

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: P821144

Luminaire Tested: **TT-D3-830-24VDC-CQ-HSS**

Issue Date: 12/2/2020

Test Information

Test Method: LM-79-08
Report Number: P821144
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2010-017-3)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: TT-D3-830-24VDC-CQ-HSS
Description: TOPTIER LED PARKING GARAGE LUMINAIRE
3000K, 80 CRI LEDS AND CONCENTRATED DISTRIBUTION WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

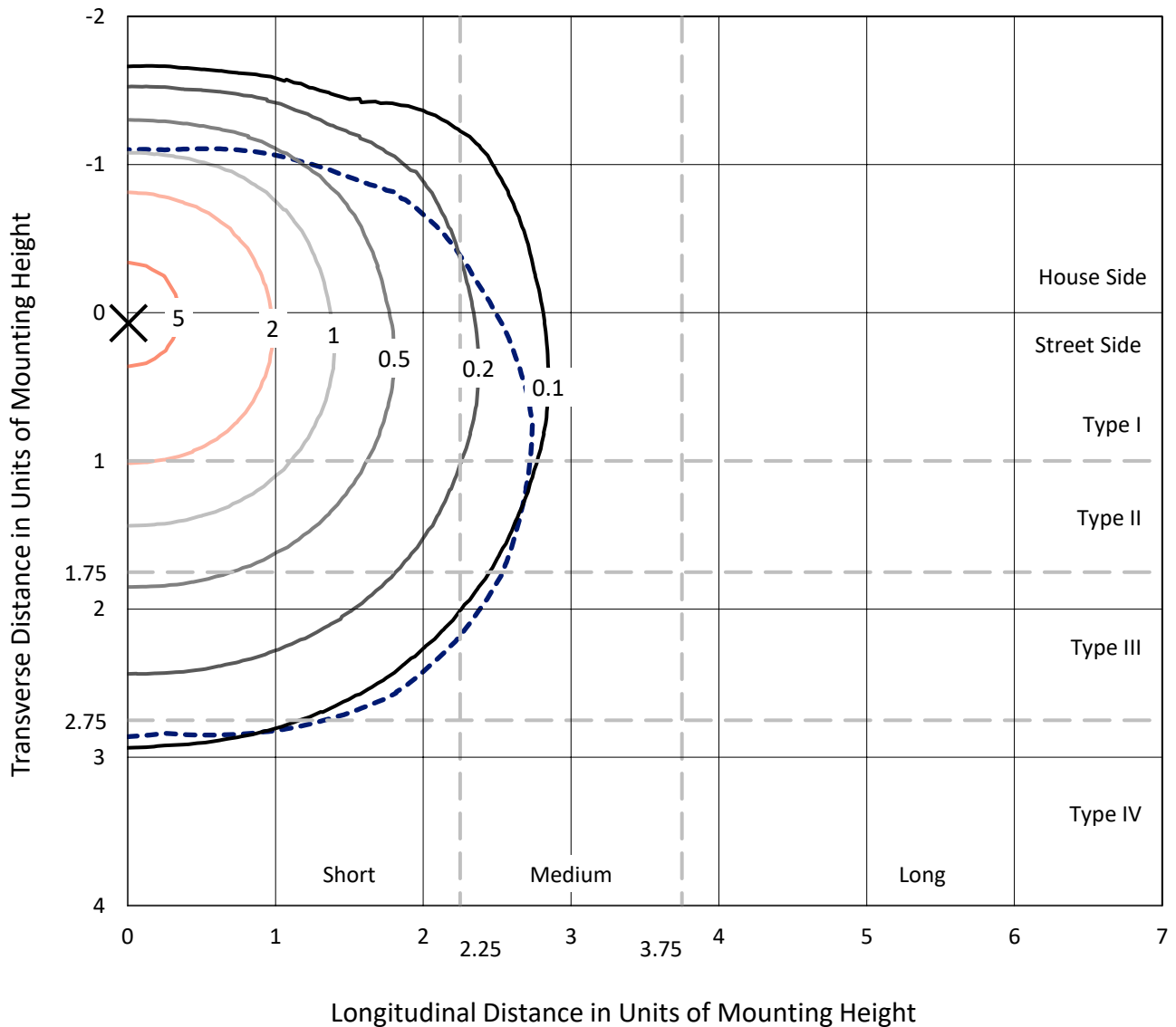
Lumens per Lamp: N/A
Luminaire Lumens: 4735.1 lumens
Efficiency: N/A
Efficacy: 102.9 lumens/watt
Luminous Opening: Circular (Dia: 1.12' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U1 - G1

Input Watts (W): 46
Input Voltage (V): NR
Input Current (A_{in}): 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

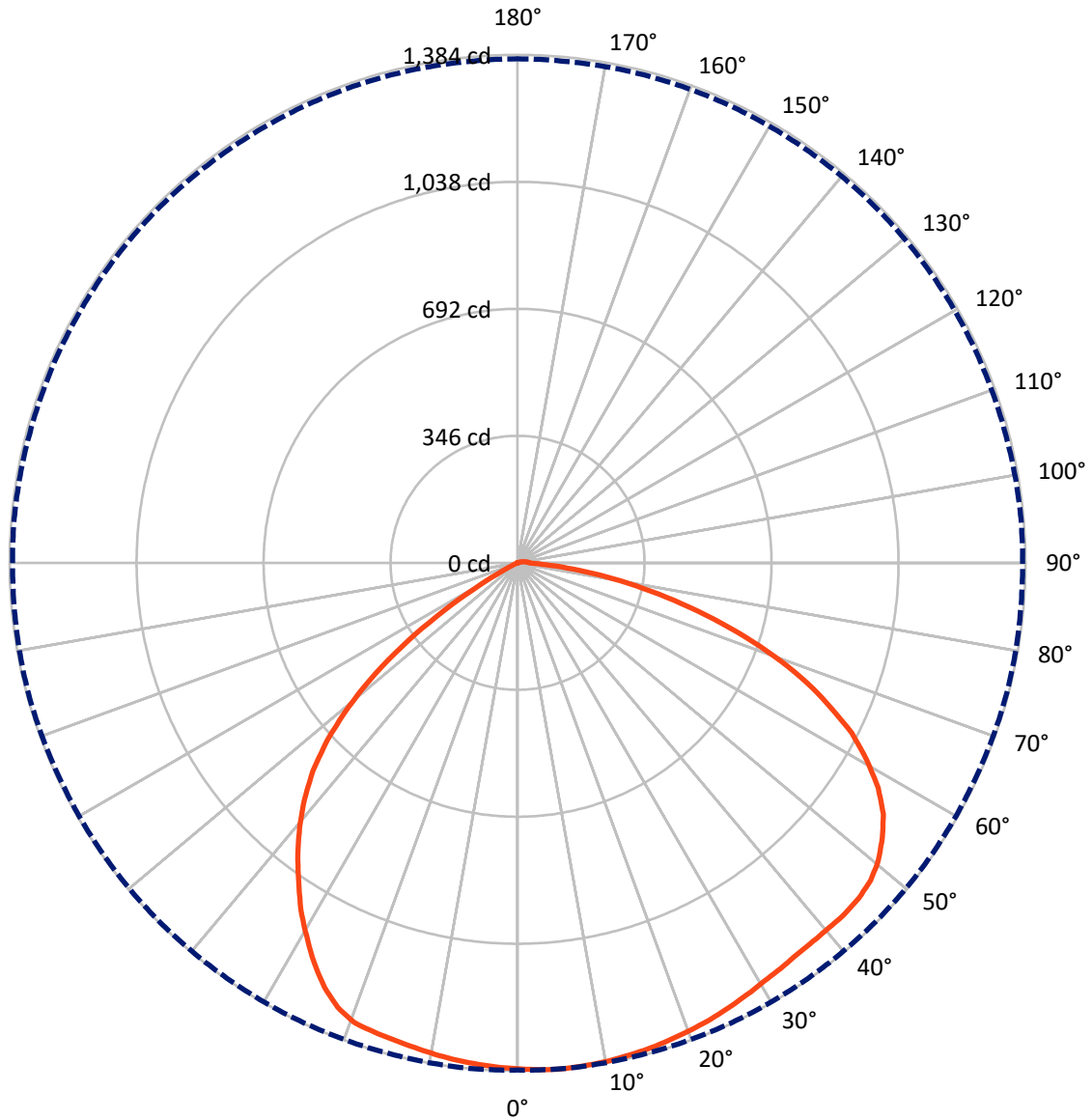
✕ Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 6.1 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 5-Deg Lateral - - - Horizontal Cone Through 4-Deg Vertical

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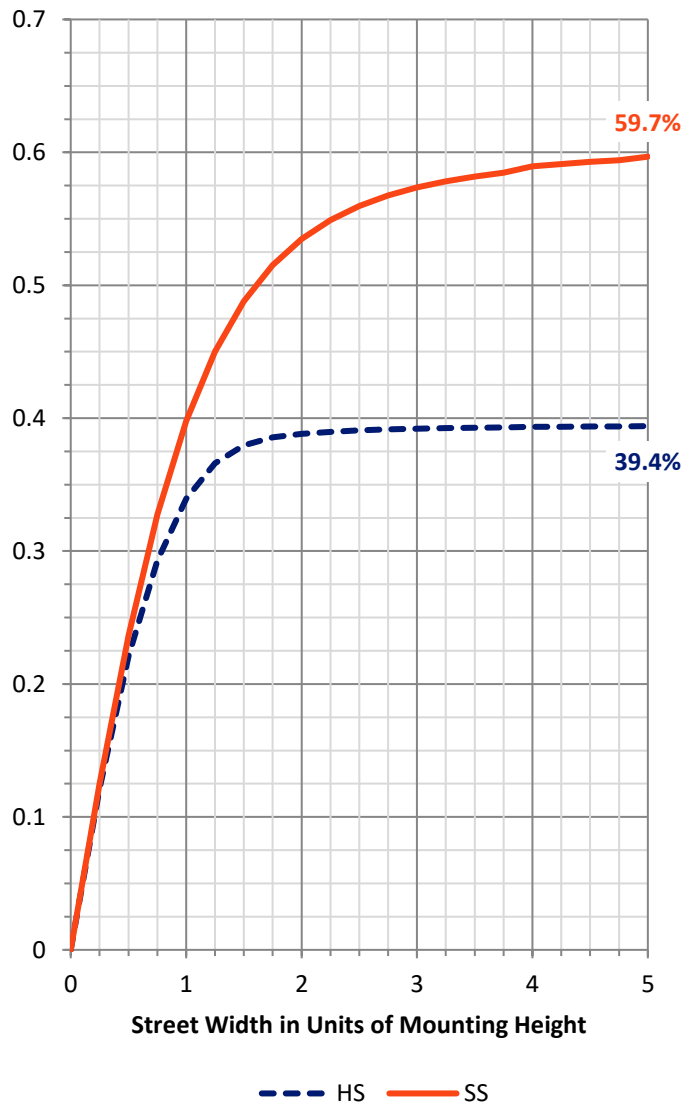
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1876.5	2.4	1878.9
	% Fixture	39.6	0.1	39.7
Street Side	Lumens	2842.9	13.2	2856.2
	% Fixture	60.0	0.3	60.3
Total	Lumens	4719.4	15.7	4735.1
	% Fixture	99.7	0.3	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.1	2.8
10°-20°	383.8	8.1
20°-30°	604.8	12.8
30°-40°	769.7	16.3
40°-50°	889.0	18.8
50°-60°	870.5	18.4
60°-70°	648.3	13.7
70°-80°	351.2	7.4
80°-90°	71.2	1.5
90°-100°	9.0	0.2
100°-110°	3.5	0.1
110°-120°	1.0	0.0
120°-130°	0.7	0.0
130°-140°	0.6	0.0
140°-150°	0.4	0.0
150°-160°	0.2	0.0
160°-170°	0.1	0.0
170°-180°	0.1	0.0
0°-90°	4719.4	99.7
0°-180°	4735.1	100.0

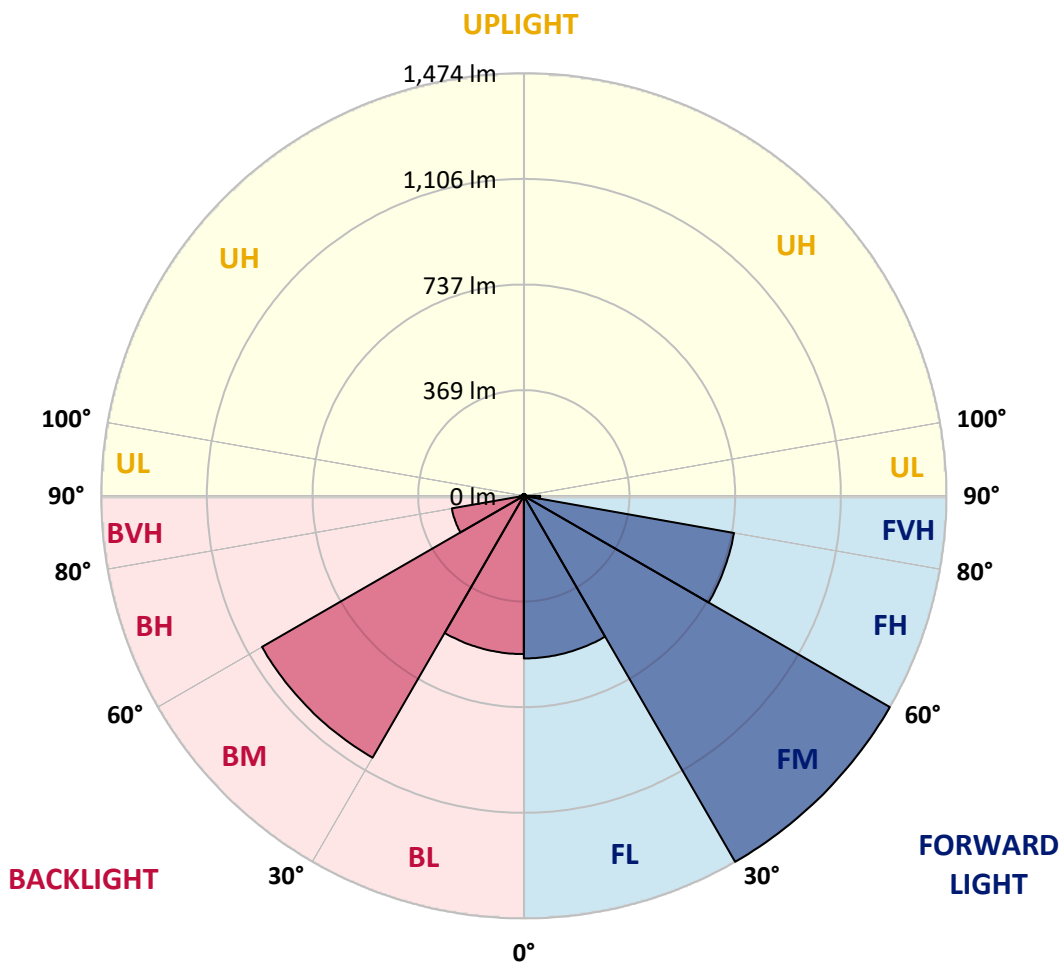


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	567.4	12.0			
FM (30°-60°)	1474.3	31.1			
FH (60°-80°)	744.5	15.7			G1/1800
FVH (80°-90°)	56.8	1.2			G1/100
BL (0°-30°)	552.3	11.7	B2/1000		
BM (30°-60°)	1054.8	22.3	B2/2500		
BH (60°-80°)	255.0	5.4	B1/500		G1/500
BVH (80°-90°)	14.3	0.3			G1/100
UL (90°-100°)	9.0	0.2		U1/10	
UH (100°-180°)	6.6	0.1		U1/10	

BUG Rating: B2-U1-G1
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1379.1	1379.1	1379.1	1379.1	1379.1	1379.1	1379.1	1379.1	1379.1	1379.1	1379.1
2.5°	1380.9	1382.7	1381.8	1381.8	1380.0	1380.9	1380.0	1380.0	1379.1	1378.2	1378.2
4°	1381.8	1383.6	1381.8	1381.8	1380.9	1380.9	1380.0	1378.2	1379.1	1376.4	1375.5
5°	1382.7	1383.6	1382.7	1382.7	1380.9	1380.0	1378.2	1378.2	1377.3	1375.5	1375.5
7.5°	1380.9	1381.8	1381.8	1380.9	1379.1	1377.3	1376.4	1375.5	1374.7	1372.0	1372.0
10°	1377.3	1379.1	1377.3	1377.3	1376.4	1374.7	1372.0	1371.1	1368.4	1366.6	1365.7
12.5°	1373.8	1374.7	1373.8	1373.8	1372.0	1369.3	1368.4	1366.6	1363.1	1360.4	1360.4
15°	1368.4	1370.2	1369.3	1368.4	1367.5	1364.9	1362.2	1359.5	1356.8	1354.2	1354.2
17.5°	1362.2	1363.1	1364.0	1363.1	1361.3	1359.5	1356.8	1353.3	1350.6	1347.9	1347.1
20°	1355.1	1356.8	1356.8	1356.8	1355.1	1353.3	1349.7	1346.2	1344.4	1340.8	1339.9
22.5°	1347.9	1349.7	1348.8	1349.7	1348.8	1346.2	1342.6	1339.0	1335.5	1332.8	1331.0
25°	1340.8	1340.8	1340.8	1340.8	1340.8	1337.3	1333.7	1329.2	1325.7	1321.2	1321.2
27.5°	1331.9	1331.9	1332.8	1332.8	1331.9	1329.2	1324.8	1319.5	1314.1	1309.7	1307.9
30°	1323.9	1323.0	1324.8	1326.6	1325.7	1323.0	1317.7	1311.4	1303.4	1297.2	1291.9
32.5°	1314.1	1316.8	1318.6	1322.1	1323.0	1319.5	1313.2	1305.2	1297.2	1285.6	1275.8
35°	1310.5	1310.5	1315.0	1320.3	1322.1	1320.3	1311.4	1302.5	1291.0	1274.0	1262.5
37.5°	1307.0	1307.9	1315.0	1323.0	1325.7	1325.7	1315.9	1304.3	1288.3	1264.3	1250.0
40°	1305.2	1307.0	1315.9	1327.5	1334.6	1333.7	1322.1	1307.9	1288.3	1257.1	1239.3
42.5°	1303.4	1307.0	1316.8	1332.8	1343.5	1342.6	1330.1	1311.4	1286.5	1248.2	1227.7
45°	1300.8	1303.4	1316.8	1337.3	1351.5	1354.2	1339.9	1315.9	1286.5	1240.2	1213.5
47.5°	1292.7	1293.6	1311.4	1335.5	1356.8	1360.4	1346.2	1317.7	1282.9	1226.9	1195.7
50°	1271.4	1274.0	1294.5	1326.6	1351.5	1356.8	1344.4	1313.2	1274.0	1204.6	1167.2
52.5°	1243.8	1243.8	1268.7	1304.3	1334.6	1343.5	1331.9	1297.2	1251.8	1171.7	1128.9
55°	1202.8	1209.1	1234.9	1272.3	1305.2	1317.7	1301.6	1267.8	1215.3	1129.8	1082.6
57.5°	1156.5	1158.3	1185.0	1229.5	1263.4	1271.4	1258.0	1218.0	1167.2	1080.0	1023.9
60°	1089.7	1093.3	1127.1	1166.3	1202.8	1213.5	1196.6	1156.5	1103.1	1015.9	958.9
62.5°	1015.9	1021.2	1051.5	1091.5	1126.3	1143.2	1122.7	1080.8	1028.3	939.3	889.4
65°	926.8	928.6	961.5	1006.9	1041.7	1047.9	1030.1	989.1	936.6	851.1	806.6
67.5°	824.4	833.3	865.4	899.2	929.5	936.6	924.1	877.0	835.1	759.4	715.8
70°	725.6	721.2	747.9	781.7	809.3	815.5	801.3	757.7	718.5	647.3	613.4
72.5°	606.3	602.7	631.2	657.1	683.8	680.2	666.0	631.2	597.4	536.9	505.7
75°	486.1	482.6	504.8	527.1	540.4	542.2	532.4	506.6	470.1	422.9	398.9
77.5°	368.6	372.2	381.9	400.6	413.1	418.4	401.5	375.7	352.6	316.1	298.3
80°	262.6	263.5	267.1	280.5	289.4	289.4	281.3	260.9	235.0	209.2	200.3
82.5°	165.6	169.2	169.2	182.5	182.5	175.4	171.8	158.5	145.1	124.6	112.2
85°	90.8	89.0	94.4	95.3	94.4	89.0	83.7	75.7	66.8	52.5	47.2
87.5°	40.1	39.2	39.2	39.2	38.3	34.7	29.4	23.1	16.0	9.8	7.1
90°	31.2	31.2	30.3	28.5	25.8	23.1	18.7	14.2	8.9	3.6	1.8
92.5°	28.5	28.5	27.6	26.7	24.0	21.4	16.9	12.5	8.0	3.6	1.8
95°	24.9	24.0	24.0	22.3	20.5	17.8	15.1	10.7	7.1	2.7	1.8
97.5°	20.5	19.6	19.6	18.7	16.9	14.2	12.5	8.9	6.2	2.7	1.8
100°	15.1	16.0	15.1	14.2	13.4	11.6	9.8	7.1	4.5	1.8	1.8
102.5°	11.6	11.6	10.7	10.7	9.8	8.9	7.1	5.3	3.6	1.8	0.9
105°	8.0	8.0	8.0	7.1	7.1	6.2	5.3	3.6	2.7	1.8	0.9
107.5°	4.5	4.5	4.5	4.5	4.5	4.5	3.6	2.7	1.8	0.9	0.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
110°	2.7	2.7	2.7	2.7	2.7	2.7	1.8	1.8	0.9	0.9	0.9
112.5°	0.9	0.9	1.8	1.8	1.8	1.8	1.8	0.9	0.9	0.9	0.9
115°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
117.5°	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
120°	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
122.5°	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
125°	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
127.5°	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
130°	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
132.5°	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9
135°	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9
137.5°	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9
140°	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9
142.5°	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9
145°	0.9	0.9	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9
147.5°	0.9	0.9	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9
150°	0.9	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9
152.5°	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9
155°	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9
157.5°	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9
160°	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9
162.5°	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9
165°	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9
167.5°	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9
170°	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9
172.5°	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9
175°	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9
177.5°	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9
180°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9



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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1379.1	1379.1	1379.1	1379.1	1379.1	1379.1	1379.1	1379.1	1379.1	1379.1
2.5°	1377.3	1374.7	1376.4	1375.5	1376.4	1374.7	1374.7	1374.7	1375.5	1373.8
4°	1376.4	1374.7	1374.7	1374.7	1374.7	1372.9	1372.9	1372.9	1372.0	1372.9
5°	1374.7	1373.8	1372.9	1372.0	1372.9	1371.1	1370.2	1370.2	1370.2	1371.1
7.5°	1371.1	1368.4	1368.4	1365.7	1366.6	1365.7	1364.9	1365.7	1364.9	1364.9
10°	1364.9	1363.1	1362.2	1360.4	1360.4	1358.6	1357.7	1357.7	1357.7	1356.8
12.5°	1358.6	1356.8	1356.0	1354.2	1353.3	1351.5	1350.6	1351.5	1349.7	1349.7
15°	1351.5	1349.7	1348.8	1348.8	1347.1	1345.3	1344.4	1342.6	1342.6	1342.6
17.5°	1345.3	1343.5	1344.4	1342.6	1341.7	1339.9	1339.9	1336.4	1336.4	1335.5
20°	1339.0	1337.3	1337.3	1336.4	1336.4	1334.6	1331.9	1330.1	1329.2	1329.2
22.5°	1331.0	1328.4	1323.9	1317.7	1314.1	1311.4	1310.5	1307.9	1307.0	1305.2
25°	1318.6	1311.4	1301.6	1291.0	1280.3	1274.9	1273.2	1269.6	1269.6	1269.6
27.5°	1303.4	1290.1	1276.7	1260.7	1244.7	1234.0	1226.9	1223.3	1221.5	1221.5
30°	1283.8	1266.9	1248.2	1227.7	1209.9	1190.4	1177.9	1170.8	1167.2	1168.1
32.5°	1266.0	1244.7	1223.3	1197.5	1173.4	1150.3	1128.9	1118.2	1113.8	1112.0
35°	1248.2	1224.2	1198.4	1170.8	1139.6	1105.8	1077.3	1061.3	1052.4	1053.2
37.5°	1234.9	1206.4	1177.9	1144.1	1108.4	1067.5	1031.0	1005.2	994.5	996.3
40°	1220.6	1188.6	1157.4	1118.2	1076.4	1027.4	980.2	945.5	933.1	930.4
42.5°	1207.3	1169.9	1134.3	1092.4	1039.9	984.7	926.8	885.9	867.2	864.5
45°	1190.4	1148.5	1110.2	1062.1	1004.3	935.7	868.1	814.6	795.1	787.0
47.5°	1168.1	1121.8	1079.1	1023.9	960.7	883.2	798.6	732.7	707.8	701.6
50°	1135.2	1081.7	1038.1	975.8	899.2	813.8	719.4	638.4	605.4	601.0
52.5°	1091.5	1037.2	988.3	917.0	823.5	722.9	616.1	532.4	494.1	491.5
55°	1039.0	980.2	926.8	846.7	737.2	620.6	509.3	403.3	365.9	361.5
57.5°	977.6	917.0	859.2	760.3	633.9	503.9	374.8	273.3	237.7	228.8
60°	909.9	847.6	782.6	662.4	495.0	357.0	227.0	145.1	118.4	109.5
62.5°	844.0	776.4	707.8	545.8	339.2	203.9	103.3	41.8	26.7	25.8
65°	766.6	702.5	632.1	439.8	214.6	91.7	30.3	0.9	0.0	0.0
67.5°	676.6	622.3	560.0	393.5	189.6	80.1	25.8	0.9	0.0	0.0
70°	580.5	537.8	482.6	338.3	162.9	67.7	22.3	0.0	0.0	0.0
72.5°	479.0	442.5	401.5	281.3	135.3	56.1	17.8	0.0	0.0	0.0
75°	375.7	352.6	316.1	222.6	105.1	42.7	13.4	0.0	0.0	0.0
77.5°	278.7	260.0	233.3	163.8	79.2	31.2	9.8	0.0	0.0	0.0
80°	187.9	173.6	158.5	111.3	53.4	20.5	6.2	0.0	0.0	0.0
82.5°	109.5	98.8	89.0	63.2	29.4	11.6	2.7	0.0	0.0	0.0
85°	44.5	41.0	39.2	26.7	11.6	3.6	0.9	0.0	0.0	0.0
87.5°	5.3	4.5	4.5	2.7	0.9	0.0	0.0	0.0	0.0	0.0
90°	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
95°	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0
97.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.0
100°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
102.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
105°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
107.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9



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 CATALOG NUMBER: TT-D3-830-24VDC-CQ-HSS

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
112.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
115°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
117.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
120°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
122.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
125°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
127.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
130°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
132.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
135°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
137.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0
140°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0
142.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0
145°	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0
147.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.9
150°	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
152.5°	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
155°	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
157.5°	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
160°	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
162.5°	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
165°	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
167.5°	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
170°	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
172.5°	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
175°	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
177.5°	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
180°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9

(END OF REPORT)