

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: P821243

Luminaire Tested: **TT-D4-735-24VDC-RW-UPL**

Issue Date: 10/29/2020

Test Information

Test Method: LM-79-08
Report Number: P821243
REPORT IS FROM IESNA LM-79-08 TEST DATA - UPLIGHT (G2-2002-677-2) AND
Test Lab: INNOVATION CENTER
Issue Date: 10/29/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: TT-D4-735-24VDC-RW-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
3500K, 70 CRI LEDS AND RECTANGULAR DISTRIBUTION
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6554.7 lumens
Efficiency: N/A
Efficacy: 115.0 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 1.12' x H: 0.1')
IES Classification: Type IV - Short
BUG Rating: B3 - U4 - G3

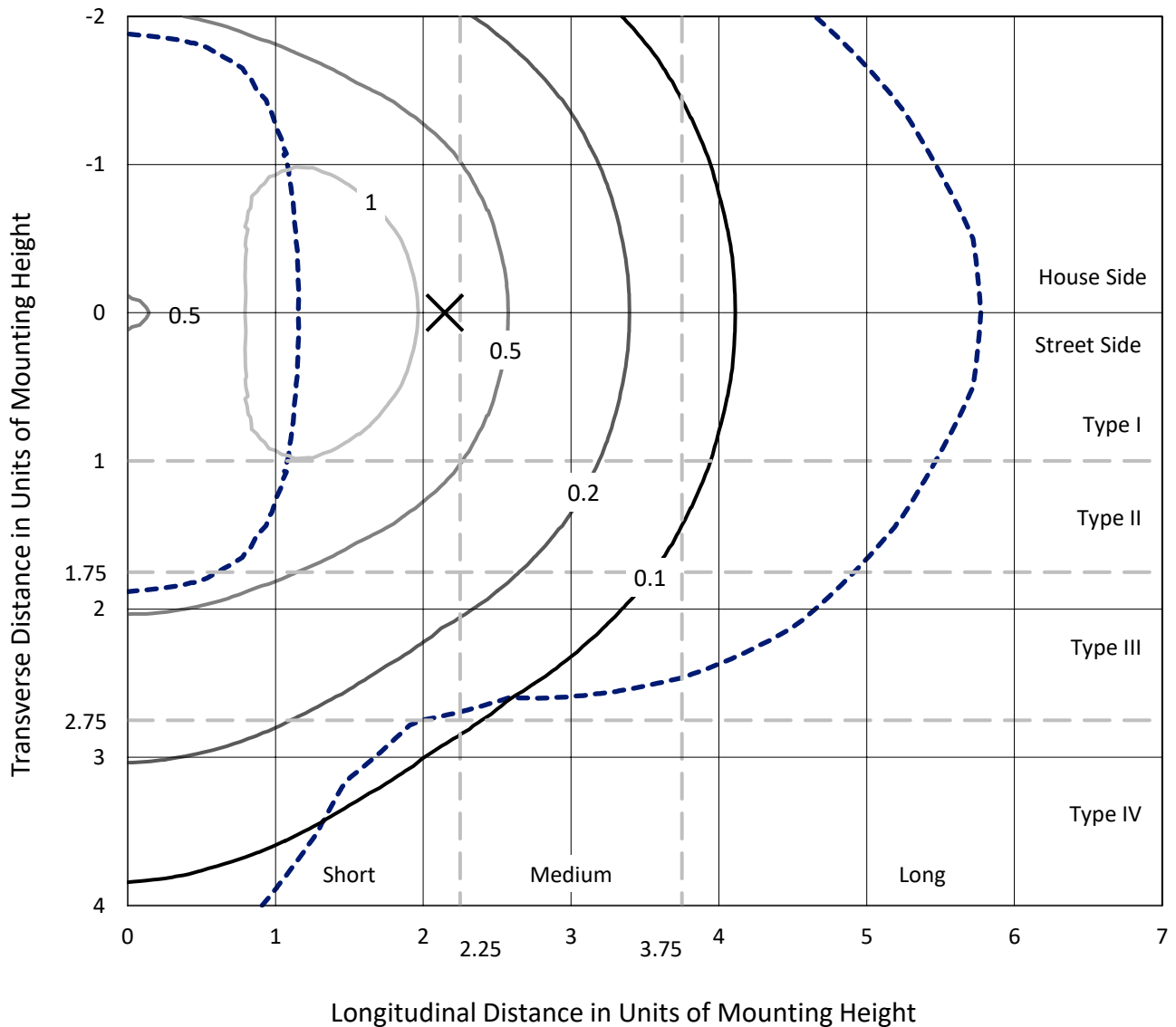
Input Watts (W): 57
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

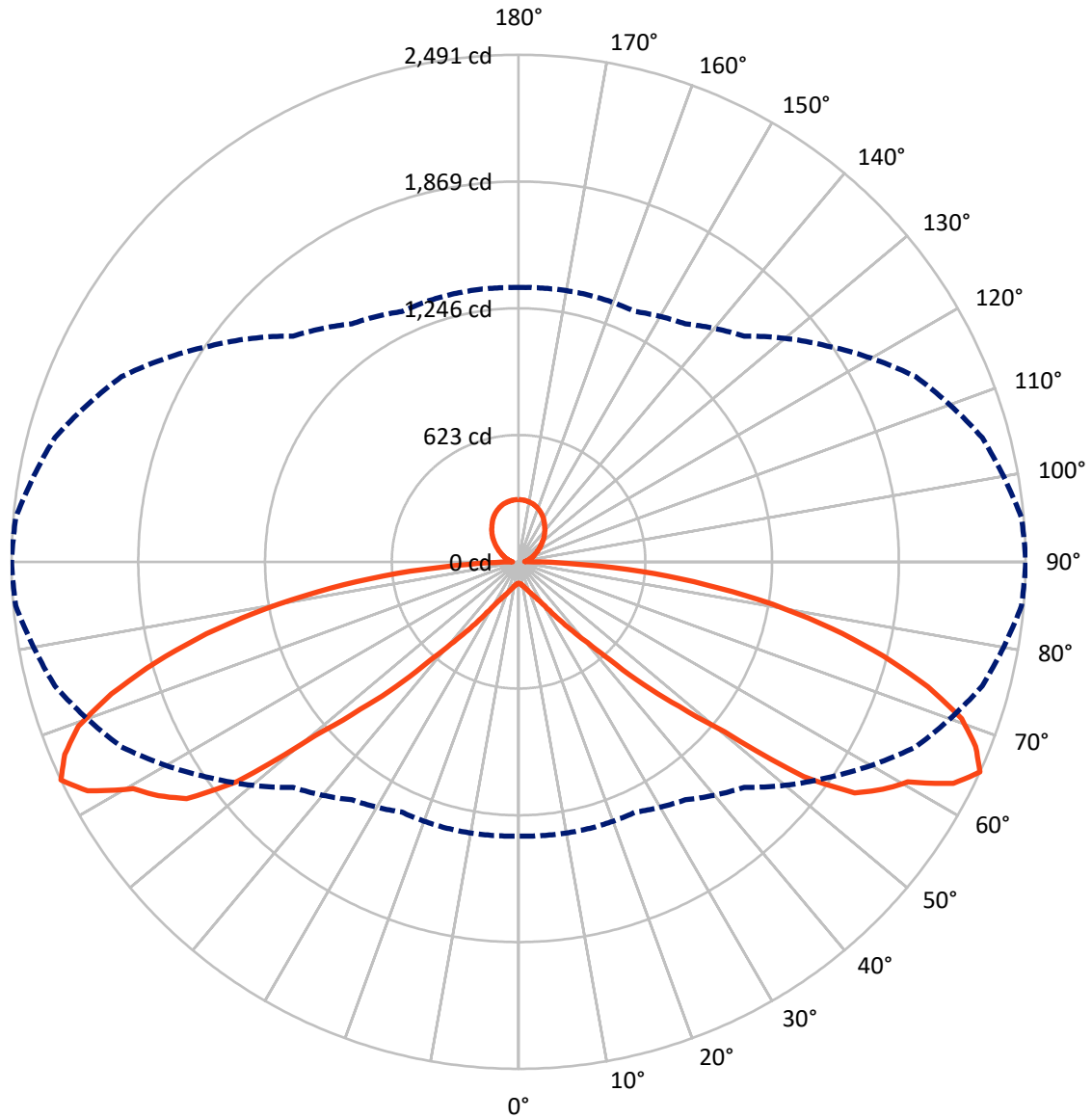
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 1.7 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 90-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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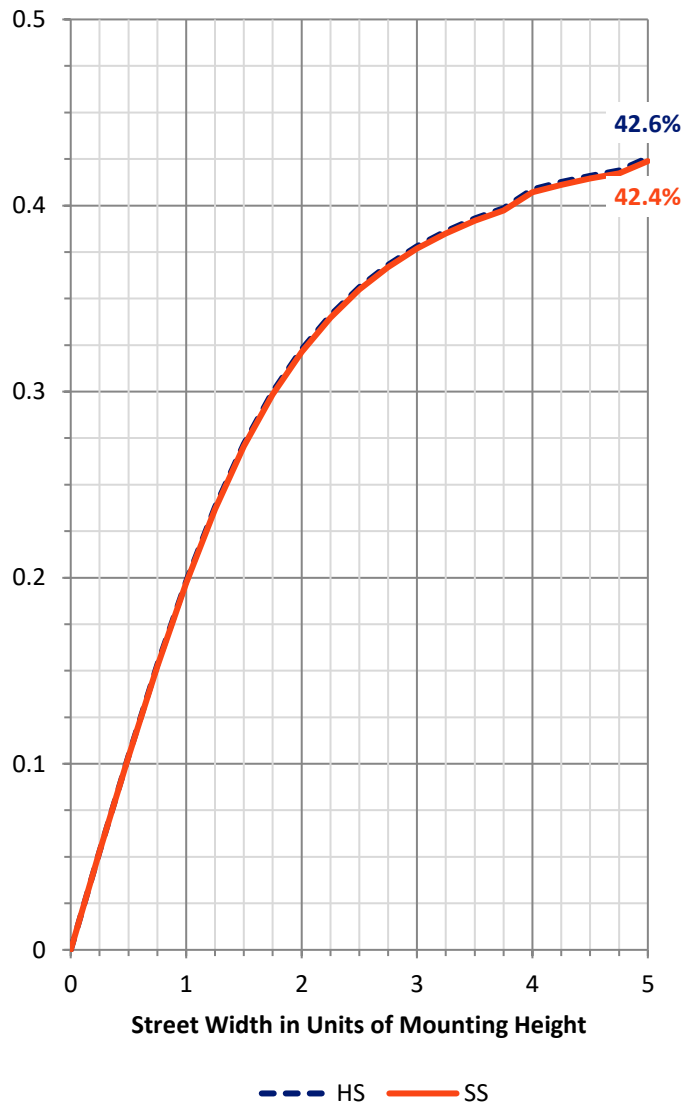
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2861.5	415.9	3277.4
	% Fixture	43.7	6.3	50.0
Street Side	Lumens	2861.5	415.9	3277.4
	% Fixture	43.7	6.3	50.0
Total	Lumens	5723.0	831.7	6554.7
	% Fixture	87.3	12.7	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	10.9	0.2
10°-20°	40.8	0.6
20°-30°	94.2	1.4
30°-40°	213.1	3.3
40°-50°	519.1	7.9
50°-60°	1167.2	17.8
60°-70°	1705.9	26.0
70°-80°	1486.4	22.7
80°-90°	485.5	7.4
90°-100°	42.6	0.7
100°-110°	66.0	1.0
110°-120°	91.9	1.4
120°-130°	119.0	1.8
130°-140°	138.7	2.1
140°-150°	140.5	2.1
150°-160°	121.9	1.9
160°-170°	82.2	1.3
170°-180°	28.9	0.4
0°-90°	5723.0	87.3
0°-180°	6554.7	100.0

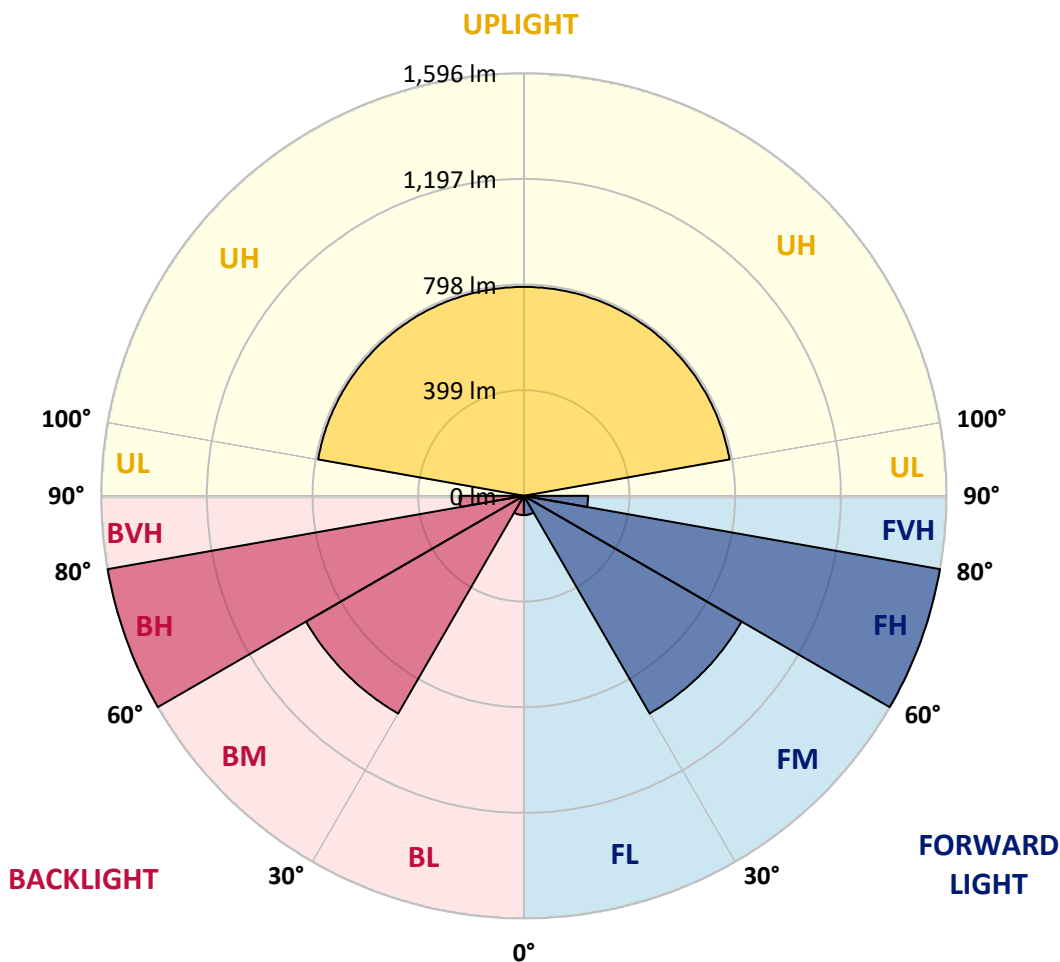


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	73.0	1.1			
FM (30°-60°)	949.7	14.5			
FH (60°-80°)	1596.1	24.4			G1/1800
FVH (80°-90°)	242.7	3.7			G3/500
BL (0°-30°)	73.0	1.1	B0/110		
BM (30°-60°)	949.7	14.5	B1/1000		
BH (60°-80°)	1596.1	24.4	B3/2500		G3/2500
BVH (80°-90°)	242.7	3.7			G3/500
UL (90°-100°)	42.6	0.7		U2/50	
UH (100°-180°)	789.1	12.0		U4/1000	

BUG Rating: B3-U4-G3
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5
2.5°	105.8	105.8	107.2	107.2	107.2	107.2	107.2	107.2	107.2	107.2	107.2
5°	109.9	109.9	109.9	109.9	111.3	111.3	109.9	109.9	109.9	109.9	109.9
7.5°	116.7	115.3	116.7	116.7	116.7	115.3	115.3	115.3	114.0	114.0	114.0
10°	123.5	123.5	124.8	123.5	123.5	122.1	122.1	122.1	120.8	120.8	120.8
12.5°	133.0	133.0	133.0	133.0	131.6	131.6	130.3	128.9	127.6	127.6	127.6
15°	145.2	143.8	143.8	142.5	141.1	139.8	138.4	138.4	137.1	137.1	137.1
17.5°	157.4	157.4	156.1	154.7	152.0	150.6	150.6	149.3	147.9	147.9	147.9
20°	172.3	172.3	171.0	168.3	165.6	164.2	162.8	162.8	161.5	161.5	161.5
22.5°	190.0	188.6	185.9	183.2	180.5	179.1	177.8	176.4	176.4	176.4	176.4
25°	209.0	207.6	206.3	202.2	198.1	196.8	194.0	194.0	192.7	194.0	194.0
27.5°	232.0	230.7	228.0	223.9	218.5	215.8	214.4	214.4	215.8	215.8	217.1
30°	260.5	257.8	255.1	249.7	244.3	240.2	240.2	241.5	245.6	248.3	248.3
32.5°	294.5	293.1	289.0	283.6	274.1	271.4	274.1	282.3	287.7	291.7	294.5
35°	333.8	332.5	327.0	317.5	310.7	309.4	317.5	331.1	348.7	354.2	356.9
37.5°	377.2	378.6	371.8	361.0	354.2	356.9	373.2	399.0	416.6	428.8	431.5
40°	431.5	434.2	426.1	413.9	407.1	417.9	443.7	473.6	504.8	519.7	523.8
42.5°	495.3	499.4	488.5	476.3	472.2	489.9	526.5	575.4	631.0	648.6	655.4
45°	574.0	576.7	563.1	552.3	549.6	580.8	643.2	724.6	812.8	853.5	860.3
47.5°	667.6	666.3	654.1	640.5	643.2	688.0	781.6	891.5	985.2	1047.6	1061.2
50°	774.8	768.0	758.5	742.3	759.9	825.0	943.1	1076.1	1233.5	1289.1	1313.6
52.5°	882.0	869.8	861.7	850.8	882.0	966.2	1131.7	1363.8	1601.2	1728.8	1754.6
55°	978.4	968.9	964.8	966.2	1015.0	1135.8	1352.9	1650.1	1879.4	1985.3	2004.2
57.5°	1073.4	1067.9	1063.9	1072.0	1149.4	1306.8	1551.0	1829.2	2017.8	2096.5	2110.1
60°	1162.9	1168.4	1165.6	1190.1	1283.7	1442.5	1654.2	1928.3	2110.1	2182.0	2196.9
62.5°	1262.0	1266.1	1266.1	1293.2	1369.2	1509.0	1724.7	2045.0	2275.6	2381.5	2397.8
65°	1347.5	1350.2	1355.6	1357.0	1427.5	1567.3	1849.6	2152.2	2358.4	2480.5	2491.4
67.5°	1411.3	1414.0	1407.2	1400.4	1454.7	1580.9	1840.1	2138.6	2321.8	2414.1	2422.2
70°	1462.8	1450.6	1431.6	1397.7	1415.3	1510.3	1761.4	2030.0	2214.6	2297.4	2309.6
72.5°	1469.6	1458.7	1399.0	1323.0	1301.3	1384.1	1622.9	1864.5	2023.2	2102.0	2103.3
75°	1428.9	1400.4	1301.3	1187.4	1146.6	1225.3	1430.3	1650.1	1777.6	1844.1	1850.9
77.5°	1291.8	1264.7	1139.9	1009.6	963.5	1031.3	1205.0	1382.8	1504.9	1570.0	1574.1
80°	1048.9	1039.4	925.5	806.0	750.4	789.8	941.7	1081.5	1180.6	1257.9	1264.7
82.5°	773.5	765.3	678.5	574.0	529.2	561.8	670.3	773.5	865.7	928.2	932.2
85°	483.1	466.8	412.5	339.2	309.4	331.1	403.0	472.2	555.0	603.9	606.6
87.5°	161.5	154.7	133.0	109.9	92.3	96.3	118.1	143.8	210.3	232.0	245.6
90°	30.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1
92.5°	34.8	34.2	34.2	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8
95°	39.4	39.4	39.4	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5
97.5°	44.6	44.6	44.6	44.2	44.2	44.2	44.2	44.2	44.2	44.2	44.2
100°	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8
102.5°	55.9	55.9	55.9	55.9	55.9	55.9	55.9	56.4	55.9	55.9	55.9
105°	62.0	62.0	62.0	62.0	62.0	62.0	62.0	62.9	62.0	62.0	62.0
107.5°	68.6	68.6	69.0	69.0	69.0	69.0	69.0	69.5	69.0	69.0	69.0
110°	75.1	75.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	83.1	83.1	84.0	84.0	84.0	84.0	84.6	84.6	84.0	84.0	84.0
115°	91.1	91.1	92.0	92.0	92.0	92.0	93.0	93.0	92.0	92.0	92.0
117.5°	100.5	100.5	101.0	101.4	101.4	101.4	102.4	102.4	101.4	101.4	101.4
120°	109.9	109.9	109.9	110.8	110.8	110.8	111.8	111.8	110.8	110.8	110.8
122.5°	120.7	120.7	121.2	121.6	121.6	121.6	122.6	122.6	122.1	122.1	121.6
125°	131.5	131.5	132.4	132.4	132.4	132.4	133.4	133.4	133.4	133.4	132.4
127.5°	143.2	143.2	144.2	144.2	144.2	144.2	145.1	145.1	145.1	145.1	144.2
130°	155.0	155.0	155.9	155.9	155.9	155.9	156.8	156.8	156.8	156.8	155.9
132.5°	167.2	167.2	167.6	167.6	167.6	168.1	168.6	168.6	168.6	168.6	168.1
135°	179.4	179.4	179.4	179.4	179.4	180.3	180.3	180.3	180.3	180.3	180.3
137.5°	191.2	190.6	191.2	190.6	191.2	191.6	191.6	191.6	191.6	191.6	191.6
140°	202.9	201.9	202.9	201.9	202.9	202.9	202.9	202.9	202.9	202.9	202.9
142.5°	213.7	213.2	213.7	212.7	213.7	213.7	213.7	213.7	213.7	213.7	213.7
145°	224.5	224.5	224.5	223.5	224.5	224.5	224.5	224.5	224.5	224.5	224.5
147.5°	235.8	235.3	235.8	234.8	235.8	235.8	235.8	235.8	235.8	235.8	235.8
150°	247.0	246.1	247.0	246.1	247.0	247.0	247.0	247.0	247.0	247.0	247.0
152.5°	256.0	255.5	256.4	255.5	256.0	256.0	256.4	256.0	256.0	256.0	256.0
155°	264.9	264.9	265.8	264.9	264.9	264.9	265.8	264.9	264.9	264.9	264.9
157.5°	272.4	272.4	273.3	272.4	272.4	272.4	273.3	272.4	272.4	272.4	272.4
160°	279.9	279.9	280.8	279.9	279.9	279.9	280.8	279.9	279.9	279.9	279.9
162.5°	286.0	286.0	286.9	286.0	286.0	286.0	286.9	286.0	286.0	286.0	286.0
165°	292.1	292.1	293.0	292.1	292.1	292.1	293.0	292.1	292.1	292.1	292.1
167.5°	295.8	295.8	296.8	295.8	295.8	295.8	296.8	295.8	295.8	295.8	295.8
170°	299.6	299.6	300.5	299.6	299.6	299.6	300.5	299.6	299.6	299.6	299.6
172.5°	302.0	302.0	302.8	302.0	302.4	302.0	302.8	302.0	302.0	302.0	302.0
175°	304.3	304.3	305.2	304.3	305.2	304.3	305.2	304.3	304.3	304.3	304.3
177.5°	305.2	305.2	305.7	305.2	305.7	305.2	305.7	305.2	305.2	305.2	305.2
180°	306.2	306.2	306.2	306.2	306.2	306.2	306.2	306.2	306.2	306.2	306.2

(END OF REPORT)