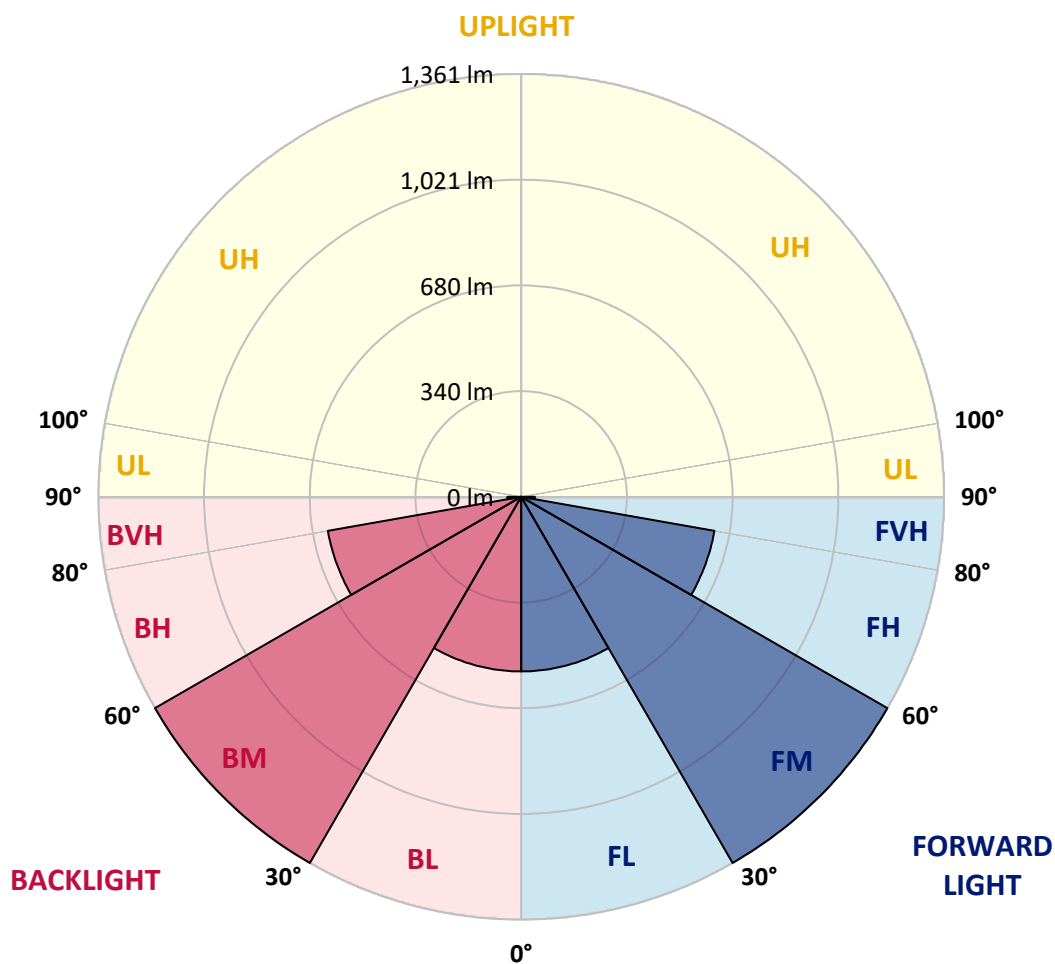
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	561.9	10.8			
FM	(30°-60°)	1360.9	26.2			
FH	(60°-80°)	631.6	12.2			G0/660
FVH	(80°-90°)	44.2	0.9			G1/100
BL	(0°-30°)	561.9	10.8	B2/1000		
BM	(30°-60°)	1360.9	26.2	B2/2500		
BH	(60°-80°)	631.6	12.2	B2/1000		G0/660
BVH	(80°-90°)	44.2	0.9			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G1

Type V Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1365.8	1365.8	1365.8	1365.8	1365.8	1365.8	1365.8	1365.8	1365.8	1365.8	1365.8
2.5°	1364.7	1365.8	1365.8	1365.8	1365.8	1365.8	1365.8	1365.8	1364.7	1365.8	1365.8
5°	1364.7	1364.7	1364.7	1364.7	1365.8	1364.7	1364.7	1364.7	1364.7	1364.7	1364.7
7.5°	1363.6	1362.5	1362.5	1362.5	1362.5	1362.5	1363.6	1363.6	1363.6	1363.6	1363.6
10°	1360.4	1360.4	1360.4	1360.4	1360.4	1360.4	1360.4	1360.4	1360.4	1360.4	1360.4
12.5°	1357.1	1357.1	1357.1	1357.1	1358.2	1358.2	1358.2	1358.2	1358.2	1358.2	1357.1
15°	1354.9	1354.9	1354.9	1354.9	1354.9	1354.9	1354.9	1354.9	1354.9	1354.9	1354.9
17.5°	1349.4	1349.4	1349.4	1349.4	1350.5	1350.5	1350.5	1350.5	1350.5	1350.5	1350.5
20°	1340.7	1340.7	1340.7	1340.7	1340.7	1341.8	1342.9	1342.9	1342.9	1342.9	1342.9
22.5°	1329.7	1329.7	1330.8	1330.8	1331.9	1331.9	1333.0	1333.0	1333.0	1333.0	1333.0
25°	1319.9	1319.9	1319.9	1321.0	1321.0	1321.0	1322.1	1323.2	1323.2	1323.2	1322.1
27.5°	1310.1	1310.1	1310.1	1311.1	1311.1	1311.1	1312.2	1312.2	1313.3	1312.2	1312.2
30°	1299.1	1298.0	1298.0	1299.1	1300.2	1300.2	1301.3	1301.3	1301.3	1301.3	1300.2
32.5°	1286.0	1286.0	1287.1	1288.2	1288.2	1289.3	1290.4	1290.4	1290.4	1291.5	1289.3
35°	1274.0	1275.1	1275.1	1276.2	1278.3	1279.4	1280.5	1281.6	1281.6	1281.6	1279.4
37.5°	1264.1	1265.2	1266.3	1268.5	1270.7	1272.9	1275.1	1277.2	1276.2	1276.2	1272.9
40°	1252.1	1253.2	1255.4	1257.6	1261.9	1264.1	1267.4	1269.6	1270.7	1269.6	1266.3
42.5°	1235.7	1236.8	1239.0	1242.3	1247.7	1252.1	1255.4	1258.7	1259.8	1258.7	1255.4
45°	1213.8	1214.9	1217.1	1221.5	1228.0	1232.4	1237.9	1241.2	1243.3	1243.3	1240.1
47.5°	1186.5	1187.6	1190.9	1195.2	1201.8	1207.3	1213.8	1218.2	1220.4	1222.6	1219.3
50°	1152.6	1153.7	1158.1	1163.5	1169.0	1176.6	1184.3	1190.9	1194.1	1195.2	1194.1
52.5°	1114.3	1115.4	1119.8	1125.2	1132.9	1141.6	1150.4	1158.1	1162.4	1164.6	1162.4
55°	1068.4	1070.6	1073.9	1081.5	1090.3	1097.9	1108.8	1117.6	1123.1	1124.2	1123.1
57.5°	1014.8	1018.1	1021.4	1030.1	1038.9	1049.8	1058.5	1067.3	1073.9	1074.9	1074.9
60°	954.7	956.8	960.1	968.9	978.7	986.4	998.4	1007.1	1012.6	1012.6	1013.7
62.5°	883.6	885.8	891.2	897.8	908.7	916.4	926.2	935.0	940.4	942.6	941.5
65°	800.5	802.7	805.9	814.7	823.4	832.2	842.0	849.7	855.1	856.2	855.1
67.5°	708.6	710.8	713.0	723.9	732.7	735.9	748.0	754.5	757.8	758.9	758.9
70°	611.3	612.4	615.7	621.1	631.0	634.2	641.9	647.4	649.6	653.9	650.7
72.5°	509.6	511.8	519.4	520.5	528.2	532.6	534.7	534.7	540.2	540.2	541.3
75°	409.0	410.1	413.4	414.4	419.9	419.9	418.8	421.0	425.4	425.4	426.5
77.5°	309.5	309.5	314.9	310.6	312.8	308.4	310.6	308.4	311.7	310.6	311.7
80°	216.5	216.5	219.8	215.4	216.5	212.1	213.2	212.1	212.1	213.2	213.2
82.5°	133.4	134.5	136.7	133.4	133.4	130.1	131.2	132.3	132.3	131.2	130.1
85°	65.6	65.6	67.8	66.7	65.6	63.4	64.5	65.6	65.6	64.5	64.5
87.5°	17.5	17.5	18.6	18.6	17.5	16.4	17.5	18.6	18.6	18.6	17.5
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):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1365.8	1365.8	1365.8	1365.8	1365.8	1365.8	1365.8	1365.8
2.5°	1364.7	1364.7	1365.8	1364.7	1365.8	1364.7	1365.8	1365.8
5°	1364.7	1364.7	1364.7	1364.7	1364.7	1364.7	1364.7	1364.7
7.5°	1362.5	1363.6	1362.5	1362.5	1362.5	1363.6	1362.5	1363.6
10°	1360.4	1360.4	1360.4	1360.4	1360.4	1360.4	1360.4	1360.4
12.5°	1357.1	1357.1	1357.1	1357.1	1357.1	1357.1	1357.1	1356.0
15°	1354.9	1353.8	1353.8	1353.8	1352.7	1352.7	1352.7	1352.7
17.5°	1350.5	1349.4	1348.3	1348.3	1348.3	1348.3	1347.2	1347.2
20°	1342.9	1341.8	1340.7	1340.7	1339.6	1339.6	1338.5	1338.5
22.5°	1331.9	1331.9	1330.8	1329.7	1329.7	1328.6	1328.6	1327.6
25°	1322.1	1321.0	1319.9	1318.8	1317.7	1317.7	1316.6	1315.5
27.5°	1311.1	1309.0	1307.9	1306.8	1305.7	1304.6	1303.5	1302.4
30°	1299.1	1296.9	1294.7	1293.7	1291.5	1289.3	1288.2	1287.1
32.5°	1287.1	1284.9	1281.6	1278.3	1276.2	1274.0	1271.8	1270.7
35°	1277.2	1272.9	1269.6	1265.2	1261.9	1258.7	1257.6	1256.5
37.5°	1269.6	1265.2	1259.8	1255.4	1252.1	1247.7	1245.5	1243.3
40°	1261.9	1256.5	1249.9	1244.4	1240.1	1234.6	1232.4	1230.2
42.5°	1251.0	1244.4	1237.9	1231.3	1224.8	1219.3	1216.0	1213.8
45°	1235.7	1229.1	1221.5	1212.7	1206.2	1199.6	1196.3	1194.1
47.5°	1214.9	1208.4	1199.6	1192.0	1184.3	1177.7	1173.4	1171.2
50°	1189.8	1183.2	1174.5	1165.7	1158.1	1150.4	1147.1	1143.8
52.5°	1158.1	1152.6	1142.7	1136.2	1127.4	1119.8	1116.5	1114.3
55°	1118.7	1113.2	1103.4	1096.8	1088.1	1081.5	1077.1	1073.9
57.5°	1070.6	1066.2	1055.3	1048.7	1040.0	1033.4	1030.1	1027.9
60°	1011.5	1007.1	996.2	989.6	982.0	974.3	972.2	970.0
62.5°	938.3	936.1	927.3	919.7	912.0	904.4	902.2	901.1
65°	853.0	850.8	843.1	836.6	830.0	823.4	821.2	819.1
67.5°	755.6	754.5	748.0	742.5	738.1	731.6	730.5	728.3
70°	651.7	649.6	644.1	639.7	636.4	631.0	629.9	627.7
72.5°	543.5	542.4	539.1	533.6	533.6	526.0	524.9	523.8
75°	424.3	429.8	425.4	423.2	423.2	418.8	418.8	417.7
77.5°	310.6	316.0	319.3	314.9	319.3	314.9	314.9	313.8
80°	212.1	216.5	219.8	216.5	222.0	218.7	218.7	223.1
82.5°	129.0	133.4	135.6	134.5	137.8	136.7	135.6	138.9
85°	63.4	65.6	66.7	66.7	67.8	65.6	67.8	68.9
87.5°	16.4	17.5	18.6	17.5	18.6	18.6	18.6	19.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)