

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: P832838

Luminaire Tested: **TTN-D0-740-U-DL-UPL2**

Issue Date: 5/15/2024

Test Information

Test Method: LM-79-08
Report Number: P832838
REPORT IS FROM IESNA LM-79-08 TEST DATA - UPLIGHT (G3-2308-121-4) AND
Test Lab: INNOVATION CENTER
Issue Date: 5/15/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: TTN-D0-740-U-DL-UPL2
Description: TOPTIER NANO LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
4000K, 70 CRI LEDS AND DRIVE LANE DISTRIBUTION
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1737.6 lumens
Efficiency: N/A
Efficacy: 114.3 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 0.71' x H: 0.1')
IES Classification: Type IV - Short
BUG Rating: B0 - U4 - G1

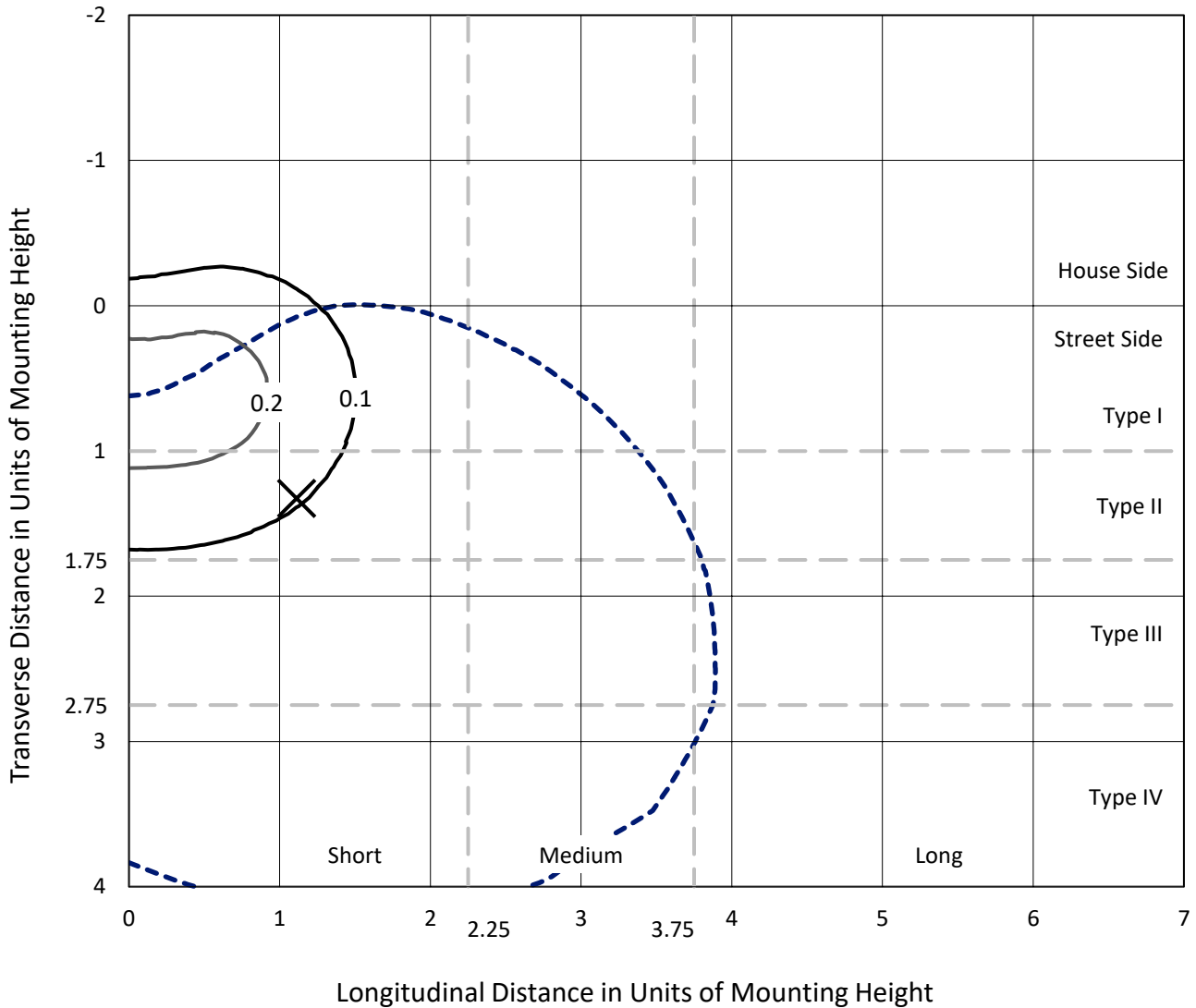
Input Watts (W): 15.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P832838
 CATALOG NUMBER: TTN-D0-740-U-DL-UPL2

Iso-Footcandle Lines of Horizontal Illumination

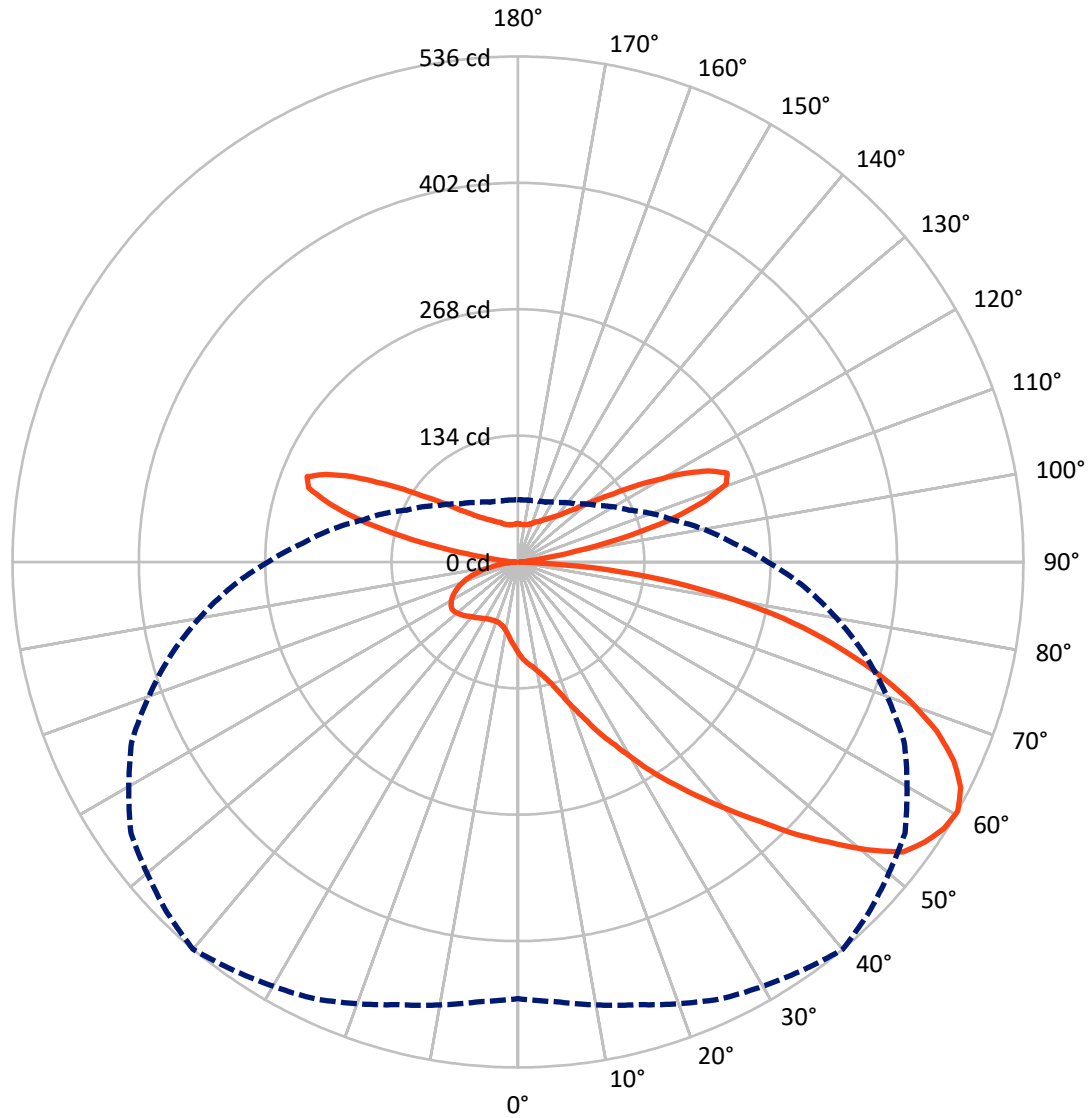
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.3 fc
 Type IV - Short - N/A

REPORT NUMBER: P832838
CATALOG NUMBER: TTN-D0-740-U-DL-UPL2

Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 60-Deg Vertical

REPORT NUMBER: P832838
 CATALOG NUMBER: TTN-D0-740-U-DL-UPL2

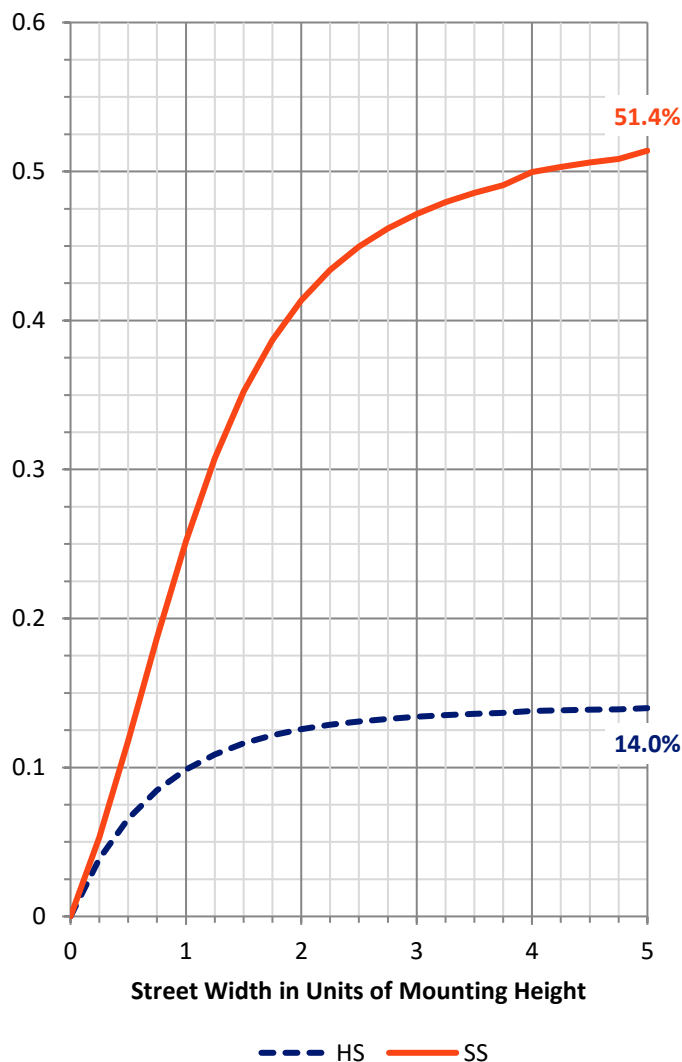
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	245.7	292.5	538.1
	% Fixture	14.1	16.8	31.0
Street Side	Lumens	907.1	292.4	1199.5
	% Fixture	52.2	16.8	69.0
Total	Lumens	1152.7	584.9	1737.6
	% Fixture	66.3	33.7	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	9.1	0.5
10°-20°	29.2	1.7
20°-30°	61.7	3.5
30°-40°	112.7	6.5
40°-50°	183.2	10.5
50°-60°	254.6	14.7
60°-70°	264.0	15.2
70°-80°	189.2	10.9
80°-90°	49.0	2.8
90°-100°	13.1	0.8
100°-110°	132.7	7.6
110°-120°	194.0	11.2
120°-130°	112.6	6.5
130°-140°	59.7	3.4
140°-150°	35.4	2.0
150°-160°	21.8	1.3
160°-170°	11.9	0.7
170°-180°	3.9	0.2
0°-90°	1152.7	66.3
0°-180°	1737.6	100.0

Coefficient of Utilization



REPORT NUMBER: P832838

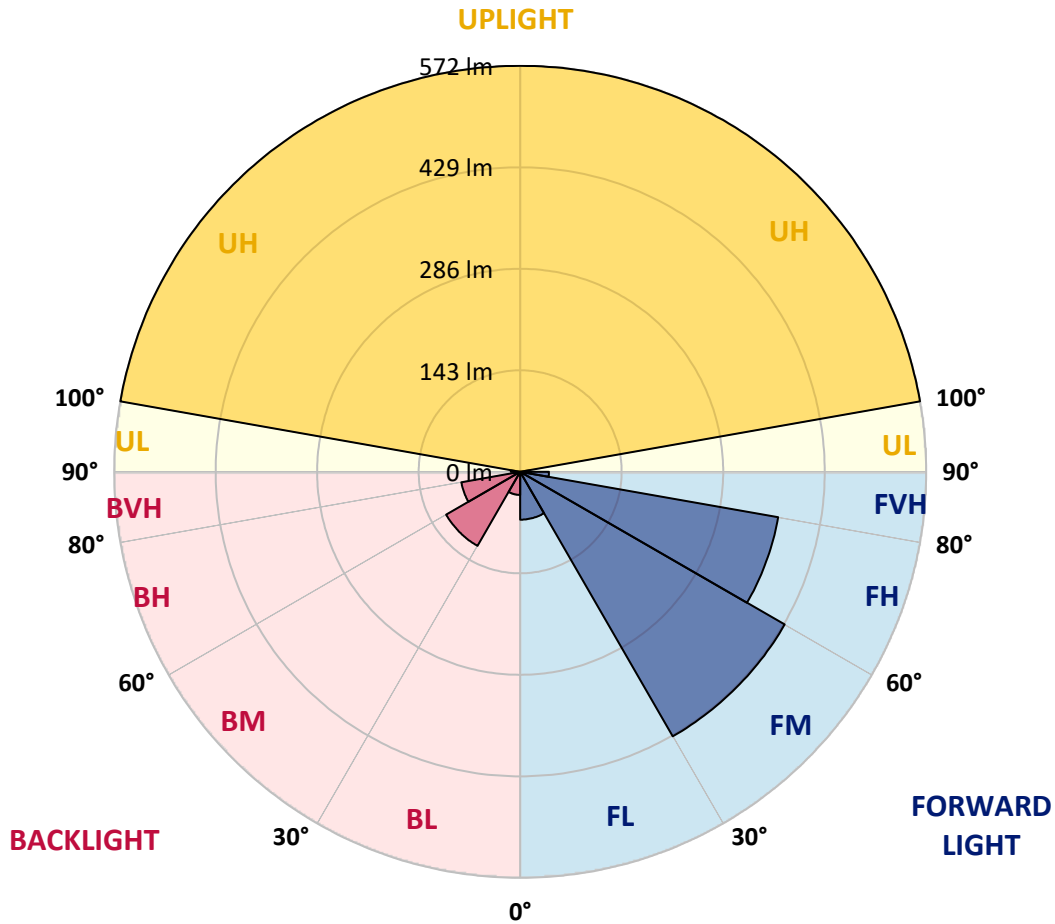
CATALOG NUMBER: TTN-D0-740-U-DL-UPL2

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	67.4	3.9			
FM (30°-60°)	430.2	24.8			
FH (60°-80°)	368.9	21.2			G0/660
FVH (80°-90°)	40.6	2.3			G1/100
BL (0°-30°)	32.6	1.9	B0/110		
BM (30°-60°)	120.4	6.9	B0/220		
BH (60°-80°)	84.2	4.8	B0/110		G0/110
BVH (80°-90°)	8.4	0.5			G0/10
UL (90°-100°)	13.1	0.8		U2/50	
UH (100°-180°)	571.8	32.9		U4/1000	

BUG Rating: B0-U4-G1

Type IV Short





REPORT NUMBER: P832838
 CATALOG NUMBER: TTN-D0-740-U-DL-UPL2

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	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°	104.0	104.0	104.0	104.0	103.0	103.0	102.0	101.0	100.0	99.0	97.0
5°	113.0	113.0	112.0	111.0	109.0	108.0	107.0	105.0	103.0	101.0	98.0
7.5°	117.0	117.0	117.0	116.0	113.0	112.0	110.0	107.0	104.0	101.0	97.0
10°	124.0	124.0	123.0	122.0	119.0	118.0	116.0	112.0	107.0	102.0	97.0
12.5°	133.0	132.0	131.0	130.0	127.0	125.0	122.0	118.0	112.0	106.0	100.0
15°	144.0	142.0	142.0	140.0	137.0	134.0	132.0	126.0	120.0	112.0	104.0
17.5°	156.0	155.0	154.0	152.0	149.0	147.0	144.0	137.0	129.0	119.0	110.0
20°	171.0	169.0	170.0	167.0	164.0	163.0	158.0	150.0	140.0	129.0	118.0
22.5°	189.0	187.0	187.0	184.0	182.0	180.0	175.0	166.0	153.0	141.0	127.0
25°	209.1	207.1	207.1	205.1	203.0	201.0	195.0	185.0	170.0	155.0	139.0
27.5°	231.1	229.1	229.1	228.1	223.1	220.1	215.1	204.1	189.0	170.0	151.0
30°	254.1	252.1	254.1	252.1	249.1	243.1	237.1	225.1	208.1	187.0	164.0
32.5°	272.1	272.1	273.1	275.1	273.1	268.1	261.1	251.1	228.1	202.0	176.0
35°	293.1	293.1	295.1	298.1	297.1	292.1	285.1	274.1	250.1	219.1	189.0
37.5°	316.1	316.1	318.1	323.1	321.1	318.1	313.1	299.1	272.1	236.1	203.0
40°	341.1	340.1	342.1	349.1	350.1	346.1	340.1	326.1	295.1	258.1	218.1
42.5°	366.1	365.1	369.1	376.1	377.1	376.1	370.1	354.1	319.1	280.1	233.1
45°	391.1	391.1	397.1	408.1	413.1	411.1	406.1	386.1	349.1	303.1	253.1
47.5°	417.1	417.1	425.1	439.1	445.1	444.1	442.1	418.1	378.1	327.1	270.1
50°	437.1	437.1	450.1	466.1	476.1	480.1	470.1	448.1	403.1	348.1	284.1
52.5°	457.1	457.1	470.1	495.1	505.1	511.1	498.1	475.1	431.1	367.1	297.1
55°	467.1	469.1	487.1	511.1	527.1	524.1	529.1	498.1	449.1	381.1	305.1
57.5°	468.1	471.1	491.1	516.1	534.1	533.1	534.1	506.1	456.1	384.1	306.1
60°	463.1	468.1	486.1	511.1	528.1	536.1	526.1	501.1	452.1	381.1	305.1
62.5°	451.1	461.1	480.1	499.1	524.1	527.1	519.1	498.1	441.1	378.1	300.1
65°	424.1	435.1	462.1	484.1	504.1	508.1	499.1	481.1	430.1	364.1	284.1
67.5°	397.1	404.1	427.1	461.1	475.1	479.1	476.1	455.1	411.1	336.1	265.1
70°	366.1	375.1	393.1	428.1	442.1	441.1	450.1	426.1	382.1	312.1	245.1
72.5°	324.1	337.1	355.1	384.1	401.1	395.1	409.1	389.1	344.1	282.1	218.1
75°	275.1	286.1	309.1	332.1	351.1	344.1	355.1	341.1	300.1	246.1	187.0
77.5°	220.1	233.1	254.1	275.1	288.1	288.1	293.1	281.1	249.1	202.0	153.0
80°	163.0	175.0	194.0	209.1	221.1	222.1	227.1	221.1	192.0	157.0	117.0
82.5°	108.0	114.0	131.0	143.0	155.0	154.0	162.0	158.0	134.0	108.0	78.0
85°	46.0	50.0	64.0	74.0	85.0	81.0	92.0	91.0	72.0	52.0	35.0
87.5°	2.0	3.0	3.0	2.0	3.0	1.0	3.0	4.0	3.0	2.0	2.0
90°	5.0	5.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	5.0
92.5°	5.0	5.0	5.0	7.0	8.0	7.5	7.0	8.0	6.0	6.0	5.0
95°	6.0	6.0	7.0	9.0	11.0	11.5	12.0	12.0	7.0	7.0	6.0
97.5°	8.0	9.0	9.0	11.0	18.0	25.5	33.0	20.0	10.0	10.0	9.0
100°	13.0	14.0	14.0	25.0	53.0	62.0	71.1	51.0	26.0	19.0	14.0
102.5°	42.0	44.0	54.0	81.1	120.1	114.6	109.1	92.1	87.1	60.0	48.0
105°	107.1	106.1	114.1	135.1	168.1	166.6	165.1	152.1	138.1	119.1	110.1
107.5°	141.1	141.1	148.1	166.1	191.1	207.2	223.2	226.2	179.1	157.1	147.1
110°	159.1	159.1	165.1	180.1	213.2	235.7	258.2	256.2	221.2	194.1	181.1



REPORT NUMBER: P832838
 CATALOG NUMBER: TTN-D0-740-U-DL-UPL2

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
112.5°	163.1	164.1	172.1	195.1	231.2	241.2	251.2	242.2	228.2	216.2	206.2
115°	169.1	169.1	178.1	200.2	220.2	224.2	228.2	218.2	207.2	199.2	195.1
117.5°	167.1	170.1	172.1	184.1	197.1	200.1	203.2	198.1	183.1	177.1	175.1
120°	155.1	155.1	157.1	163.1	170.1	171.6	173.1	171.1	161.1	156.1	155.1
122.5°	138.1	139.1	138.1	141.1	146.1	147.6	149.1	147.1	139.1	137.1	137.1
125°	121.1	121.1	120.1	122.1	125.1	124.6	124.1	125.1	121.1	120.1	120.1
127.5°	109.1	108.1	106.1	107.1	108.1	108.1	108.1	109.1	105.1	106.1	107.1
130°	97.1	97.1	95.1	95.1	95.1	94.1	93.1	95.1	93.1	94.1	95.1
132.5°	86.1	86.1	83.1	82.1	82.1	82.1	82.1	83.1	82.1	84.1	86.1
135°	77.1	77.1	74.1	75.1	75.1	74.6	74.1	75.1	74.1	76.1	77.1
137.5°	70.1	70.1	68.1	68.1	68.1	67.6	67.1	68.1	68.1	69.1	71.1
140°	64.0	64.0	63.0	63.0	62.0	62.5	63.0	63.0	63.0	64.0	65.0
142.5°	61.0	60.0	59.0	58.0	59.0	59.0	59.0	59.0	58.0	59.0	61.0
145°	56.0	56.0	55.0	55.0	55.0	55.5	56.0	55.0	55.0	56.0	56.0
147.5°	53.0	53.0	52.0	53.0	53.0	53.0	53.0	53.0	52.0	53.0	53.0
150°	52.0	51.0	50.0	51.0	51.0	50.5	50.0	50.0	50.0	50.0	51.0
152.5°	49.0	49.0	48.0	49.0	48.0	48.0	48.0	48.0	48.0	48.0	49.0
155°	47.0	47.0	46.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0
157.5°	45.0	46.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	46.0
160°	44.0	44.0	44.0	44.0	43.0	43.0	43.0	43.0	44.0	44.0	44.0
162.5°	43.0	43.0	43.0	43.0	42.0	42.0	42.0	42.0	42.0	43.0	43.0
165°	43.0	42.0	42.0	42.0	41.0	41.0	41.0	41.0	41.0	42.0	43.0
167.5°	41.0	41.0	41.0	41.0	41.0	40.5	40.0	40.0	41.0	41.0	41.0
170°	41.0	41.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
172.5°	41.0	41.0	41.0	41.0	40.0	40.0	40.0	40.0	40.0	40.0	41.0
175°	41.0	41.0	41.0	41.0	40.0	40.0	40.0	40.0	41.0	41.0	41.0
177.5°	41.0	41.0	41.0	41.0	40.0	40.5	41.0	41.0	41.0	41.0	41.0
180°	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0



REPORT NUMBER: P832838
 CATALOG NUMBER: TTN-D0-740-U-DL-UPL2

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°	97.0	96.0	94.0	93.0	92.0	90.0	90.0	89.0	89.0	89.0	88.0
5°	97.0	95.0	93.0	90.0	88.0	86.0	84.0	82.0	81.0	81.0	80.0
7.5°	95.0	93.0	90.0	87.0	84.0	80.0	78.0	74.0	73.0	72.0	72.0
10°	95.0	93.0	88.0	84.0	80.0	76.0	73.0	69.0	66.0	65.0	65.0
12.5°	96.0	93.0	88.0	83.0	78.0	73.0	69.0	65.0	62.0	60.0	60.0
15°	100.0	96.0	90.0	83.0	77.0	71.0	67.0	62.0	59.0	57.0	57.0
17.5°	105.0	101.0	92.0	84.0	77.0	70.0	65.0	60.0	57.0	55.0	54.0
20°	112.0	106.0	96.0	85.0	77.0	70.0	64.0	59.0	55.0	53.0	53.0
22.5°	120.0	113.0	100.0	87.0	78.0	70.0	64.0	58.0	54.0	52.0	52.0
25°	130.0	121.0	106.0	91.0	80.0	71.0	64.0	58.0	54.0	52.0	52.0
27.5°	141.0	131.0	112.0	95.0	82.0	72.0	64.0	58.0	54.0	52.0	52.0
30°	151.0	140.0	118.0	99.0	85.0	73.0	65.0	59.0	55.0	53.0	52.0
32.5°	162.0	148.0	124.0	103.0	87.0	75.0	66.0	60.0	55.0	53.0	53.0
35°	173.0	158.0	130.0	108.0	90.0	77.0	67.0	61.0	56.0	54.0	54.0
37.5°	185.0	169.0	137.0	112.0	93.0	79.0	69.0	62.0	57.0	55.0	55.0
40°	199.0	180.0	144.0	117.0	96.0	81.0	70.0	64.0	59.0	57.0	57.0
42.5°	212.1	190.0	151.0	121.0	99.0	83.0	72.0	65.0	61.0	59.0	59.0
45°	225.1	202.0	158.0	126.0	102.0	86.0	74.0	68.0	63.0	61.0	61.0
47.5°	240.1	213.1	166.0	130.0	105.0	88.0	76.0	70.0	65.0	64.0	63.0
50°	252.1	221.1	171.0	134.0	107.0	90.0	78.0	71.0	67.0	65.0	65.0
52.5°	263.1	229.1	175.0	136.0	108.0	91.0	80.0	73.0	69.0	67.0	67.0
55°	269.1	232.1	178.0	136.0	109.0	92.0	80.0	73.0	69.0	68.0	67.0
57.5°	269.1	232.1	176.0	134.0	107.0	90.0	79.0	72.0	69.0	67.0	67.0
60°	265.1	229.1	171.0	130.0	104.0	87.0	77.0	70.0	67.0	66.0	66.0
62.5°	259.1	224.1	167.0	125.0	100.0	83.0	74.0	67.0	65.0	65.0	64.0
65°	243.1	209.1	158.0	118.0	94.0	78.0	70.0	64.0	62.0	61.0	60.0
67.5°	226.1	195.0	144.0	110.0	86.0	73.0	65.0	60.0	57.0	57.0	56.0
70°	209.1	180.0	131.0	99.0	77.0	67.0	59.0	54.0	52.0	52.0	52.0
72.5°	186.0	161.0	116.0	87.0	68.0	59.0	53.0	48.0	47.0	47.0	46.0
75°	159.0	137.0	98.0	74.0	57.0	50.0	45.0	40.0	40.0	40.0	40.0
77.5°	130.0	111.0	78.0	59.0	45.0	40.0	37.0	33.0	33.0	33.0	33.0
80°	98.0	82.0	57.0	43.0	33.0	29.0	27.0	25.0	26.0	26.0	25.0
82.5°	64.0	54.0	36.0	27.0	21.0	19.0	19.0	17.0	18.0	18.0	18.0
85°	28.0	24.0	15.0	12.0	10.0	10.0	10.0	9.0	10.0	10.0	10.0
87.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.0	1.0	2.0	1.0
90°	5.0	5.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	5.0	5.0
92.5°	5.0	5.0	6.0	6.0	8.0	7.0	8.0	7.0	5.0	5.0	5.0
95°	6.0	6.0	7.0	7.0	12.0	12.0	11.0	9.0	7.0	6.0	6.0
97.5°	8.0	9.0	10.0	10.0	20.0	33.0	18.0	11.0	9.0	9.0	8.0
100°	14.0	14.0	19.0	26.0	51.0	71.1	53.0	25.0	14.0	14.0	13.0
102.5°	46.0	48.0	60.0	87.1	92.1	109.1	120.1	81.1	54.0	44.0	42.0
105°	110.1	110.1	119.1	138.1	152.1	165.1	168.1	135.1	114.1	106.1	107.1
107.5°	146.1	147.1	157.1	179.1	226.2	223.2	191.1	166.1	148.1	141.1	141.1
110°	179.1	181.1	194.1	221.2	256.2	258.2	213.2	180.1	165.1	159.1	159.1



REPORT NUMBER: P832838
 CATALOG NUMBER: TTN-D0-740-U-DL-UPL2

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	204.2	206.2	216.2	228.2	242.2	251.2	231.2	195.1	172.1	164.1	163.1
115°	197.1	195.1	199.2	207.2	218.2	228.2	220.2	200.2	178.1	169.1	169.1
117.5°	172.1	175.1	177.1	183.1	198.1	203.2	197.1	184.1	172.1	170.1	167.1
120°	153.1	155.1	156.1	161.1	171.1	173.1	170.1	163.1	157.1	155.1	155.1
122.5°	135.1	137.1	137.1	139.1	147.1	149.1	146.1	141.1	138.1	139.1	138.1
125°	119.1	120.1	120.1	121.1	125.1	124.1	125.1	122.1	120.1	121.1	121.1
127.5°	106.1	107.1	106.1	105.1	109.1	108.1	108.1	107.1	106.1	108.1	109.1
130°	96.1	95.1	94.1	93.1	95.1	93.1	95.1	95.1	95.1	97.1	97.1
132.5°	86.1	86.1	84.1	82.1	83.1	82.1	82.1	82.1	83.1	86.1	86.1
135°	77.1	77.1	76.1	74.1	75.1	74.1	75.1	75.1	74.1	77.1	77.1
137.5°	72.1	71.1	69.1	68.1	68.1	67.1	68.1	68.1	68.1	70.1	70.1
140°	65.0	65.0	64.0	63.0	63.0	63.0	62.0	63.0	63.0	64.0	64.0
142.5°	61.0	61.0	59.0	58.0	59.0	59.0	59.0	58.0	59.0	60.0	61.0
145°	57.0	56.0	56.0	55.0	55.0	56.0	55.0	55.0	55.0	56.0	56.0
147.5°	54.0	53.0	53.0	52.0	53.0	53.0	53.0	53.0	52.0	53.0	53.0
150°	51.0	51.0	50.0	50.0	50.0	50.0	51.0	51.0	50.0	51.0	52.0
152.5°	50.0	49.0	48.0	48.0	48.0	48.0	48.0	49.0	48.0	49.0	49.0
155°	47.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0	46.0	47.0	47.0
157.5°	46.0	46.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	46.0	45.0
160°	45.0	44.0	44.0	44.0	43.0	43.0	43.0	44.0	44.0	44.0	44.0
162.5°	44.0	43.0	43.0	42.0	42.0	42.0	42.0	43.0	43.0	43.0	43.0
165°	42.0	43.0	42.0	41.0	41.0	41.0	41.0	42.0	42.0	42.0	43.0
167.5°	42.0	41.0	41.0	41.0	40.0	40.0	41.0	41.0	41.0	41.0	41.0
170°	41.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	41.0	41.0
172.5°	41.0	41.0	40.0	40.0	40.0	40.0	40.0	41.0	41.0	41.0	41.0
175°	40.0	41.0	41.0	41.0	40.0	40.0	40.0	41.0	41.0	41.0	41.0
177.5°	41.0	41.0	41.0	41.0	41.0	41.0	40.0	41.0	41.0	41.0	41.0
180°	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0

(END OF REPORT)