

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: P821514

Luminaire Tested: **TT-D1-740-12VDC-CQ-HSS**

Issue Date: 12/2/2020



Test Information

Test Method: LM-79-08
Report Number: P821514
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-D1-740-12VDC-CQ-HSS
Description: TOPTIER LED PARKING GARAGE LUMINAIRE
4000K, 70 CRI LEDS AND CONCENTRATED DISTRIBUTION WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

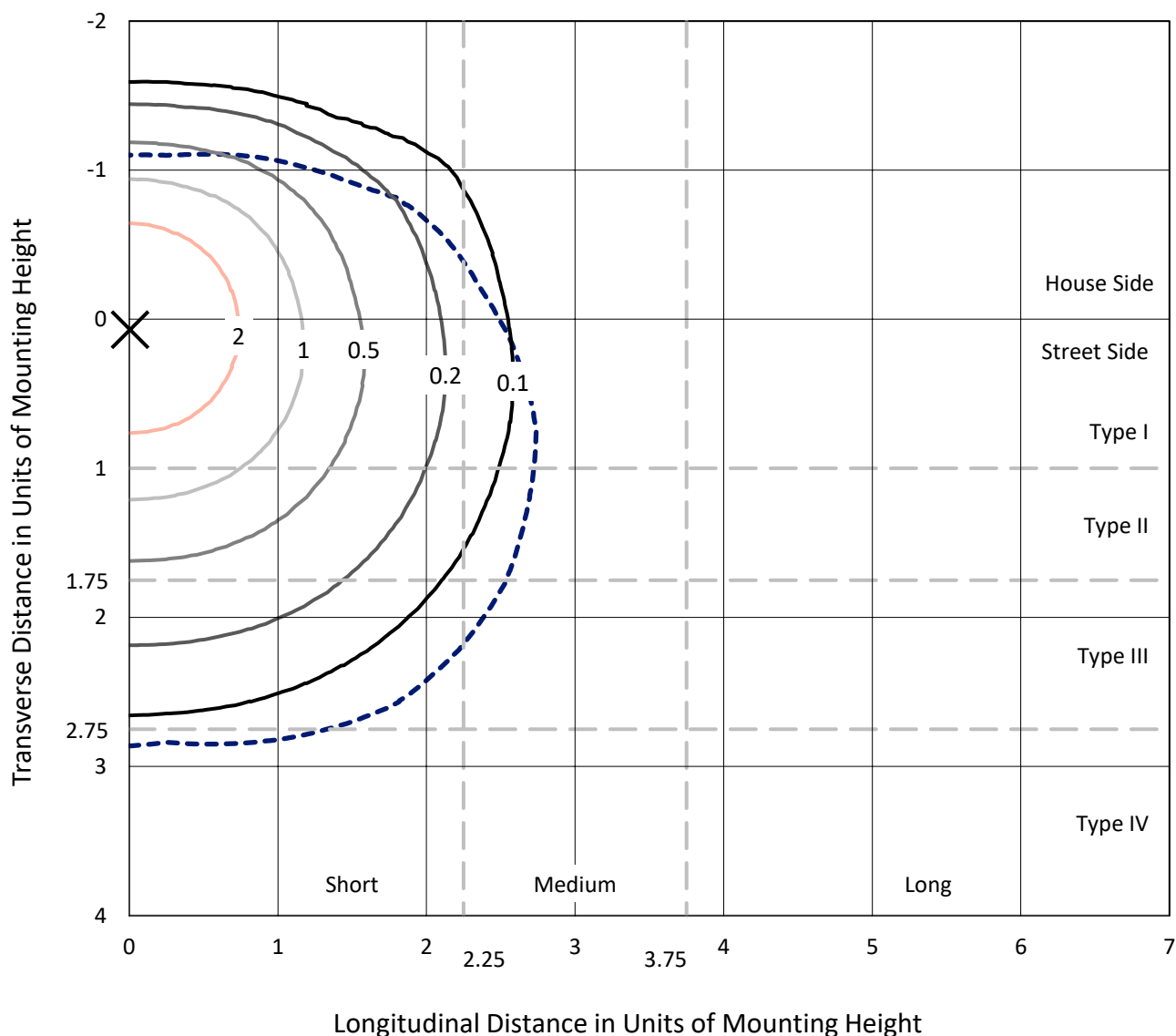
Lumens per Lamp: N/A
Luminaire Lumens: 3239.9 lumens
Efficiency: N/A
Efficacy: 115.7 lumens/watt
Luminous Opening: Circular (Dia: 1.12' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U1 - G1

Input Watts (W): 28
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

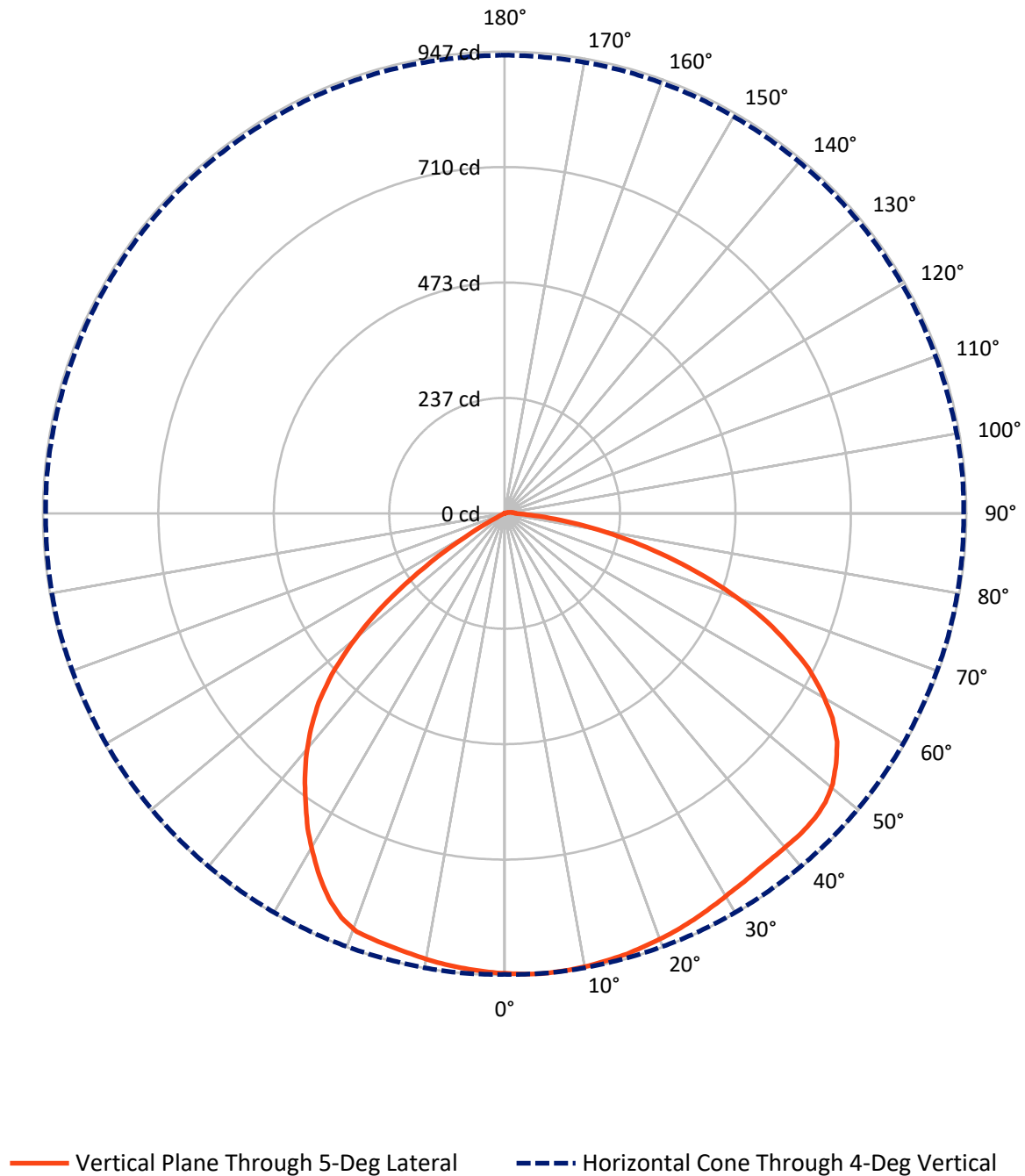
✕ Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 4.2 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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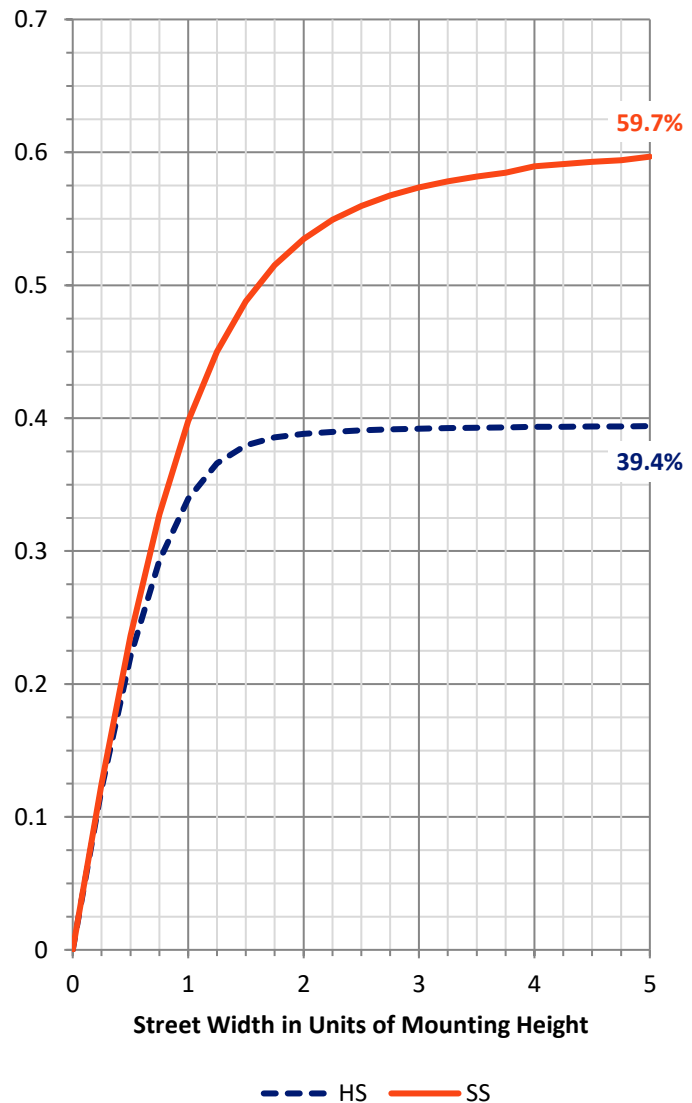
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1284.0	1.6	1285.6
	% Fixture	39.6	0.1	39.7
Street Side	Lumens	1945.3	9.0	1954.3
	% Fixture	60.0	0.3	60.3
Total	Lumens	3229.3	10.6	3239.9
	% Fixture	99.7	0.3	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.7	2.8
10°-20°	262.6	8.1
20°-30°	413.8	12.8
30°-40°	526.7	16.3
40°-50°	608.3	18.8
50°-60°	595.6	18.4
60°-70°	443.6	13.7
70°-80°	240.3	7.4
80°-90°	48.7	1.5
90°-100°	6.2	0.2
100°-110°	2.4	0.1
110°-120°	0.7	0.0
120°-130°	0.5	0.0
130°-140°	0.4	0.0
140°-150°	0.3	0.0
150°-160°	0.2	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-90°	3229.3	99.7
0°-180°	3239.9	100.0

Coefficient of Utilization



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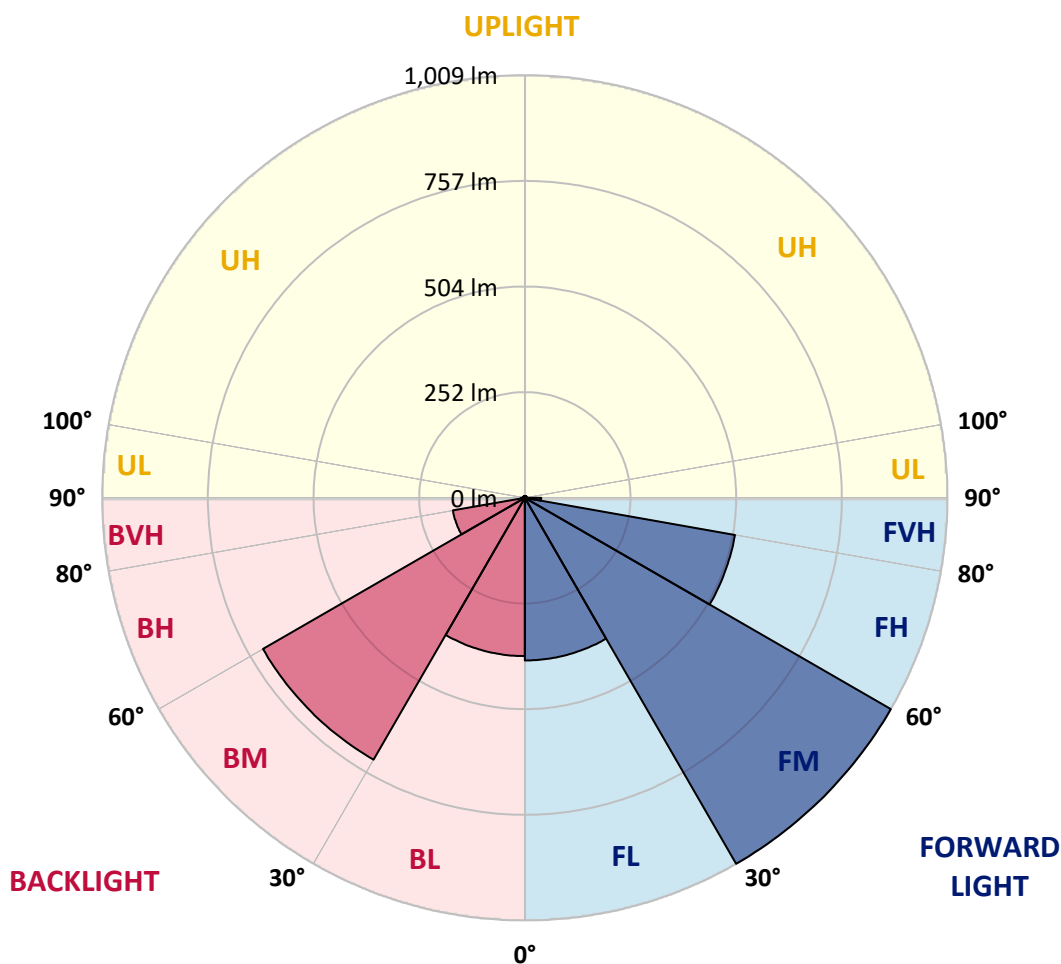
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	388.2	12.0			
FM	(30°-60°)	1008.8	31.1			
FH	(60°-80°)	509.4	15.7			G0/660
FVH	(80°-90°)	38.9	1.2			G1/100
BL	(0°-30°)	377.9	11.7	B1/500		
BM	(30°-60°)	721.8	22.3	B1/1000		
BH	(60°-80°)	174.5	5.4	B1/500		G1/500
BVH	(80°-90°)	9.8	0.3			G0/10
UL	(90°-100°)	6.2	0.2		U1/10	
UH	(100°-180°)	4.5	0.1		U1/10	

BUG Rating: B1-U1-G1

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	943.7	943.7	943.7	943.7	943.7	943.7	943.7	943.7	943.7	943.7	943.7
2.5°	944.9	946.1	945.5	945.5	944.3	944.9	944.3	944.3	943.7	943.1	943.1
4°	945.5	946.7	945.5	945.5	944.9	944.9	944.3	943.1	943.7	941.8	941.2
5°	946.1	946.7	946.1	946.1	944.9	944.3	943.1	943.1	942.5	941.2	941.2
7.5°	944.9	945.5	945.5	944.9	943.7	942.5	941.8	941.2	940.6	938.8	938.8
10°	942.5	943.7	942.5	942.5	941.8	940.6	938.8	938.2	936.4	935.1	934.5
12.5°	940.0	940.6	940.0	940.0	938.8	937.0	936.4	935.1	932.7	930.9	930.9
15°	936.4	937.6	937.0	936.4	935.8	933.9	932.1	930.3	928.4	926.6	926.6
17.5°	932.1	932.7	933.3	932.7	931.5	930.3	928.4	926.0	924.2	922.4	921.7
20°	927.2	928.4	928.4	928.4	927.2	926.0	923.6	921.1	919.9	917.5	916.9
22.5°	922.4	923.6	923.0	923.6	923.0	921.1	918.7	916.3	913.8	912.0	910.8
25°	917.5	917.5	917.5	917.5	917.5	915.0	912.6	909.6	907.1	904.1	904.1
27.5°	911.4	911.4	912.0	912.0	911.4	909.6	906.5	902.9	899.2	896.2	894.9
30°	905.9	905.3	906.5	907.7	907.1	905.3	901.6	897.4	891.9	887.6	884.0
32.5°	899.2	901.0	902.2	904.7	905.3	902.9	898.6	893.1	887.6	879.7	873.0
35°	896.8	896.8	899.8	903.5	904.7	903.5	897.4	891.3	883.4	871.8	863.9
37.5°	894.3	894.9	899.8	905.3	907.1	907.1	900.4	892.5	881.5	865.1	855.3
40°	893.1	894.3	900.4	908.3	913.2	912.6	904.7	894.9	881.5	860.2	848.0
42.5°	891.9	894.3	901.0	912.0	919.3	918.7	910.2	897.4	880.3	854.1	840.1
45°	890.1	891.9	901.0	915.0	924.8	926.6	916.9	900.4	880.3	848.6	830.4
47.5°	884.6	885.2	897.4	913.8	928.4	930.9	921.1	901.6	877.9	839.5	818.2
50°	870.0	871.8	885.8	907.7	924.8	928.4	919.9	898.6	871.8	824.3	798.7
52.5°	851.1	851.1	868.1	892.5	913.2	919.3	911.4	887.6	856.6	801.7	772.5
55°	823.0	827.3	845.0	870.6	893.1	901.6	890.7	867.5	831.6	773.1	740.8
57.5°	791.4	792.6	810.9	841.3	864.5	870.0	860.8	833.4	798.7	739.0	700.6
60°	745.7	748.1	771.3	798.1	823.0	830.4	818.8	791.4	754.8	695.1	656.1
62.5°	695.1	698.8	719.5	746.9	770.7	782.2	768.2	739.6	703.6	642.7	608.6
65°	634.2	635.4	658.0	689.0	712.8	717.0	704.9	676.8	640.9	582.4	551.9
67.5°	564.1	570.2	592.2	615.3	636.0	640.9	632.4	600.1	571.4	519.7	489.8
70°	496.5	493.5	511.7	534.9	553.8	558.0	548.3	518.4	491.6	442.9	419.7
72.5°	414.9	412.4	431.9	449.6	467.9	465.4	455.7	431.9	408.8	367.4	346.0
75°	332.6	330.2	345.4	360.7	369.8	371.0	364.3	346.6	321.7	289.4	272.9
77.5°	252.2	254.7	261.4	274.1	282.7	286.3	274.8	257.1	241.2	216.3	204.1
80°	179.7	180.3	182.8	191.9	198.0	198.0	192.5	178.5	160.8	143.2	137.1
82.5°	113.3	115.8	115.8	124.9	124.9	120.0	117.6	108.4	99.3	85.3	76.8
85°	62.1	60.9	64.6	65.2	64.6	60.9	57.3	51.8	45.7	35.9	32.3
87.5°	27.4	26.8	26.8	26.8	26.2	23.8	20.1	15.8	11.0	6.7	4.9
90°	21.3	21.3	20.7	19.5	17.7	15.8	12.8	9.7	6.1	2.4	1.2
92.5°	19.5	19.5	18.9	18.3	16.4	14.6	11.6	8.5	5.5	2.4	1.2
95°	17.1	16.4	16.4	15.2	14.0	12.2	10.4	7.3	4.9	1.8	1.2
97.5°	14.0	13.4	13.4	12.8	11.6	9.7	8.5	6.1	4.3	1.8	1.2
100°	10.4	11.0	10.4	9.7	9.1	7.9	6.7	4.9	3.0	1.2	1.2
102.5°	7.9	7.9	7.3	7.3	6.7	6.1	4.9	3.7	2.4	1.2	0.6
105°	5.5	5.5	5.5	4.9	4.9	4.3	3.7	2.4	1.8	1.2	0.6
107.5°	3.0	3.0	3.0	3.0	3.0	3.0	2.4	1.8	1.2	0.6	0.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
110°	1.8	1.8	1.8	1.8	1.8	1.8	1.2	1.2	0.6	0.6	0.6
112.5°	0.6	0.6	1.2	1.2	1.2	1.2	1.2	0.6	0.6	0.6	0.6
115°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
117.5°	0.0	0.0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
120°	0.0	0.0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
122.5°	0.0	0.0	0.0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
125°	0.0	0.0	0.0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
127.5°	0.0	0.0	0.0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
130°	0.0	0.0	0.0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
132.5°	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6	0.6	0.6	0.6
135°	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6	0.6	0.6	0.6
137.5°	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6	0.6	0.6	0.6
140°	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6	0.6	0.6	0.6
142.5°	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6	0.6	0.6
145°	0.6	0.6	0.0	0.0	0.0	0.6	0.6	0.6	0.6	0.6	0.6
147.5°	0.6	0.6	0.0	0.0	0.0	0.6	0.6	0.6	0.6	0.6	0.6
150°	0.6	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6	0.6	0.6
152.5°	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6	0.6	0.6
155°	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6	0.6	0.6
157.5°	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6	0.6	0.6
160°	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6	0.6	0.6
162.5°	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6	0.6	0.6
165°	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6	0.6	0.6
167.5°	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6	0.6	0.6
170°	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6	0.6	0.6
172.5°	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6	0.6	0.6	0.6
175°	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6	0.6	0.6	0.6
177.5°	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6	0.6	0.6	0.6
180°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6



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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	943.7	943.7	943.7	943.7	943.7	943.7	943.7	943.7	943.7	943.7
2.5°	942.5	940.6	941.8	941.2	941.8	940.6	940.6	940.6	941.2	940.0
4°	941.8	940.6	940.6	940.6	940.6	939.4	939.4	939.4	938.8	939.4
5°	940.6	940.0	939.4	938.8	939.4	938.2	937.6	937.6	937.6	938.2
7.5°	938.2	936.4	936.4	934.5	935.1	934.5	933.9	934.5	933.9	933.9
10°	933.9	932.7	932.1	930.9	930.9	929.7	929.1	929.1	929.1	928.4
12.5°	929.7	928.4	927.8	926.6	926.0	924.8	924.2	924.8	923.6	923.6
15°	924.8	923.6	923.0	923.0	921.7	920.5	919.9	918.7	918.7	918.7
17.5°	920.5	919.3	919.9	918.7	918.1	916.9	916.9	914.4	914.4	913.8
20°	916.3	915.0	915.0	914.4	914.4	913.2	911.4	910.2	909.6	909.6
22.5°	910.8	908.9	905.9	901.6	899.2	897.4	896.8	894.9	894.3	893.1
25°	902.2	897.4	890.7	883.4	876.1	872.4	871.2	868.7	868.7	868.7
27.5°	891.9	882.8	873.6	862.6	851.7	844.4	839.5	837.1	835.8	835.8
30°	878.5	866.9	854.1	840.1	827.9	814.5	806.0	801.1	798.7	799.3
32.5°	866.3	851.7	837.1	819.4	802.9	787.1	772.5	765.2	762.1	760.9
35°	854.1	837.7	820.0	801.1	779.8	756.6	737.1	726.2	720.1	720.7
37.5°	845.0	825.5	806.0	782.8	758.5	730.4	705.5	687.8	680.5	681.7
40°	835.2	813.3	792.0	765.2	736.5	703.0	670.7	647.0	638.5	636.6
42.5°	826.1	800.5	776.1	747.5	711.6	673.8	634.2	606.2	593.4	591.5
45°	814.5	785.9	759.7	726.8	687.2	640.3	594.0	557.4	544.0	538.5
47.5°	799.3	767.6	738.4	700.6	657.3	604.3	546.5	501.4	484.3	480.1
50°	776.7	740.2	710.3	667.7	615.3	556.8	492.2	436.8	414.3	411.2
52.5°	746.9	709.7	676.2	627.5	563.5	494.7	421.6	364.3	338.1	336.3
55°	711.0	670.7	634.2	579.4	504.4	424.6	348.5	276.0	250.4	247.3
57.5°	668.9	627.5	587.9	520.3	433.8	344.8	256.5	187.0	162.7	156.6
60°	622.6	580.0	535.5	453.3	338.7	244.3	155.3	99.3	81.0	74.9
62.5°	577.5	531.2	484.3	373.4	232.1	139.5	70.7	28.6	18.3	17.7
65°	524.5	480.7	432.5	301.0	146.8	62.7	20.7	0.6	0.0	0.0
67.5°	463.0	425.8	383.2	269.3	129.8	54.8	17.7	0.6	0.0	0.0
70°	397.2	368.0	330.2	231.5	111.5	46.3	15.2	0.0	0.0	0.0
72.5°	327.8	302.8	274.8	192.5	92.6	38.4	12.2	0.0	0.0	0.0
75°	257.1	241.2	216.3	152.3	71.9	29.2	9.1	0.0	0.0	0.0
77.5°	190.7	177.9	159.6	112.1	54.2	21.3	6.7	0.0	0.0	0.0
80°	128.5	118.8	108.4	76.2	36.6	14.0	4.3	0.0	0.0	0.0
82.5°	74.9	67.6	60.9	43.3	20.1	7.9	1.8	0.0	0.0	0.0
85°	30.5	28.0	26.8	18.3	7.9	2.4	0.6	0.0	0.0	0.0
87.5°	3.7	3.0	3.0	1.8	0.6	0.0	0.0	0.0	0.0	0.0
90°	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0
95°	0.6	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0
97.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.0
100°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
102.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
105°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
107.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6



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 CATALOG NUMBER: TT-D1-740-12VDC-CQ-HSS

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
112.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
115°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
117.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
120°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
122.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
125°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
127.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
130°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
132.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
135°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
137.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.0	0.0
140°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.0	0.0
142.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0
145°	0.6	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0
147.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.6
150°	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0
152.5°	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0
155°	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0
157.5°	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0
160°	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0
162.5°	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0
165°	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0
167.5°	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0
170°	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0
172.5°	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0
175°	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0
177.5°	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0
180°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6

(END OF REPORT)