

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: P162501

Luminaire Tested: **EMM-F04-LED-E1-SL3-HSS-7030**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P162501
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33727)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: EMM-F04-LED-E1-SL3-HSS-7030
Description: EPIC MODERN MEDIUM DECORATIVE LED LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD
Light Source: (28) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4971.7 lumens
Efficiency: N/A
Efficacy: 48.6 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.67' x L: 1' x H: 0.1')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B0 - U0 - G2

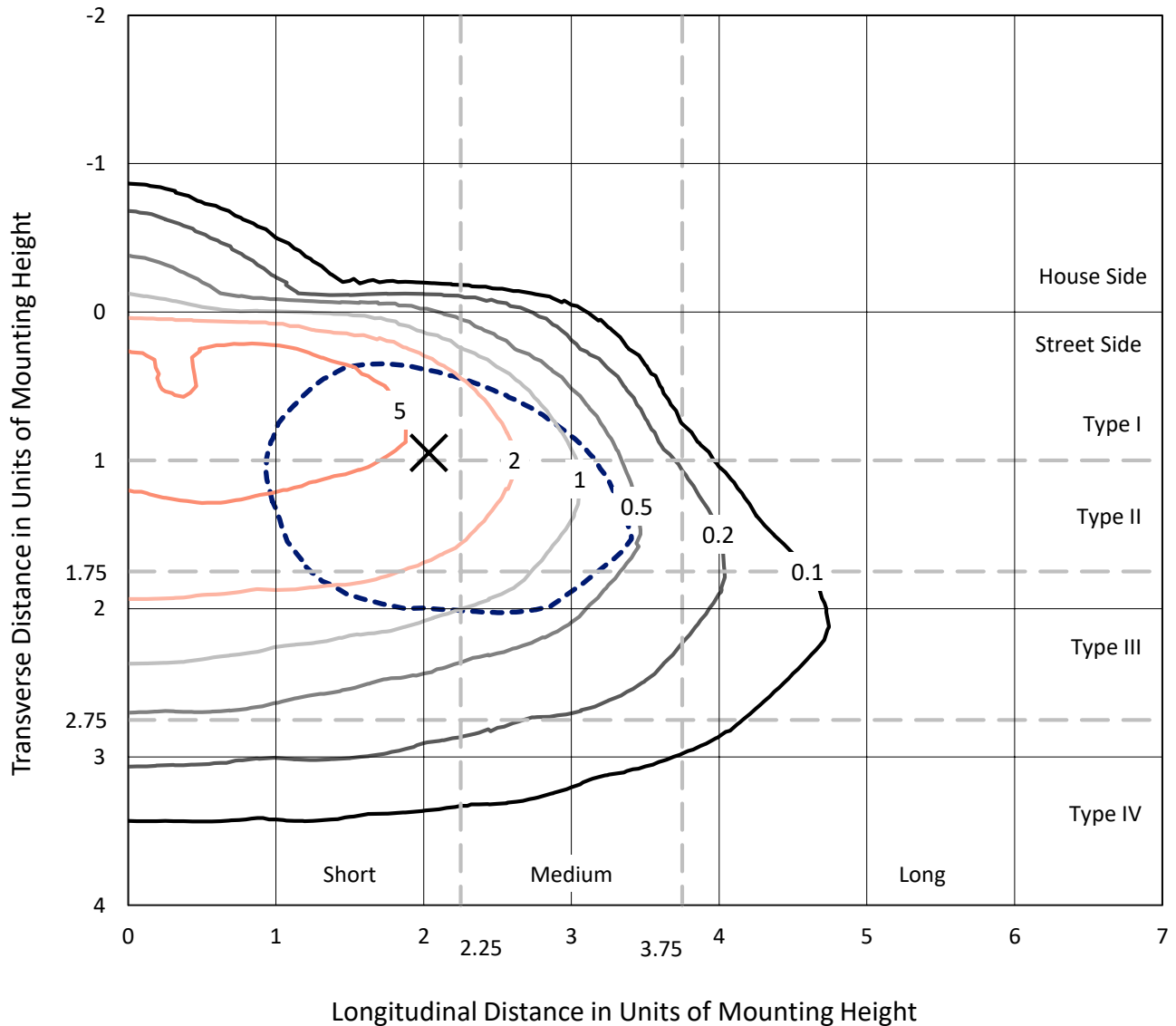
Input Watts (W): 102.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

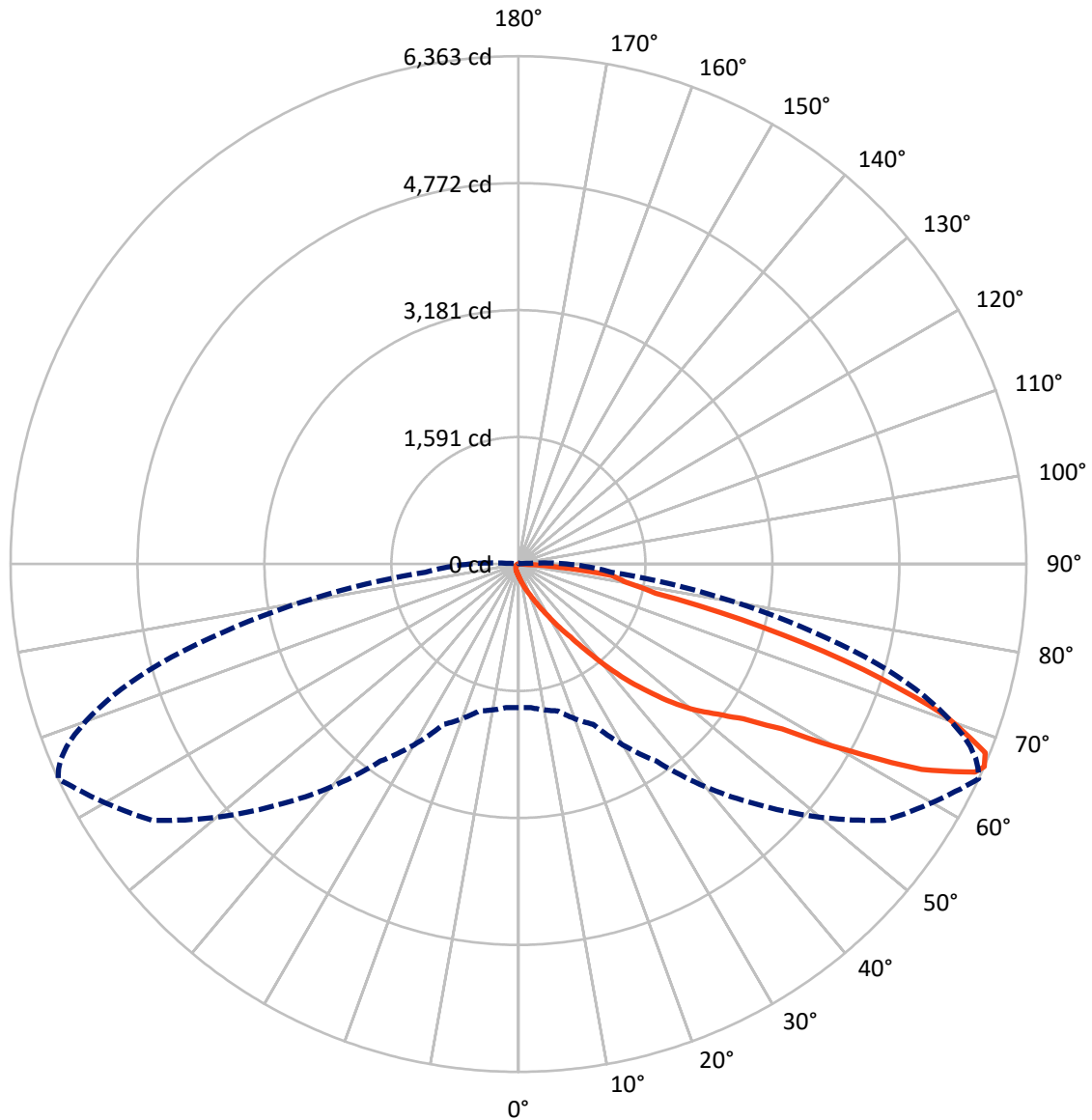
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.2 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 65-Deg Lateral - - - Horizontal Cone Through 66-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	107.8	0.0	107.8
	% Fixture	2.2	0.0	2.2
Street Side	Lumens	4863.9	0.0	4863.9
	% Fixture	97.8	0.0	97.8
Total	Lumens	4971.7	0.0	4971.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	16.8	0.3
10°-20°	71.2	1.4
20°-30°	153.6	3.1
30°-40°	328.1	6.6
40°-50°	725.6	14.6
50°-60°	1229.6	24.7
60°-70°	1640.8	33.0
70°-80°	722.8	14.5
80°-90°	83.3	1.7
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°	4971.7	100.0
0°-180°	4971.7	100.0



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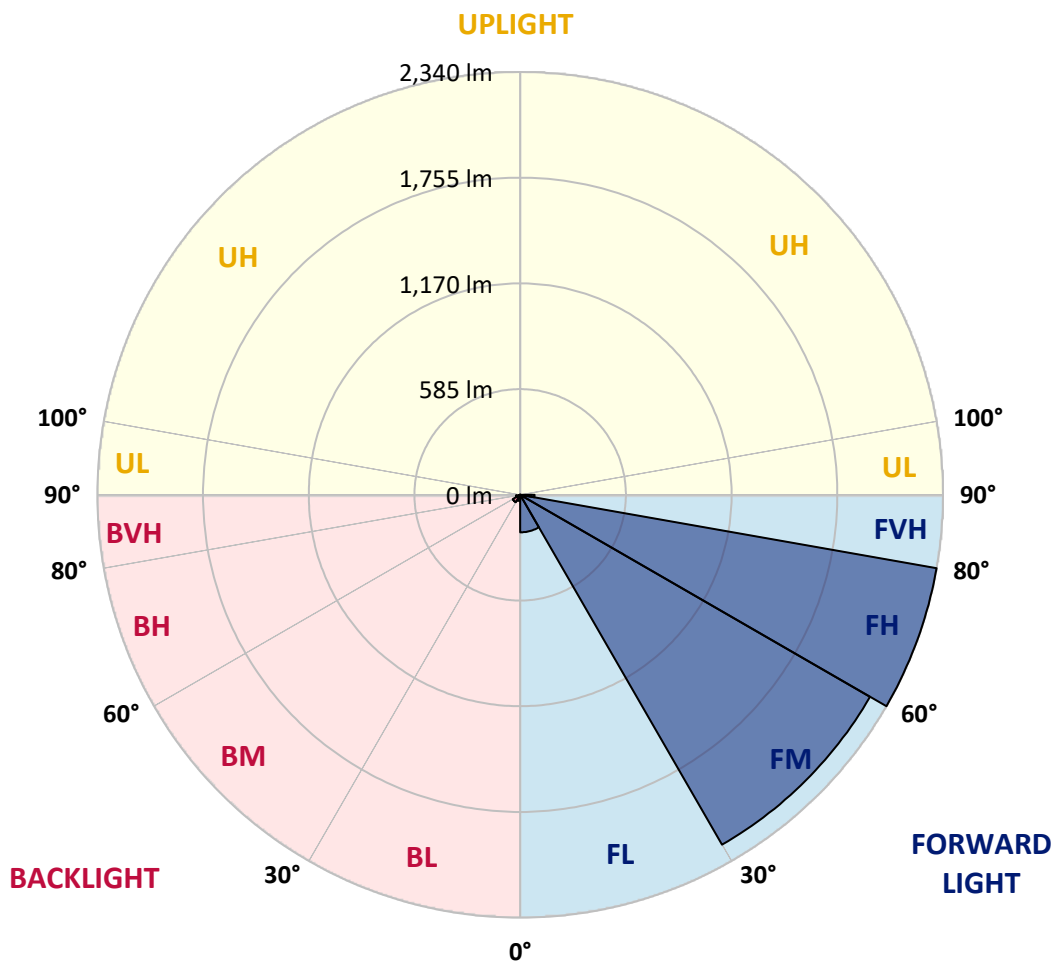
CATALOG NUMBER: EMM-F04-LED-E1-SL3-HSS-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	207.7	4.2			
FM	(30°-60°)	2235.9	45.0			
FH	(60°-80°)	2340.4	47.1			G2/5000
FVH	(80°-90°)	79.9	1.6			G1/100
BL	(0°-30°)	34.0	0.7	B0/110		
BM	(30°-60°)	47.3	1.0	B0/220		
BH	(60°-80°)	23.1	0.5	B0/110		G0/110
BVH	(80°-90°)	3.3	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-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	150.1	150.1	150.1	150.1	150.1	150.1	150.1	150.1	150.1	150.1	150.1
2.5°	189.3	188.3	184.5	184.5	178.7	174.9	170.1	165.4	165.4	164.4	163.5
5°	250.4	244.7	243.7	233.2	224.6	212.2	200.8	185.4	183.5	181.6	180.7
7.5°	318.3	317.4	308.7	296.3	279.1	256.2	233.2	208.4	204.6	202.7	198.9
10°	406.3	401.4	390.0	369.0	343.1	312.6	275.3	236.1	231.3	227.5	225.6
12.5°	490.3	481.8	475.0	448.3	415.8	370.9	325.9	269.5	265.7	261.0	253.3
15°	568.7	561.1	549.6	526.7	490.3	433.9	381.4	312.6	303.0	296.3	290.5
17.5°	629.9	625.1	611.7	585.9	546.7	497.0	433.9	356.5	348.8	340.3	329.7
20°	688.1	681.5	660.5	625.1	583.1	544.8	496.0	413.9	403.3	392.9	381.4
22.5°	743.6	736.9	702.5	644.2	599.3	583.1	565.8	478.8	462.7	454.0	442.5
25°	821.0	806.7	753.2	660.5	600.3	612.6	642.3	563.0	547.7	535.2	517.1
27.5°	925.2	906.1	822.1	684.3	604.1	645.2	730.3	665.2	649.0	634.7	614.6
30°	1042.8	1030.4	930.0	741.7	631.8	693.0	828.7	795.2	776.1	758.9	735.0
32.5°	1161.4	1144.2	1044.7	850.7	706.3	785.7	952.0	946.3	921.4	905.2	879.4
35°	1265.5	1256.9	1183.3	1029.5	876.4	948.2	1116.4	1123.0	1101.1	1083.9	1055.2
37.5°	1336.3	1336.3	1321.9	1221.6	1147.0	1200.6	1358.2	1359.2	1337.2	1298.0	1283.7
40°	1372.6	1383.0	1434.7	1453.8	1450.0	1518.8	1675.6	1658.4	1640.2	1620.1	1572.3
42.5°	1447.2	1456.7	1566.6	1698.5	1784.6	1875.3	1983.3	1977.6	1955.7	1919.3	1875.3
45°	1573.3	1585.7	1716.7	1926.0	2102.8	2231.8	2300.7	2273.9	2251.9	2217.5	2194.5
47.5°	1733.9	1757.7	1905.9	2165.0	2378.1	2591.2	2662.9	2592.2	2573.0	2546.3	2509.0
50°	1905.0	1927.9	2085.6	2381.9	2622.8	2877.0	2996.5	2877.0	2849.3	2840.7	2798.6
52.5°	2053.1	2072.2	2224.2	2549.2	2810.1	3108.4	3282.3	3124.5	3104.5	3075.8	3045.2
55°	2141.0	2156.3	2298.8	2629.4	2937.3	3316.7	3558.5	3419.9	3390.3	3378.8	3334.9
57.5°	2170.7	2186.0	2314.1	2640.0	3006.0	3506.9	3894.0	3898.8	3863.5	3822.3	3809.0
60°	2170.7	2187.9	2295.9	2614.1	3073.0	3709.5	4341.4	4739.9	4663.5	4655.9	4607.1
62.5°	2080.8	2097.1	2206.1	2534.8	3162.9	3982.9	4964.5	5668.0	5646.0	5596.3	5516.0
65°	1885.8	1895.4	2002.4	2332.3	3128.4	4234.3	5504.6	6285.5	6250.1	6152.6	6049.4
66°	1797.9	1805.6	1905.9	2216.5	3015.6	4268.7	5600.2	6362.9	6304.6	6222.4	6105.8
67.5°	1670.7	1684.1	1754.9	2001.5	2745.1	4149.2	5539.9	6308.4	6257.7	6158.3	6041.8
70°	1115.4	1105.9	1355.4	1536.0	2091.4	3380.7	4970.3	5664.2	5665.2	5618.4	5571.5
72.5°	529.5	535.2	607.9	945.3	1368.7	2258.6	3956.2	4521.0	4586.0	4501.9	4443.6
75°	380.4	389.1	433.0	578.3	816.2	1355.4	2564.5	3161.8	3163.8	3014.7	2881.8
77.5°	110.9	115.6	162.5	356.5	611.7	914.7	1472.9	1757.7	1716.7	1609.6	1509.3
80°	45.8	45.8	47.8	113.7	245.6	621.3	1030.4	1353.5	1348.6	1307.5	1248.3
82.5°	17.2	18.2	22.9	46.8	58.3	152.9	687.2	1174.7	1171.8	1113.5	1071.5
85°	1.9	1.9	5.7	20.1	22.0	28.7	137.6	518.0	515.2	518.0	454.0
87.5°	0.0	0.0	1.0	1.9	2.9	3.8	5.7	20.1	22.0	21.0	19.1
90°	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):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	150.1	150.1	150.1	150.1	150.1	150.1	150.1	150.1	150.1	150.1	150.1
2.5°	163.5	161.6	161.6	160.6	160.6	160.6	159.6	158.6	158.6	157.7	156.7
5°	178.7	176.8	175.8	173.9	173.0	172.0	170.1	169.2	167.3	166.3	165.4
7.5°	196.9	193.1	192.1	189.3	186.4	184.5	182.6	179.7	177.7	173.9	173.0
10°	219.9	215.0	211.2	207.4	204.6	199.8	196.9	193.1	189.3	186.4	183.5
12.5°	249.4	242.8	237.1	233.2	226.5	220.8	215.0	212.2	204.6	200.8	195.9
15°	282.0	274.4	267.6	260.0	255.3	245.6	238.0	229.4	225.6	218.9	211.2
17.5°	324.0	311.6	301.1	293.5	283.9	274.4	265.7	257.2	245.6	238.0	228.4
20°	369.0	358.4	344.1	330.8	319.3	307.7	295.4	283.9	273.3	261.0	249.4
22.5°	426.3	411.0	393.8	380.4	365.1	352.7	335.5	320.2	303.0	286.7	273.3
25°	498.9	478.8	462.7	443.5	425.4	406.3	385.2	366.0	344.1	328.8	305.8
27.5°	588.8	569.7	547.7	522.9	504.7	476.0	448.3	424.3	398.6	374.7	348.8
30°	703.5	675.8	652.9	628.9	592.6	564.9	532.4	499.8	464.6	440.6	401.4
32.5°	841.2	811.5	777.1	742.6	709.3	670.0	629.9	589.7	550.5	506.6	466.5
35°	1009.3	974.0	934.8	897.6	845.9	803.9	753.2	697.8	653.8	603.1	552.4
37.5°	1232.0	1173.7	1139.3	1100.1	1030.4	973.1	916.7	861.2	783.8	730.3	658.6
40°	1511.2	1476.7	1420.3	1357.3	1294.2	1218.7	1142.2	1068.6	978.8	904.2	821.0
42.5°	1839.0	1788.4	1731.0	1640.2	1576.1	1487.3	1400.3	1302.8	1192.8	1097.3	999.8
45°	2146.8	2086.6	2042.6	1951.8	1884.9	1779.7	1674.6	1571.3	1444.2	1321.0	1208.2
47.5°	2479.4	2429.7	2357.1	2283.5	2215.6	2097.1	1983.3	1858.1	1724.3	1578.1	1431.8
50°	2771.9	2732.7	2683.0	2594.1	2518.6	2419.2	2285.4	2148.7	1979.5	1834.2	1667.9
52.5°	3020.4	2989.8	2920.1	2856.9	2789.1	2695.4	2575.9	2444.9	2262.4	2102.8	1913.5
55°	3313.9	3291.8	3230.7	3191.5	3131.3	3041.4	2929.6	2808.2	2615.2	2441.1	2227.1
57.5°	3794.6	3777.4	3723.9	3707.6	3648.4	3570.0	3432.4	3302.4	3076.8	2860.8	2616.1
60°	4590.8	4556.4	4478.0	4437.9	4312.6	4207.5	4028.8	3850.1	3577.6	3302.4	3007.9
62.5°	5443.4	5346.9	5197.7	5069.7	4891.9	4709.3	4470.4	4197.0	3877.7	3550.9	3212.5
65°	5903.2	5738.8	5550.5	5346.9	5116.5	4848.0	4546.9	4219.0	3875.8	3530.8	3173.3
66°	5955.7	5770.3	5570.5	5344.0	5087.8	4802.0	4496.2	4152.1	3795.6	3459.1	3101.6
67.5°	5889.8	5695.8	5484.5	5233.1	4955.9	4659.7	4338.5	3981.0	3637.9	3296.7	2948.7
70°	5428.1	5235.0	5046.7	4782.0	4486.7	4188.4	3884.5	3485.0	3159.9	2846.5	2536.7
72.5°	4334.7	4203.7	4017.3	3790.8	3503.1	3153.3	2900.0	2542.5	2260.5	1956.6	1716.7
75°	2708.8	2524.4	2293.9	2005.3	1785.5	1501.6	1353.5	1082.0	921.4	780.9	645.2
77.5°	1385.0	1246.4	1084.8	922.4	766.6	611.7	473.1	334.6	225.6	156.7	116.6
80°	1144.2	1021.8	888.0	739.8	602.2	467.4	336.5	229.4	146.3	95.6	74.6
82.5°	945.3	842.1	722.6	585.0	465.5	367.0	255.3	166.3	103.2	67.0	52.6
85°	402.4	365.1	282.0	223.7	168.2	124.3	87.0	58.3	41.1	33.5	30.6
87.5°	17.2	19.1	18.2	14.4	10.6	10.6	9.6	7.6	7.6	7.6	7.6
90°	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):

	80°	81°	82°	83°	84°	85°	95°	105°	115°	125°	135°
0°	150.1	150.1	150.1	150.1	150.1	150.1	150.1	150.1	150.1	150.1	150.1
2.5°	156.7	155.8	154.8	154.8	153.9	152.9	147.2	142.5	136.7	132.9	129.1
5°	163.5	162.5	160.6	159.6	157.7	156.7	144.4	133.8	125.2	118.5	113.7
7.5°	170.1	169.2	166.3	163.5	162.5	160.6	140.5	127.2	115.6	108.0	103.2
10°	178.7	175.8	173.0	169.2	166.3	163.5	136.7	119.4	107.1	100.3	95.6
12.5°	191.2	186.4	181.6	176.8	173.0	168.2	134.8	112.8	100.3	92.7	88.0
15°	205.5	198.9	193.1	187.3	180.7	175.8	131.0	107.1	94.6	87.0	81.2
17.5°	218.9	211.2	202.7	194.0	187.3	180.7	127.2	101.3	88.9	81.2	75.5
20°	238.0	226.5	216.0	205.5	195.9	187.3	121.3	95.6	84.1	75.5	69.8
22.5°	259.1	245.6	232.2	218.0	205.5	194.0	116.6	90.8	79.3	70.8	64.0
25°	285.8	269.5	251.3	233.2	218.9	203.6	111.8	86.1	74.6	65.9	59.2
27.5°	323.1	300.1	280.1	257.2	235.1	218.0	108.0	82.2	69.8	61.1	54.5
30°	373.7	340.3	308.7	283.9	258.1	233.2	104.2	77.4	65.9	56.4	48.8
32.5°	430.1	391.0	354.6	317.4	284.8	256.2	100.3	73.6	61.1	51.6	44.9
35°	499.8	450.2	401.4	358.4	319.3	281.0	96.5	69.8	57.3	46.8	40.1
37.5°	600.3	538.2	474.1	418.6	367.9	317.4	93.7	65.9	52.6	42.0	35.4
40°	737.9	657.6	579.3	503.8	437.7	374.7	89.9	62.1	48.8	38.2	31.6
42.5°	887.0	789.5	686.2	601.2	510.4	431.1	86.1	58.3	44.9	34.4	27.7
45°	1072.5	951.0	825.9	710.2	599.3	497.0	82.2	54.5	40.1	30.6	23.9
47.5°	1275.1	1120.2	978.8	833.5	701.6	579.3	77.4	51.6	36.3	26.7	21.0
50°	1483.5	1320.0	1141.2	975.9	819.1	661.4	72.7	46.8	32.5	23.9	17.2
52.5°	1708.0	1515.0	1332.5	1126.9	944.4	769.5	67.9	43.0	29.7	21.0	14.4
55°	1993.9	1777.8	1563.7	1333.4	1113.5	894.6	63.1	38.2	25.8	18.2	11.5
57.5°	2353.3	2097.1	1834.2	1574.2	1307.5	1059.0	59.2	33.5	22.0	15.3	9.6
60°	2692.6	2393.4	2075.1	1775.9	1474.8	1185.2	53.5	29.7	19.1	12.5	9.6
62.5°	2868.4	2527.2	2184.1	1854.3	1533.1	1230.1	47.8	24.8	16.3	10.6	8.6
65°	2825.4	2477.5	2144.9	1812.2	1497.7	1201.5	42.0	22.0	14.4	9.6	8.6
66°	2763.2	2419.2	2084.6	1768.3	1468.2	1170.9	39.2	21.0	13.4	9.6	7.6
67.5°	2627.5	2295.0	1975.7	1681.3	1386.9	1112.6	35.4	19.1	12.5	8.6	7.6
70°	2244.3	1942.2	1687.0	1425.1	1185.2	937.7	28.7	16.3	10.6	7.6	7.6
72.5°	1485.4	1279.9	1109.7	954.9	798.1	619.4	23.9	13.4	8.6	7.6	6.7
75°	560.1	506.6	434.9	391.0	341.2	299.2	19.1	8.6	6.7	6.7	6.7
77.5°	99.4	91.8	81.2	74.6	68.9	63.1	15.3	5.7	5.7	6.7	6.7
80°	67.0	62.1	56.4	51.6	47.8	43.0	10.6	4.8	5.7	5.7	6.7
82.5°	47.8	44.9	42.0	38.2	35.4	31.6	6.7	4.8	5.7	5.7	5.7
85°	28.7	26.7	24.8	22.9	20.1	19.1	4.8	4.8	4.8	5.7	5.7
87.5°	7.6	6.7	7.6	7.6	5.7	6.7	3.8	3.8	3.8	4.8	4.8
90°	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):

	145°	155°	165°	175°	180°
0°	150.1	150.1	150.1	150.1	150.1
2.5°	127.2	127.2	125.2	128.1	128.1
5°	109.9	109.9	109.0	109.9	109.9
7.5°	100.3	99.4	99.4	99.4	100.3
10°	91.8	90.8	90.8	90.8	90.8
12.5°	84.1	83.1	82.2	83.1	83.1
15°	77.4	75.5	75.5	75.5	75.5
17.5°	71.7	69.8	68.9	68.9	68.9
20°	65.9	63.1	63.1	63.1	63.1
22.5°	60.2	57.3	57.3	57.3	57.3
25°	54.5	51.6	51.6	51.6	51.6
27.5°	49.7	46.8	46.8	46.8	46.8
30°	43.9	42.0	42.0	43.0	42.0
32.5°	40.1	37.3	37.3	38.2	38.2
35°	35.4	33.5	33.5	33.5	33.5
37.5°	30.6	28.7	28.7	28.7	28.7
40°	26.7	24.8	23.9	24.8	24.8
42.5°	22.9	21.0	20.1	20.1	20.1
45°	20.1	17.2	16.3	17.2	17.2
47.5°	16.3	14.4	14.4	15.3	15.3
50°	12.5	12.5	13.4	15.3	15.3
52.5°	11.5	11.5	13.4	15.3	15.3
55°	10.6	11.5	13.4	14.4	15.3
57.5°	9.6	11.5	13.4	14.4	14.4
60°	9.6	10.6	12.5	14.4	14.4
62.5°	8.6	9.6	11.5	13.4	13.4
65°	8.6	9.6	11.5	13.4	13.4
66°	8.6	9.6	11.5	13.4	13.4
67.5°	8.6	9.6	11.5	13.4	13.4
70°	8.6	9.6	11.5	12.5	12.5
72.5°	7.6	8.6	10.6	12.5	12.5
75°	7.6	8.6	10.6	12.5	12.5
77.5°	7.6	8.6	10.6	12.5	12.5
80°	7.6	8.6	10.6	11.5	12.5
82.5°	6.7	8.6	9.6	11.5	11.5
85°	6.7	7.6	9.6	10.6	11.5
87.5°	5.7	6.7	7.6	9.6	9.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)