

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: INVUE

Report Number: P400782

Luminaire Tested: **ENT-SA1-740-U-SLR-HSS-XXB**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400782
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-10)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1-740-U-SLR-HSS-XXB
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 4000K LIGHTSQUARE IN BATTERY OPERATION WITH 16 LEDS AND SPILL LIGHT ELIMINATOR RIGHT OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 580 lumens
Efficiency: N/A
Efficacy: 44.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B0 - U0 - G0

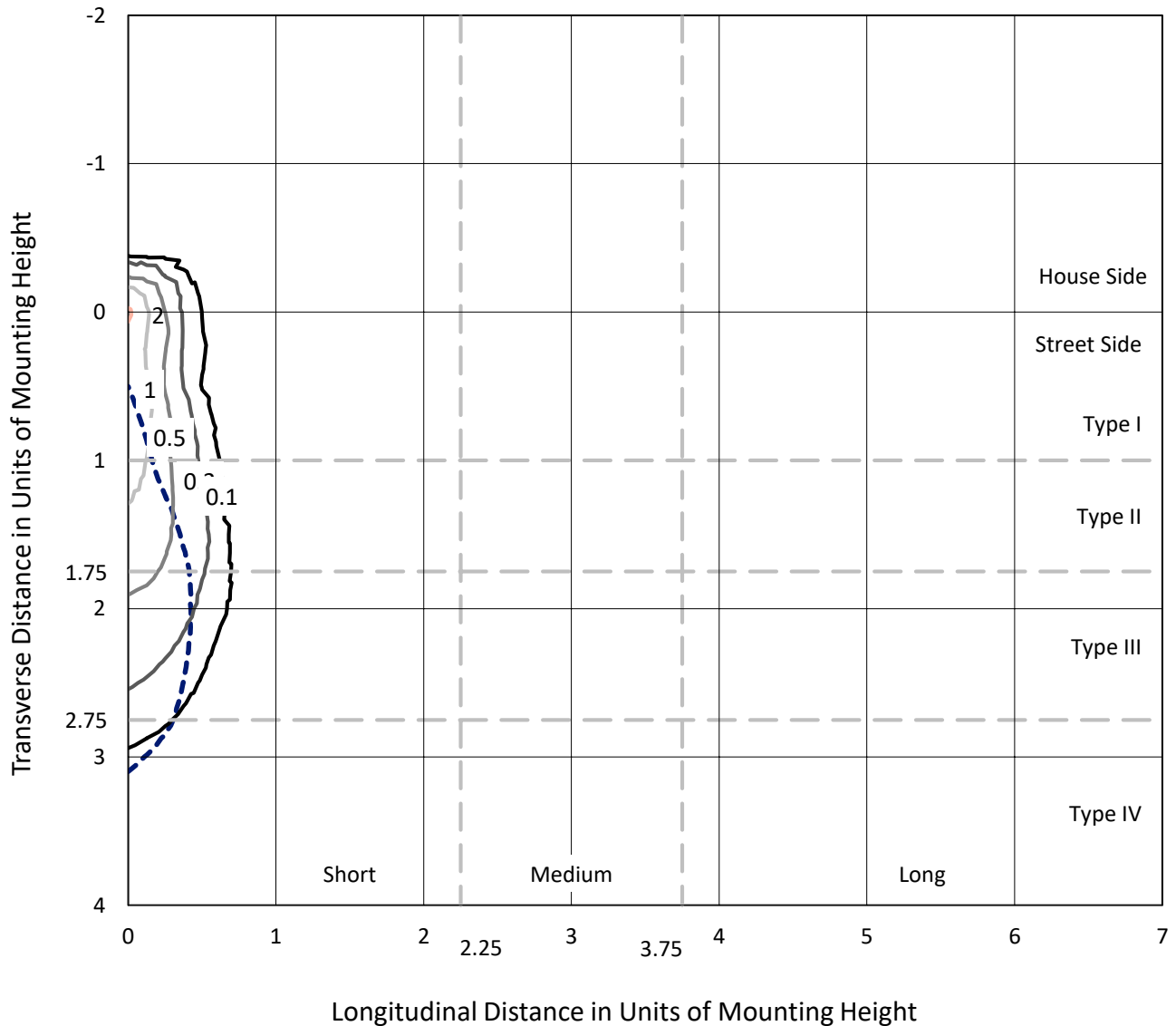
Input Watts (W): 13
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P400782
 CATALOG NUMBER: ENT-SA1-740-U-SLR-HSS-XXB

Iso-Footcandle Lines of Horizontal Illumination

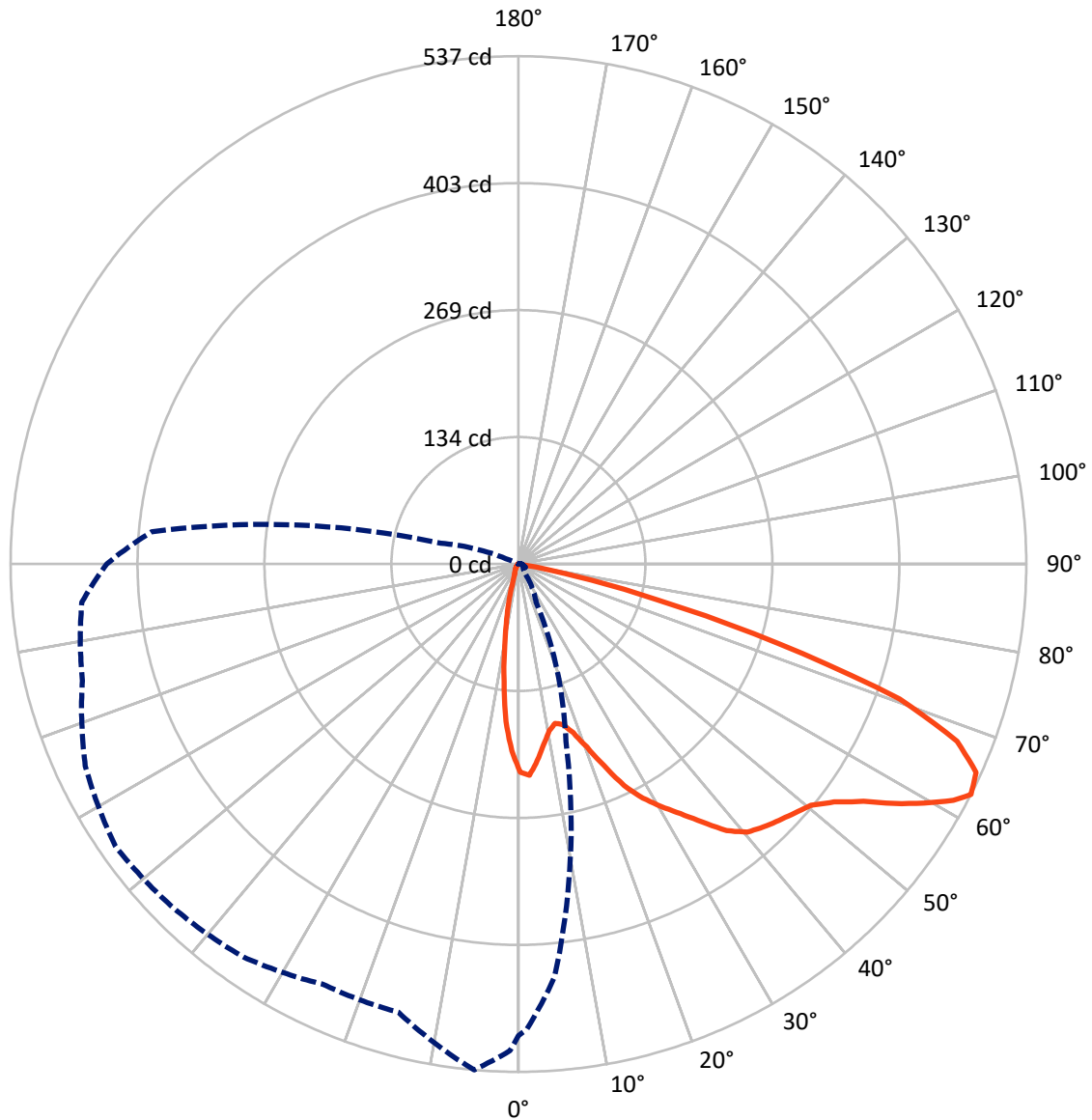
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 2.2 fc
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P400782
CATALOG NUMBER: ENT-SA1-740-U-SLR-HSS-XXB

Luminous Intensity Polar Plot



— Vertical Plane Through 355-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

REPORT NUMBER: P400782

CATALOG NUMBER: ENT-SA1-740-U-SLR-HSS-XXB

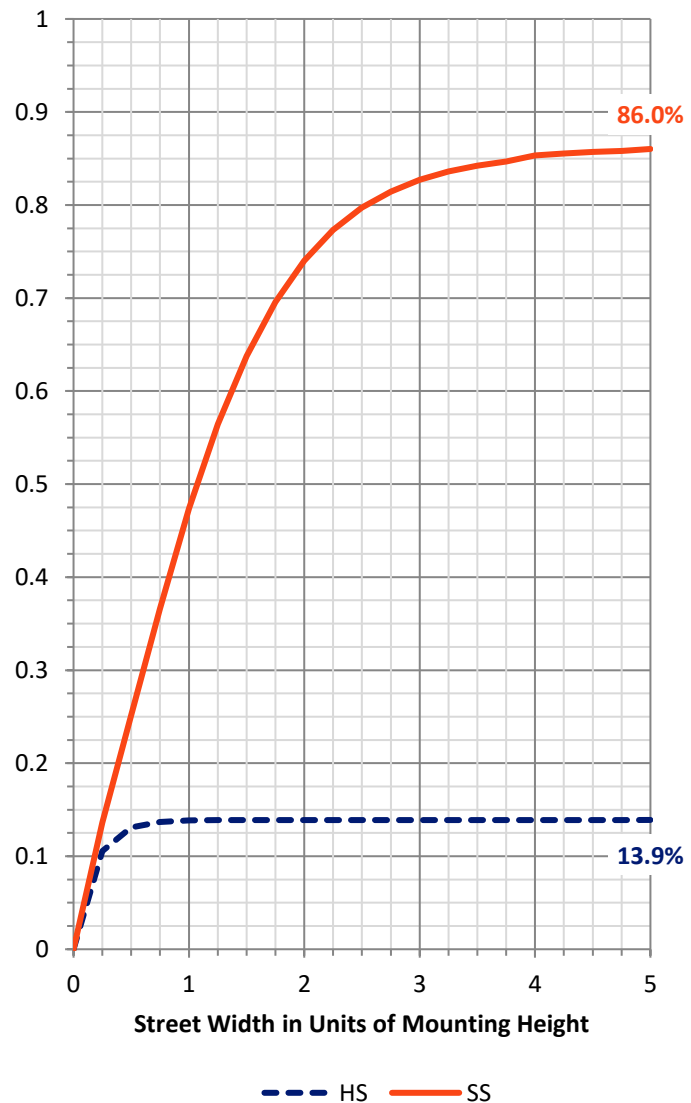
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	81.6	0.0	81.6
	% Fixture	14.1	0.0	14.1
Street Side	Lumens	498.4	0.0	498.4
	% Fixture	85.9	0.0	85.9
Total	Lumens	580.0	0.0	580.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	16.5	2.8
10°-20°	31.4	5.4
20°-30°	43.6	7.5
30°-40°	63.1	10.9
40°-50°	90.5	15.6
50°-60°	131.3	22.6
60°-70°	142.0	24.5
70°-80°	57.4	9.9
80°-90°	4.2	0.7
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°	580.0	100.0
0°-180°	580.0	100.0



REPORT NUMBER: P400782

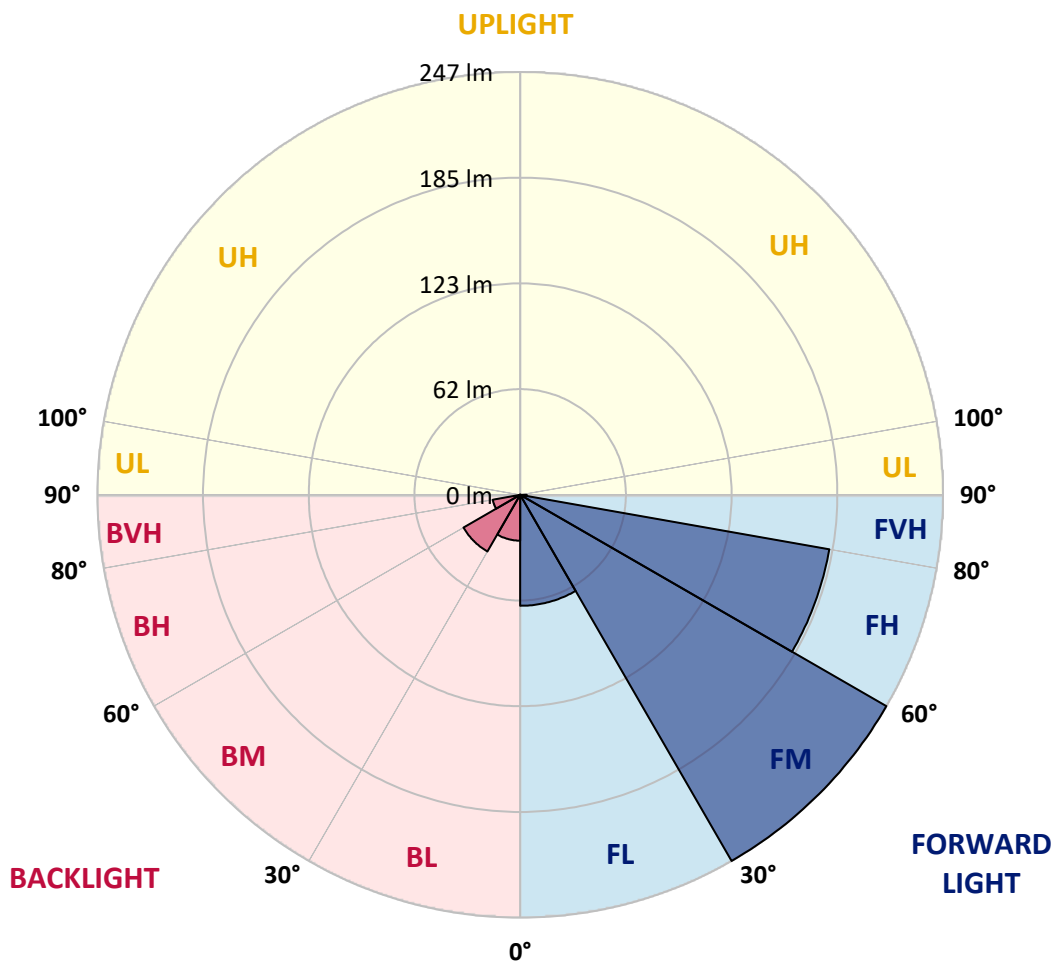
CATALOG NUMBER: ENT-SA1-740-U-SLR-HSS-XXB

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	64.7	11.2			
FM	(30°-60°)	246.7	42.5			
FH	(60°-80°)	183.2	31.6			G0/660
FVH	(80°-90°)	3.8	0.7			G0/10
BL	(0°-30°)	26.7	4.6	B0/110		
BM	(30°-60°)	38.2	6.6	B0/220		
BH	(60°-80°)	16.2	2.8	B0/110		G0/110
BVH	(80°-90°)	0.4	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G0

Type IV Short





REPORT NUMBER: P400782

CATALOG NUMBER: ENT-SA1-740-U-SLR-HSS-XXB

CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	220.0	220.0	220.0	220.0	220.0	220.0	220.0	220.0	220.0	220.0	220.0
2.5°	220.9	220.0	217.9	213.5	207.0	202.9	200.3	196.8	193.3	192.1	189.8
5°	201.6	200.2	197.3	186.0	175.9	165.8	158.6	151.7	149.4	144.8	147.6
7.5°	183.1	182.4	175.7	161.1	145.1	132.1	123.8	113.7	110.7	106.0	102.3
10°	168.5	167.9	159.9	140.8	123.5	112.7	106.2	99.6	93.1	86.4	81.1
12.5°	161.1	159.9	150.6	130.0	114.0	105.0	98.1	89.4	82.4	73.5	67.0
15°	162.3	161.1	150.5	128.3	109.4	97.0	86.8	76.4	66.6	57.7	51.4
17.5°	171.5	171.0	158.0	129.8	103.9	87.5	73.8	59.9	48.2	38.7	33.3
20°	189.4	188.0	169.2	133.0	98.1	76.4	57.7	40.6	30.9	24.3	22.0
22.5°	211.5	208.4	186.7	137.7	92.6	64.6	41.8	27.3	22.0	19.5	17.9
25°	237.6	237.7	208.5	144.0	87.1	53.6	29.3	21.7	18.6	16.8	15.4
27.5°	258.7	257.1	228.2	150.3	81.1	44.0	24.6	18.9	16.3	14.3	13.5
30°	274.3	271.9	241.1	154.7	73.5	37.2	22.0	18.0	15.4	13.2	12.2
32.5°	290.4	287.4	252.8	157.1	68.9	34.0	19.5	15.7	13.8	12.9	11.5
35°	309.2	306.5	265.8	156.9	66.4	32.1	17.7	14.2	11.7	10.2	9.3
37.5°	330.2	324.8	279.2	155.9	64.7	31.2	16.1	13.2	10.9	9.3	8.1
40°	348.2	342.8	291.6	154.5	63.6	30.3	15.1	12.5	10.3	8.6	7.5
42.5°	362.3	357.2	303.2	152.8	63.0	28.3	15.6	12.1	9.9	8.1	6.9
45°	374.5	369.2	317.0	152.5	62.8	27.0	15.4	11.9	9.6	7.6	6.4
47.5°	388.6	385.8	335.1	156.3	61.9	25.9	14.1	12.9	9.5	7.3	6.1
50°	409.5	407.1	358.9	167.6	60.5	24.9	12.9	14.1	9.5	7.1	5.7
52.5°	438.7	436.0	396.3	182.2	59.2	23.8	11.6	13.7	9.6	6.8	5.5
55°	469.0	468.6	431.6	197.9	58.1	21.2	10.2	12.3	9.4	6.3	5.2
57.5°	492.8	492.5	458.1	208.4	55.9	17.1	9.3	10.2	8.7	5.7	4.7
60°	502.6	499.7	461.0	208.4	50.8	14.1	8.5	8.0	8.8	5.2	4.1
61°	502.6	498.9	455.8	205.3	48.3	13.4	8.0	7.5	9.1	4.9	3.9
62.5°	498.7	492.6	438.2	194.2	44.3	13.4	7.3	6.7	8.3	4.7	3.6
65°	481.3	471.3	396.7	168.8	40.2	13.8	6.3	5.6	6.0	4.0	3.1
67.5°	438.5	427.3	343.0	133.6	36.8	14.6	5.3	4.9	4.6	3.6	2.8
70°	361.3	351.8	279.9	100.1	34.2	14.8	4.6	4.1	3.9	3.1	2.4
72.5°	230.9	215.2	174.8	67.8	27.4	12.9	3.8	3.9	3.6	2.5	2.0
75°	111.6	115.9	101.7	34.2	18.5	8.4	3.0	3.2	2.9	2.3	1.7
77.5°	49.9	49.0	48.5	8.7	4.7	2.9	1.8	2.2	2.3	2.1	1.5
80°	5.2	7.0	4.1	2.6	1.7	1.3	1.0	1.1	1.4	1.5	0.8
82.5°	0.2	0.1	0.1	0.3	0.3	0.2	0.0	0.0	0.2	0.2	0.1
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P400782

CATALOG NUMBER: ENT-SA1-740-U-SLR-HSS-XXB

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	220.0	220.0	220.0	220.0	220.0	220.0	220.0	220.0	220.0	220.0	220.0
2.5°	187.8	190.9	189.5	189.1	191.0	190.1	192.8	192.9	195.0	197.7	199.5
5°	147.6	145.2	150.0	153.2	157.2	156.0	160.8	160.2	162.9	167.2	165.5
7.5°	102.5	102.8	105.4	108.2	119.0	121.2	122.8	124.1	123.9	125.0	126.8
10°	78.4	76.4	74.7	78.7	83.0	87.7	88.4	90.1	85.4	87.3	88.3
12.5°	64.2	61.9	58.1	56.0	57.0	59.8	60.9	62.0	59.2	59.3	61.4
15°	48.7	45.6	44.1	41.3	40.3	40.1	40.6	39.1	38.8	37.5	38.3
17.5°	31.7	30.8	30.0	29.4	28.6	28.3	26.3	22.7	20.7	20.2	20.2
20°	21.1	20.4	20.4	21.6	21.2	20.3	17.6	14.6	13.1	12.6	12.9
22.5°	17.3	16.9	16.2	16.2	16.6	16.0	13.4	11.2	10.2	10.2	10.2
25°	15.0	14.8	14.1	13.4	13.7	13.1	10.9	9.5	8.8	8.7	8.8
27.5°	13.2	13.1	12.3	11.6	11.6	11.1	9.4	8.1	7.7	7.5	7.6
30°	11.9	11.7	10.8	10.2	10.1	9.6	8.0	7.1	6.7	6.5	6.5
32.5°	11.0	10.6	9.8	9.2	8.8	8.1	7.0	6.1	5.6	5.5	5.5
35°	8.8	8.8	8.5	8.1	7.7	6.7	5.9	5.0	4.6	4.5	4.5
37.5°	7.7	7.2	6.7	6.8	6.5	5.6	4.8	4.0	3.7	3.6	3.6
40°	7.0	6.4	5.6	5.3	5.4	4.9	4.0	3.1	2.6	2.8	2.6
42.5°	6.3	5.9	4.9	4.1	4.0	4.1	3.1	2.2	1.8	1.8	1.8
45°	5.9	5.4	4.4	3.4	2.9	3.2	2.4	1.5	1.1	1.1	1.1
47.5°	5.5	5.0	3.9	2.9	2.1	2.2	1.7	0.9	0.7	0.5	0.6
50°	5.3	4.7	3.6	2.3	1.5	1.3	1.1	0.5	0.1	0.1	0.0
52.5°	4.9	4.5	3.2	2.0	1.1	0.8	0.6	0.1	0.0	0.0	0.0
55°	4.7	4.1	2.9	1.7	0.9	0.5	0.1	0.0	0.0	0.0	0.0
57.5°	4.2	3.8	2.5	1.4	0.7	0.2	0.0	0.0	0.0	0.0	0.0
60°	3.8	3.4	2.2	1.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
61°	3.6	3.2	2.1	0.9	0.3	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	3.3	3.0	1.8	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0
65°	2.9	2.5	1.6	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	2.5	2.3	1.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	2.2	2.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	1.8	1.7	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	1.6	1.4	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	1.3	1.1	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.7	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P400782

CATALOG NUMBER: ENT-SA1-740-U-SLR-HSS-XXB

CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	220.0	220.0	220.0	220.0	220.0	220.0	220.0	220.0	220.0	220.0	220.0
2.5°	201.1	205.1	208.9	213.7	216.3	223.6	228.7	233.1	236.5	237.2	240.0
5°	170.1	175.7	179.4	189.5	195.1	207.2	216.4	227.5	237.3	242.7	247.7
7.5°	128.1	130.8	137.1	147.2	160.6	171.0	186.7	200.6	218.4	228.2	237.3
10°	90.4	93.0	102.3	112.8	125.0	142.5	161.6	179.8	197.9	210.4	221.2
12.5°	63.6	71.8	81.0	94.5	106.4	119.2	139.6	160.9	183.4	195.3	207.0
15°	41.8	49.1	61.9	78.7	93.6	106.2	125.1	150.1	178.7	192.0	203.1
17.5°	20.7	26.1	37.3	55.4	75.3	95.0	117.9	148.2	184.8	199.8	210.3
20°	13.0	14.6	18.7	31.3	54.2	83.3	112.5	152.1	201.3	217.9	224.7
22.5°	10.4	10.9	12.5	16.6	33.1	68.9	107.8	157.3	219.4	239.7	246.7
25°	9.0	9.3	10.2	12.3	19.2	51.6	102.0	166.6	240.5	265.1	266.8
27.5°	7.7	8.0	8.8	10.4	13.7	34.8	93.8	177.5	265.8	287.4	286.2
30°	6.5	7.0	7.8	9.0	10.8	23.5	78.4	188.6	284.4	301.7	299.9
32.5°	5.6	6.0	6.7	7.7	9.0	16.2	58.9	195.8	299.9	315.3	311.2
35°	4.6	4.9	5.5	6.4	7.2	11.5	44.5	196.0	315.8	332.0	321.9
37.5°	3.7	3.9	4.5	5.3	6.0	9.0	32.7	192.2	335.6	353.8	334.1
40°	2.8	3.1	3.7	4.4	5.0	7.6	24.4	183.1	354.9	375.6	348.8
42.5°	1.8	2.3	2.9	3.6	4.8	6.1	17.2	167.8	370.5	395.0	363.1
45°	1.1	1.5	2.2	3.0	4.9	4.8	11.5	149.5	381.6	409.8	372.9
47.5°	0.6	0.9	1.6	2.9	4.4	3.6	7.1	132.1	391.7	418.4	377.4
50°	0.1	0.3	1.1	3.6	3.7	2.6	4.7	121.2	397.0	416.3	376.9
52.5°	0.0	0.0	0.8	3.4	2.6	2.1	3.7	119.6	405.2	419.1	384.8
55°	0.0	0.0	0.3	1.5	1.5	1.7	3.2	117.4	419.9	436.2	408.7
57.5°	0.0	0.0	0.0	0.7	0.9	1.4	3.0	111.7	435.4	454.4	437.7
60°	0.0	0.0	0.0	0.3	0.6	1.1	2.6	98.6	421.2	454.5	461.8
61°	0.0	0.0	0.0	0.3	0.5	1.0	2.4	94.0	408.5	447.1	464.8
62.5°	0.0	0.0	0.0	0.1	0.3	0.8	2.1	84.9	389.4	435.3	463.4
65°	0.0	0.0	0.0	0.0	0.1	0.5	1.6	68.6	357.6	405.6	447.6
67.5°	0.0	0.0	0.0	0.0	0.0	0.1	1.0	48.3	311.9	372.0	413.7
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.5	28.0	251.3	314.9	354.4
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.2	12.7	163.1	243.2	279.6
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4	100.4	175.7	208.9
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	68.1	116.9	140.6
80°	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.9	41.9	73.0	79.3
82.5°	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	21.7	51.5	52.6
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.1	10.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P400782

CATALOG NUMBER: ENT-SA1-740-U-SLR-HSS-XXB

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	220.0	220.0	220.0	220.0	220.0	220.0	220.0	220.0	220.0	220.0
2.5°	242.5	243.2	243.6	242.8	237.9	235.2	229.6	223.6	221.5	220.9
5°	256.6	260.5	259.8	254.6	245.9	235.4	222.3	208.8	203.6	201.6
7.5°	253.9	264.1	266.0	260.5	245.9	227.5	208.5	192.5	185.0	183.1
10°	239.9	252.7	258.9	257.2	243.5	222.2	198.9	179.1	171.0	168.5
12.5°	226.3	238.7	242.6	244.0	236.5	218.1	194.1	172.8	164.3	161.1
15°	217.3	224.9	224.7	227.2	226.7	216.4	197.2	176.1	166.5	162.3
17.5°	214.3	212.0	209.0	211.1	215.1	216.9	207.3	187.5	176.4	171.5
20°	216.1	204.9	198.3	198.2	206.7	220.7	222.1	206.5	196.0	189.4
22.5°	225.5	201.3	191.2	191.4	201.9	226.3	239.2	231.3	219.8	211.5
25°	239.4	202.0	188.4	189.8	201.4	231.3	257.6	259.5	244.8	237.6
27.5°	253.5	208.0	188.6	190.1	203.4	233.9	268.2	280.3	267.6	258.7
30°	263.4	215.3	190.6	192.2	206.5	236.0	272.2	297.4	284.3	274.3
32.5°	272.7	222.9	194.0	195.6	212.7	240.2	279.8	314.6	300.2	290.4
35°	281.8	230.3	200.2	203.0	222.6	247.9	287.5	334.8	322.8	309.2
37.5°	289.6	238.6	210.8	216.9	236.2	259.7	297.9	357.7	345.4	330.2
40°	296.1	248.4	232.9	239.6	256.8	272.2	309.5	372.8	364.6	348.2
42.5°	301.4	265.6	264.4	273.9	286.0	286.6	312.9	380.0	376.9	362.3
45°	310.2	296.4	305.9	321.5	320.7	303.8	311.9	386.6	386.9	374.5
47.5°	324.7	335.1	362.3	372.9	367.5	327.3	312.9	393.2	398.4	388.6
50°	345.3	379.0	414.5	428.5	412.8	351.0	321.0	401.0	416.6	409.5
52.5°	363.0	412.1	462.7	475.2	453.8	376.2	340.1	417.9	441.0	438.7
55°	388.3	440.7	497.1	506.7	489.5	404.8	365.6	442.7	467.9	469.0
57.5°	414.1	466.5	519.4	529.2	516.1	440.4	402.0	478.2	493.1	492.8
60°	442.8	490.6	529.5	534.9	527.5	475.9	441.2	510.8	510.5	502.6
61°	459.2	498.3	528.8	530.4	523.2	486.4	461.4	523.3	513.0	502.6
62.5°	477.3	505.3	520.3	515.0	507.2	490.1	490.6	537.0	514.7	498.7
65°	495.7	487.8	481.2	455.4	448.0	456.3	515.3	531.8	504.3	481.3
67.5°	464.2	418.0	403.9	377.9	348.9	382.6	491.9	500.3	469.0	438.5
70°	379.4	307.1	290.4	289.4	268.6	305.6	433.8	427.7	389.3	361.3
72.5°	297.4	209.6	186.7	192.0	187.9	227.8	354.9	287.0	249.6	230.9
75°	233.1	149.0	128.5	127.6	123.1	155.2	259.8	151.3	124.9	111.6
77.5°	153.8	107.3	107.0	98.8	95.4	84.1	116.6	60.6	49.5	49.9
80°	88.6	65.8	77.1	61.2	61.3	49.3	47.2	8.8	7.1	5.2
82.5°	50.8	31.6	23.9	9.4	19.7	19.7	3.8	0.1	0.1	0.2
85°	4.9	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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