

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: P821153

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

Issue Date: 12/2/2020



Test Information

Test Method: LM-79-08
Report Number: P821153
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2010-017-5)
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-RW-HSS
Description: TOPTIER LED PARKING GARAGE LUMINAIRE
3000K, 80 CRI LEDS AND RECTANGULAR DISTRIBUTION WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

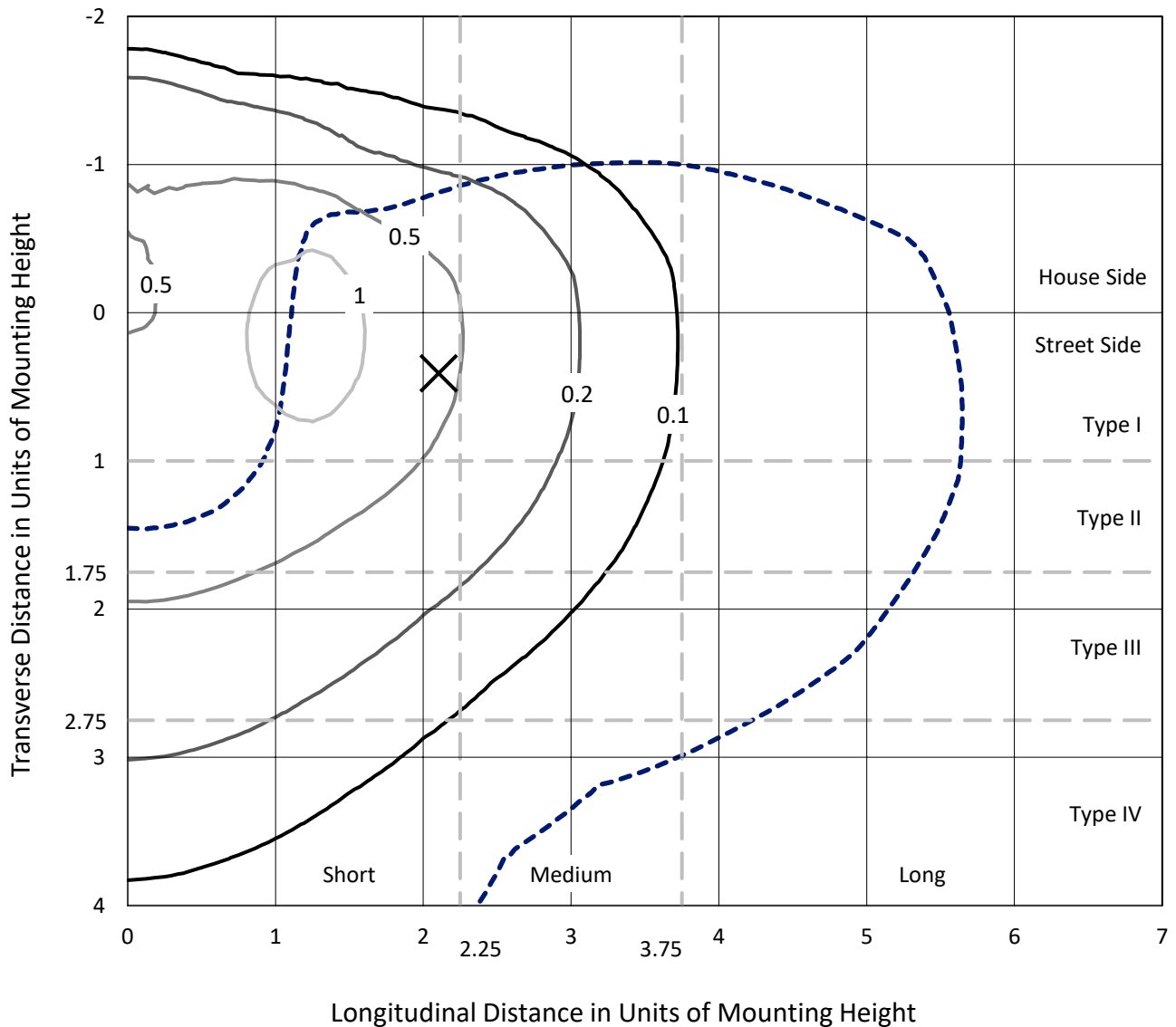
Lumens per Lamp: N/A
Luminaire Lumens: 3573 lumens
Efficiency: N/A
Efficacy: 77.7 lumens/watt
Luminous Opening: Circular (Dia: 1.12' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U2 - G2

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

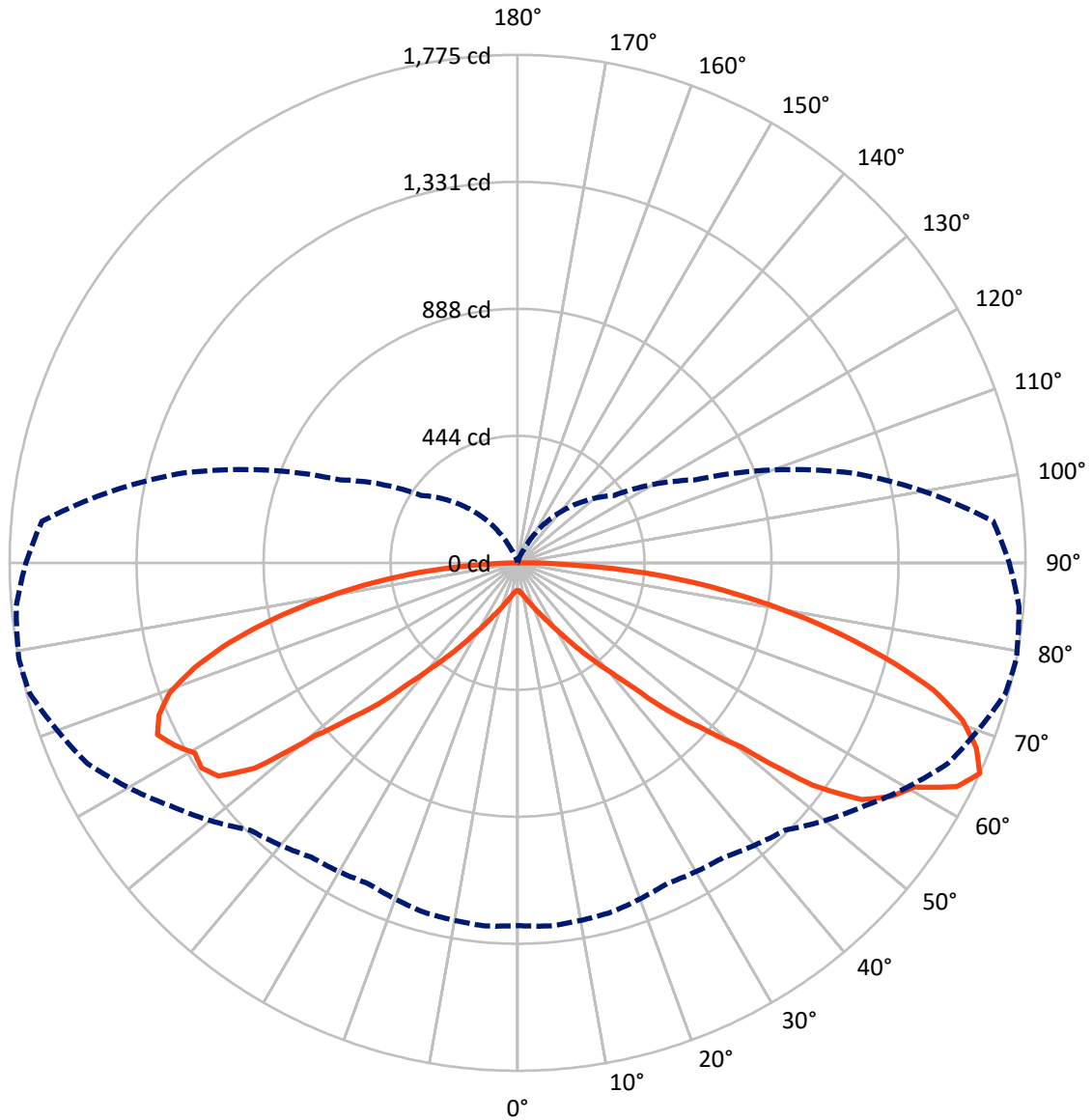
✕ Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 1.3 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 79-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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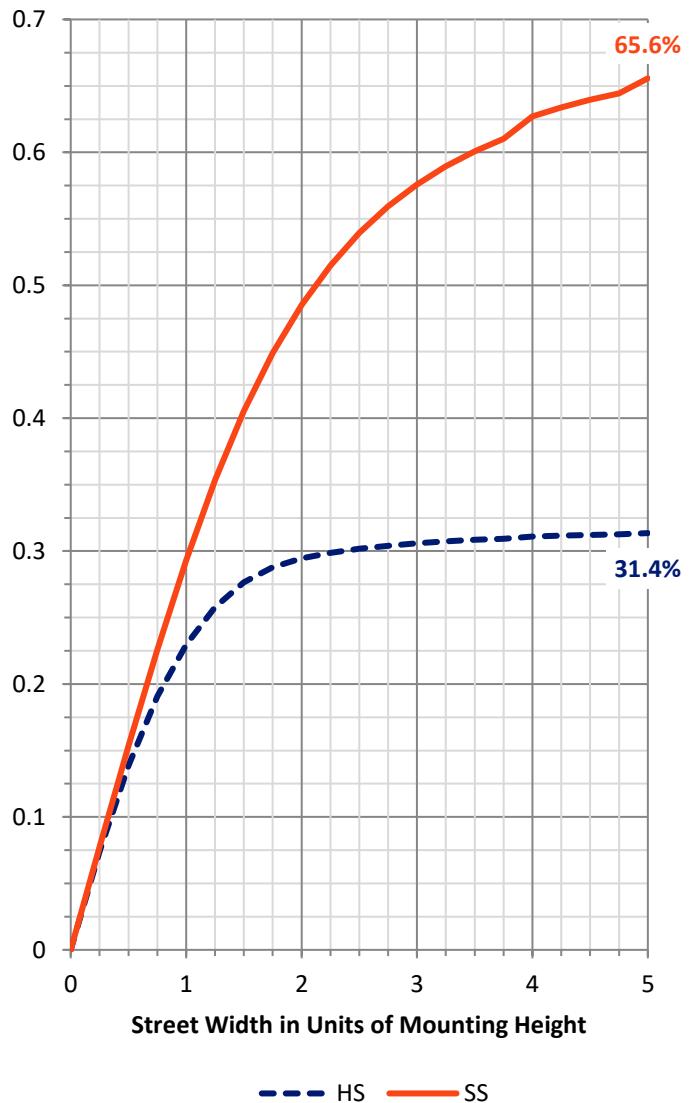
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1128.3	1.4	1129.7
	% Fixture	31.6	0.0	31.6
Street Side	Lumens	2427.5	15.8	2443.3
	% Fixture	67.9	0.4	68.4
Total	Lumens	3555.8	17.2	3573.0
	% Fixture	99.5	0.5	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	10.2	0.3
10°-20°	38.5	1.1
20°-30°	88.8	2.5
30°-40°	190.2	5.3
40°-50°	407.4	11.4
50°-60°	769.3	21.5
60°-70°	956.1	26.8
70°-80°	818.5	22.9
80°-90°	276.9	7.7
90°-100°	12.0	0.3
100°-110°	3.5	0.1
110°-120°	0.8	0.0
120°-130°	0.4	0.0
130°-140°	0.3	0.0
140°-150°	0.2	0.0
150°-160°	0.1	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	3555.8	99.5
0°-180°	3573.0	100.0

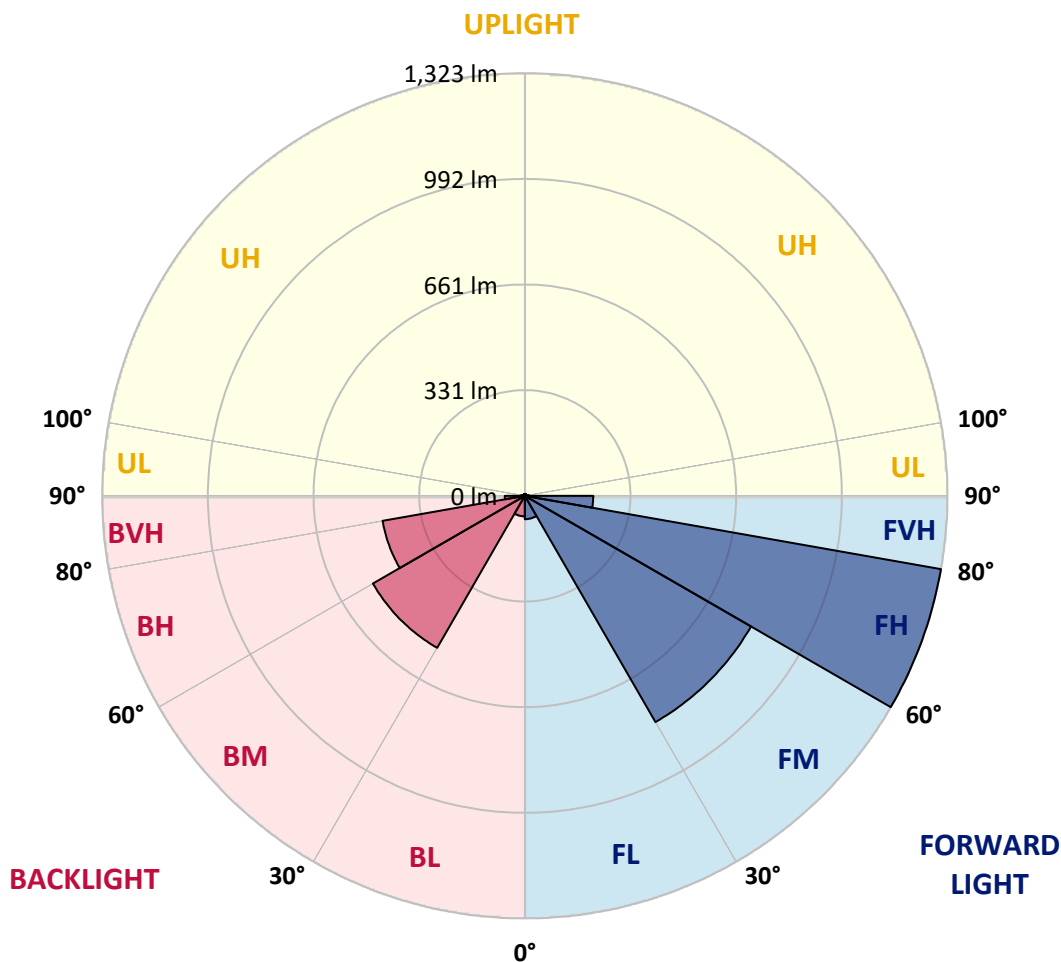


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	73.1	2.0			
FM (30°-60°)	817.7	22.9			
FH (60°-80°)	1322.6	37.0			G1/1800
FVH (80°-90°)	214.2	6.0			G2/225
BL (0°-30°)	64.4	1.8	B0/110		
BM (30°-60°)	549.2	15.4	B1/1000		
BH (60°-80°)	452.0	12.7	B1/500		G1/500
BVH (80°-90°)	62.7	1.8			G1/100
UL (90°-100°)	12.0	0.3		U2/50	
UH (100°-180°)	5.2	0.1		U1/10	

BUG Rating: B1-U2-G2
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
0°	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0
2.5°	102.4	102.4	102.4	101.5	101.5	101.5	100.6	99.7	98.8	98.8	98.8
5°	107.7	107.7	107.7	107.7	106.8	105.9	105.1	104.2	103.3	103.3	102.4
7.5°	114.9	114.0	114.9	114.0	114.0	113.1	112.2	111.3	109.5	109.5	108.6
10°	122.0	122.0	122.0	122.0	122.0	121.1	120.2	119.3	118.4	117.5	116.6
12.5°	130.9	130.9	130.9	130.0	130.9	130.0	129.1	129.1	128.2	126.4	126.4
15°	139.8	139.8	139.8	139.8	140.7	140.7	140.7	139.8	139.8	138.9	138.0
17.5°	150.5	149.6	150.5	150.5	151.4	152.2	153.1	154.0	154.0	153.1	153.1
20°	162.0	161.1	162.0	162.0	163.8	165.6	168.3	170.1	170.9	169.2	169.2
22.5°	174.5	173.6	175.4	175.4	178.1	180.7	185.2	187.0	189.6	188.7	188.7
25°	189.6	188.7	189.6	190.5	194.1	198.5	203.9	208.3	211.0	211.0	211.9
27.5°	206.6	206.6	207.4	208.3	211.9	219.0	227.0	235.0	241.3	240.4	241.3
30°	229.7	229.7	231.5	232.4	236.8	244.8	255.5	266.2	275.1	275.1	276.9
32.5°	255.5	254.6	257.3	258.2	262.6	273.3	288.5	305.4	317.0	317.0	318.7
35°	286.7	285.8	288.5	288.5	293.8	308.9	328.5	351.7	371.3	372.2	374.8
37.5°	325.9	324.1	324.1	326.7	333.0	352.6	379.3	411.3	431.8	433.6	438.0
40°	372.2	371.3	373.0	372.2	380.2	404.2	438.0	475.4	499.5	503.9	509.3
42.5°	429.1	430.9	428.2	428.2	438.0	465.6	505.7	549.3	593.0	598.3	601.0
45°	498.6	502.1	498.6	497.7	506.6	538.6	593.8	670.4	721.2	739.0	744.3
47.5°	582.3	584.1	579.6	577.8	587.6	628.6	699.8	785.3	844.9	858.3	872.5
50°	675.8	673.1	669.5	666.9	685.6	736.3	819.1	907.2	1009.6	1011.4	1016.8
52.5°	771.9	763.9	764.8	763.9	789.7	844.9	955.3	1104.9	1260.7	1292.8	1296.3
55°	868.1	858.3	857.4	866.3	902.8	982.0	1120.9	1315.0	1441.4	1461.0	1458.4
57.5°	964.2	959.8	958.0	966.0	1019.4	1113.8	1270.5	1434.3	1542.0	1540.3	1521.6
60°	1063.9	1067.5	1061.3	1076.4	1131.6	1226.0	1339.9	1499.3	1599.0	1591.0	1572.3
62.5°	1166.3	1175.2	1169.0	1170.8	1206.4	1275.8	1388.0	1573.2	1711.2	1722.8	1701.4
65°	1267.8	1274.1	1264.3	1236.7	1256.2	1321.2	1481.5	1659.6	1764.6	1775.3	1759.3
67.5°	1353.3	1359.5	1325.7	1282.1	1284.7	1331.9	1472.6	1642.7	1736.1	1729.0	1703.2
70°	1426.3	1414.7	1359.5	1284.7	1253.6	1275.8	1408.5	1559.0	1654.2	1650.7	1620.4
72.5°	1450.3	1435.2	1341.7	1226.0	1164.5	1172.6	1301.7	1436.1	1513.6	1519.8	1483.3
75°	1412.1	1386.2	1258.0	1112.9	1033.7	1039.0	1149.4	1273.2	1335.5	1328.4	1299.9
77.5°	1274.1	1248.2	1109.3	954.4	877.0	885.0	972.2	1069.3	1120.9	1118.2	1098.7
80°	1057.7	1034.6	912.6	768.4	698.0	702.5	769.2	845.8	885.9	894.8	884.1
82.5°	781.7	765.7	679.3	562.7	505.7	504.8	555.6	614.3	653.5	672.2	665.1
85°	483.4	475.4	427.4	351.7	311.6	310.7	341.0	384.6	420.2	445.2	429.1
87.5°	192.3	189.6	175.4	141.6	123.8	117.5	110.4	138.0	140.7	166.5	165.6
90°	47.2	46.3	45.4	42.7	38.3	32.9	26.7	19.6	12.5	9.8	5.3
92.5°	41.8	41.8	41.0	38.3	34.7	29.4	24.0	17.8	11.6	8.9	4.5
95°	33.8	33.8	32.9	31.2	27.6	24.0	18.7	14.2	8.9	7.1	3.6
97.5°	25.8	24.9	24.9	23.1	21.4	17.8	14.2	10.7	7.1	5.3	2.7
100°	18.7	18.7	17.8	16.9	15.1	13.4	10.7	8.0	4.5	3.6	1.8
102.5°	13.4	12.5	12.5	12.5	10.7	8.9	7.1	5.3	3.6	2.7	0.9
105°	8.9	8.0	8.0	8.0	7.1	6.2	4.5	3.6	1.8	1.8	0.9
107.5°	5.3	5.3	5.3	5.3	4.5	3.6	2.7	1.8	0.9	0.9	0.9
110°	2.7	2.7	2.7	3.6	2.7	2.7	1.8	0.9	0.9	0.9	0.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
112.5°	1.8	1.8	1.8	1.8	1.8	1.8	0.9	0.9	0.9	0.9	0.9
115°	0.9	0.9	0.9	1.8	1.8	0.9	0.9	0.0	0.0	0.9	0.9
117.5°	0.0	0.0	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.9
120°	0.0	0.0	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.9
122.5°	0.0	0.0	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.9
125°	0.0	0.0	0.0	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.9
127.5°	0.0	0.0	0.0	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.9
130°	0.0	0.0	0.0	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.9
132.5°	0.0	0.0	0.0	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.9
135°	0.0	0.0	0.0	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.9	0.9	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.9	0.0	0.9	0.0	0.0	0.0	0.0	0.0
180°	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°	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0
2.5°	97.9	97.9	97.9	97.0	97.0	97.0	96.2	96.2	95.3	95.3	95.3
5°	101.5	101.5	100.6	100.6	99.7	98.8	98.8	97.9	97.9	97.0	97.0
7.5°	107.7	107.7	106.8	105.9	104.2	103.3	102.4	101.5	101.5	100.6	100.6
10°	115.7	115.7	114.0	112.2	110.4	108.6	107.7	105.9	105.1	105.1	105.1
12.5°	125.5	124.6	122.9	120.2	118.4	115.7	114.0	112.2	110.4	110.4	110.4
15°	137.1	137.1	133.5	130.9	127.3	123.8	121.1	118.4	116.6	115.7	115.7
17.5°	151.4	151.4	146.9	142.5	138.0	133.5	130.0	126.4	124.6	123.8	123.8
20°	167.4	167.4	162.9	157.6	151.4	145.1	139.8	135.3	132.7	131.8	131.8
22.5°	187.0	187.0	180.7	173.6	165.6	156.7	149.6	144.2	141.6	139.8	139.8
25°	209.2	207.4	201.2	192.3	180.7	170.1	160.3	154.9	151.4	148.7	149.6
27.5°	239.5	236.8	228.8	213.7	199.4	185.2	173.6	166.5	162.0	160.3	161.1
30°	274.2	271.5	260.0	243.1	221.7	203.0	188.7	180.7	176.3	173.6	174.5
32.5°	316.1	312.5	298.3	275.1	250.2	223.5	205.7	195.9	191.4	188.7	187.9
35°	371.3	366.8	349.0	317.0	282.2	250.2	225.3	212.8	208.3	205.7	206.6
37.5°	433.6	427.4	403.3	364.1	320.5	279.6	251.1	235.0	229.7	225.3	225.3
40°	504.8	497.7	466.5	414.9	362.4	311.6	275.1	257.3	251.1	251.1	251.1
42.5°	593.8	586.7	551.1	475.4	406.0	346.3	302.7	282.2	276.0	277.8	277.8
45°	731.8	722.1	665.1	565.4	463.0	381.9	331.2	308.1	303.6	308.1	308.1
47.5°	858.3	845.8	762.1	649.0	519.1	417.6	359.7	333.0	331.2	341.0	341.0
50°	999.8	983.8	895.7	716.7	564.5	456.7	385.5	353.5	354.3	368.6	373.0
52.5°	1274.1	1257.1	1104.9	839.6	613.4	471.0	396.2	357.9	357.9	373.9	380.2
55°	1437.0	1402.3	1203.7	919.7	633.9	487.9	391.7	340.1	338.3	356.1	361.5
57.5°	1490.4	1454.8	1224.2	896.6	620.6	466.5	365.9	292.0	288.5	311.6	309.8
60°	1534.0	1486.8	1191.3	819.1	544.9	421.1	316.1	217.2	202.1	222.6	221.7
62.5°	1656.9	1606.1	1193.0	728.3	455.8	351.7	237.7	122.0	90.8	106.8	99.7
65°	1718.3	1668.5	1211.7	685.6	410.4	291.1	170.1	49.9	3.6	3.6	1.8
67.5°	1665.8	1621.3	1187.7	674.9	404.2	289.4	172.7	49.0	0.0	0.0	0.0
70°	1589.2	1546.5	1132.5	637.5	383.7	278.7	169.2	49.0	0.0	0.0	0.0
72.5°	1454.8	1411.2	1037.2	584.1	352.6	255.5	156.7	46.3	0.0	0.0	0.0
75°	1277.6	1244.7	916.1	514.6	310.7	225.3	138.9	41.0	0.0	0.0	0.0
77.5°	1081.7	1042.6	768.4	428.2	260.0	187.0	117.5	33.8	0.0	0.0	0.0
80°	868.1	839.6	605.4	335.7	201.2	146.0	91.7	25.8	0.0	0.0	0.0
82.5°	645.5	621.4	447.8	240.4	143.3	101.5	63.2	16.9	0.0	0.0	0.0
85°	423.8	417.6	287.6	146.0	85.5	56.1	33.8	8.0	0.0	0.0	0.0
87.5°	153.1	158.5	105.1	41.8	23.1	9.8	4.5	0.9	0.0	0.0	0.0
90°	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
92.5°	0.9	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	0.0
97.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
100°	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
102.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
105°	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
107.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
110°	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0



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

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
115°	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
117.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
120°	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
122.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
125°	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
127.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
130°	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
132.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
135°	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.9	0.9	0.9	0.0	0.0	0.0	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	0.0
147.5°	0.0	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
180°	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)