

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: P198450

Luminaire Tested: **TT-C4-LED-E1-RW-CG-MS/DIM-UPL**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198450
REPORT IS FROM IESNA LM-79-08 TEST DATA - UPLIGHT (P27139) AND DOWNLIGHT
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: TT-C4-LED-E1-RW-CG-MS/DIM-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
RECTANGULAR DISTRIBUTION WITH CLEAR GLASS LENS AND DIMMING OCCUPANCY
SENSOR
Light Source: (160) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6245.1 lumens
Efficiency: N/A
Efficacy: 82.8 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 1.12' x H: 0.1')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B3 - U4 - G3

Input Watts (W): 75.4
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

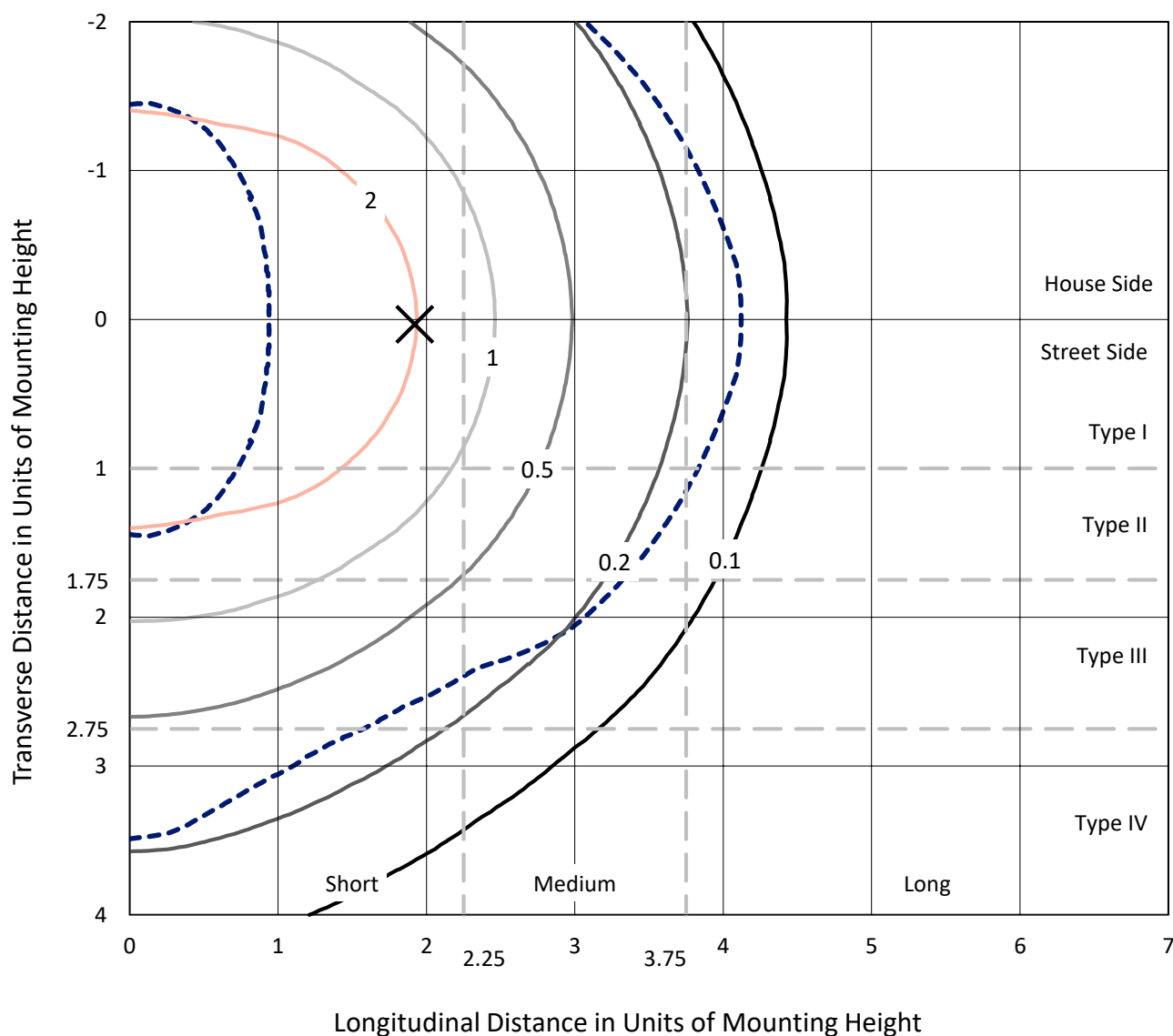


REPORT NUMBER: P198450

CATALOG NUMBER: TT-C4-LED-E1-RW-CG-MS/DIM-UPL

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

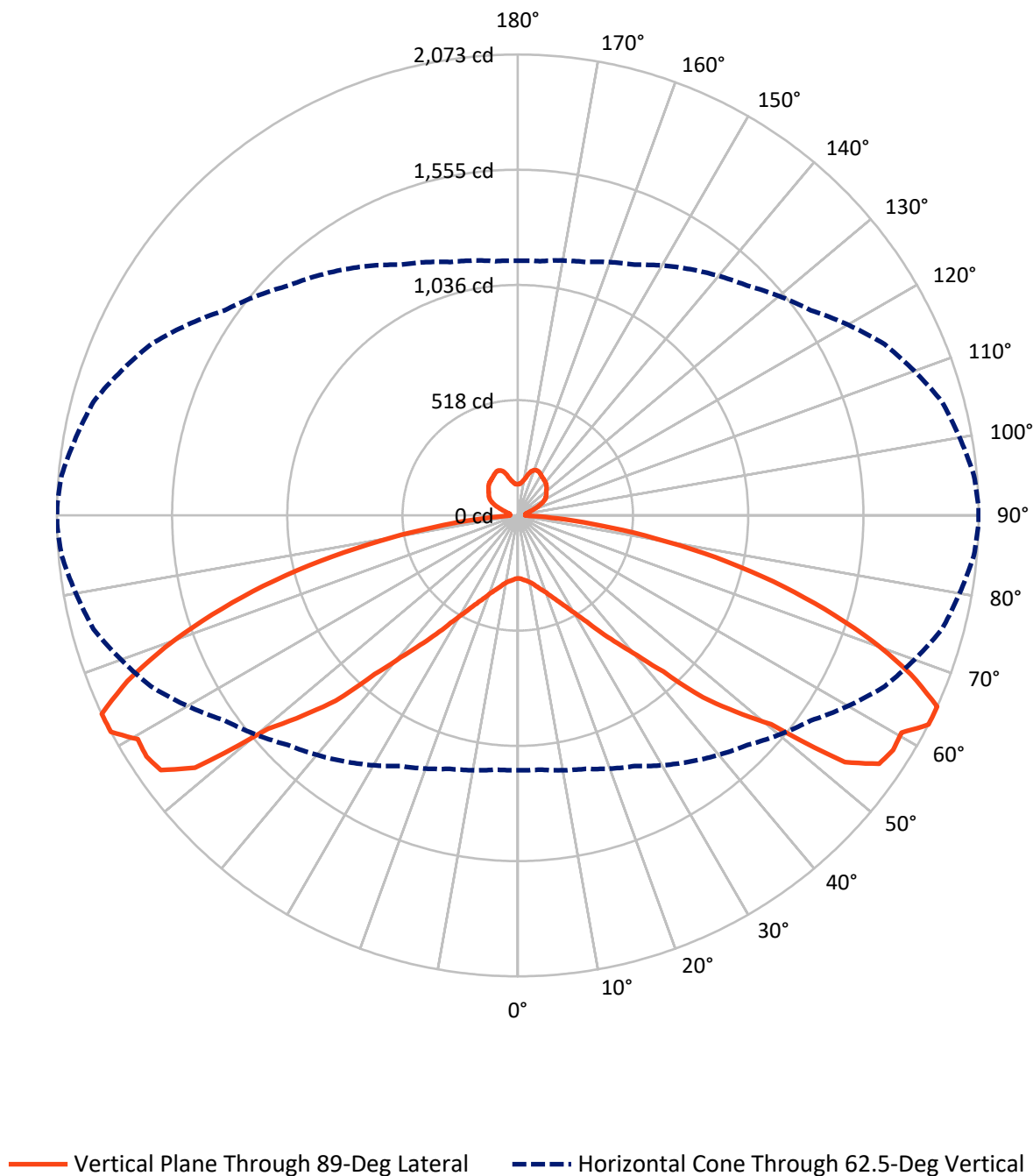


Based on 10 foot mounting height. Maximum calculated value = 4.1 fc
Type IV - Short - Semi-Cutoff

REPORT NUMBER: P198450

CATALOG NUMBER: TT-C4-LED-E1-RW-CG-MS/DIM-UPL

Luminous Intensity Polar Plot



REPORT NUMBER: P198450

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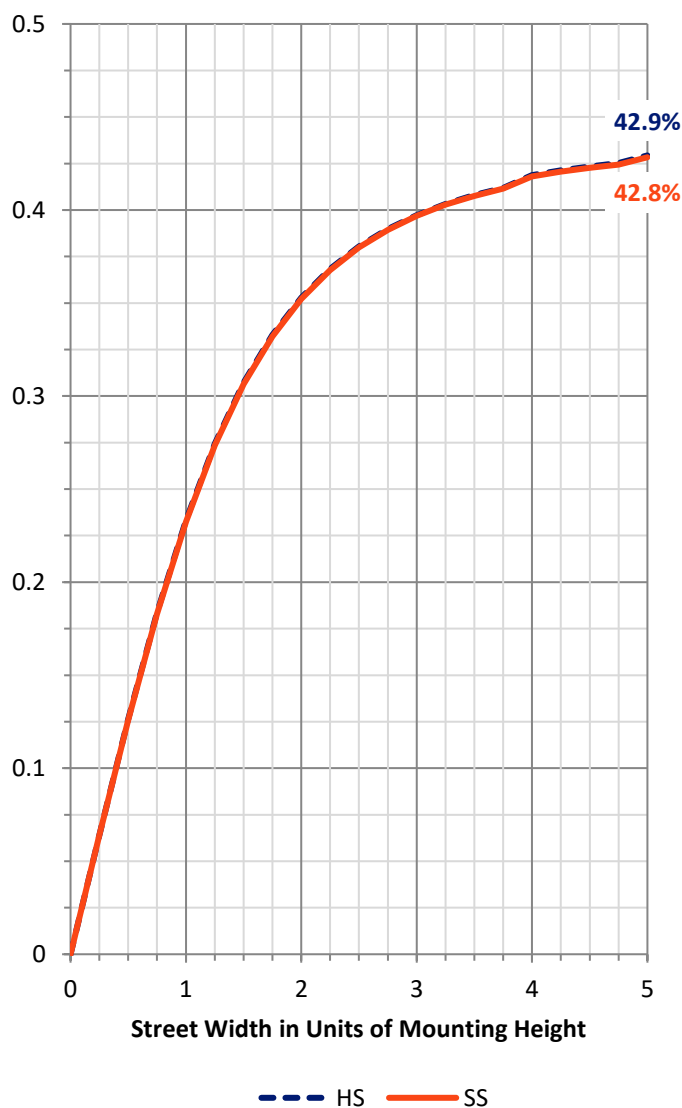
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2709.9	412.7	3122.6
	% Fixture	43.4	6.6	50.0
Street Side	Lumens	2709.9	412.7	3122.6
	% Fixture	43.4	6.6	50.0
Total	Lumens	5419.8	825.3	6245.1
	% Fixture	86.8	13.2	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.3	0.5
10°-20°	96.4	1.5
20°-30°	205.0	3.3
30°-40°	393.9	6.3
40°-50°	729.2	11.7
50°-60°	1231.9	19.7
60°-70°	1487.8	23.8
70°-80°	1024.4	16.4
80°-90°	223.0	3.6
90°-100°	38.4	0.6
100°-110°	59.5	1.0
110°-120°	119.6	1.9
120°-130°	148.9	2.4
130°-140°	153.3	2.5
140°-150°	136.3	2.2
150°-160°	103.9	1.7
160°-170°	51.8	0.8
170°-180°	13.6	0.2
0°-90°	5419.8	86.8
0°-180°	6245.1	100.0

Coefficient of Utilization



REPORT NUMBER: P198450

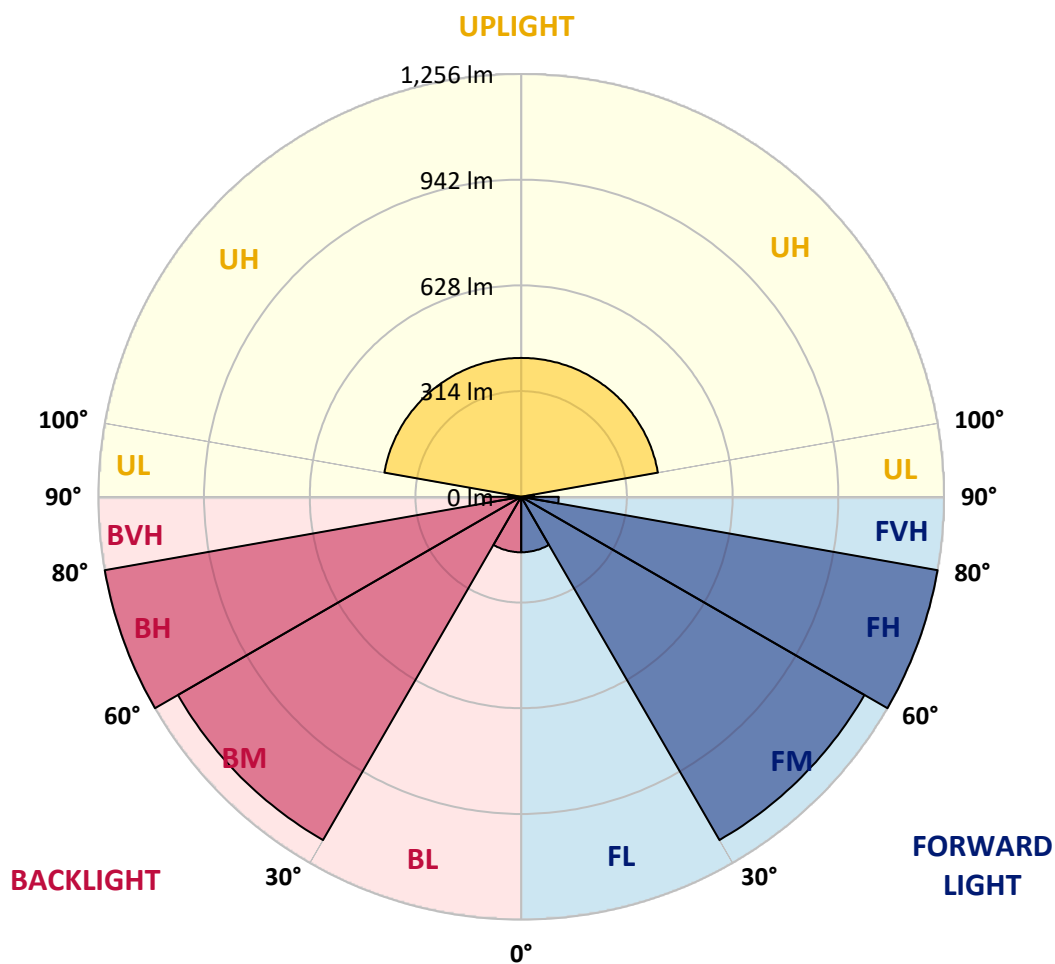
CATALOG NUMBER: TT-C4-LED-E1-RW-CG-MS/DIM-UPL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	164.8	2.6			
FM	(30°-60°)	1177.5	18.9			
FH	(60°-80°)	1256.1	20.1			G1/1800
FVH	(80°-90°)	111.5	1.8			G2/225
BL	(0°-30°)	164.8	2.6	B1/500		
BM	(30°-60°)	1177.5	18.9	B2/2500		
BH	(60°-80°)	1256.1	20.1	B3/2500		G3/2500
BVH	(80°-90°)	111.5	1.8			G2/225
UL	(90°-100°)	38.4	0.6		U2/50	
UH	(100°-180°)	412.7	6.6		U3/500	

BUG Rating: B3-U4-G3

Type IV Short



REPORT NUMBER: P198450

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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	89°
0°	283.1	283.1	283.1	283.1	283.1	283.1	283.1	283.1	283.1	283.1	283.1
2.5°	285.4	285.4	285.4	285.4	286.6	286.6	286.6	286.6	286.6	286.6	285.4
5°	290.2	289.0	290.2	291.4	291.4	292.5	292.5	292.5	292.5	291.4	291.4
7.5°	296.1	296.1	297.3	298.5	299.7	298.5	298.5	297.3	297.3	297.3	297.3
10°	306.8	305.6	306.8	307.9	306.8	306.8	306.8	306.8	306.8	306.8	305.6
12.5°	318.6	318.6	318.6	318.6	317.4	318.6	317.4	318.6	318.6	318.6	317.4
15°	335.2	335.2	335.2	334.0	332.8	332.8	332.8	332.8	332.8	332.8	334.0
17.5°	357.7	356.5	355.3	353.0	351.8	350.6	350.6	350.6	351.8	351.8	351.8
20°	383.7	381.4	379.0	377.8	376.6	374.3	373.1	374.3	375.5	375.5	371.9
22.5°	415.7	412.2	408.6	407.4	402.7	401.5	400.3	399.1	399.1	400.3	399.1
25°	445.3	446.5	443.0	437.0	435.9	433.5	429.9	431.1	429.9	431.1	429.9
27.5°	482.1	484.4	480.9	474.9	471.4	467.8	465.5	465.5	466.7	470.2	466.7
30°	523.5	524.7	521.1	516.4	510.5	505.7	504.6	510.5	510.5	515.2	512.9
32.5°	567.3	566.1	561.4	560.2	553.1	553.1	554.3	559.0	567.3	570.9	569.7
35°	620.6	613.5	612.3	607.6	601.7	601.7	608.8	620.6	636.0	645.5	646.7
37.5°	669.2	666.8	665.6	658.5	655.0	662.1	676.3	697.6	710.6	729.6	729.6
40°	718.9	724.9	718.9	711.8	715.4	726.0	749.7	777.0	806.6	826.7	826.7
42.5°	767.5	778.2	772.2	766.3	775.8	800.7	830.3	876.5	935.7	961.7	960.6
45°	819.6	827.9	822.0	823.2	843.3	874.1	930.9	1030.4	1113.3	1166.6	1167.8
47.5°	876.5	877.6	874.1	880.0	909.6	968.8	1045.8	1167.8	1249.6	1313.5	1318.3
50°	933.3	927.4	926.2	940.4	993.7	1068.3	1178.5	1296.9	1426.0	1473.4	1477.0
52.5°	984.2	977.1	981.9	1005.6	1075.4	1167.8	1305.2	1506.6	1693.7	1833.5	1842.9
55°	1032.8	1024.5	1036.4	1074.3	1166.6	1291.0	1462.7	1713.8	1872.6	1963.8	1972.0
57.5°	1074.3	1071.9	1090.8	1138.2	1251.9	1403.5	1591.8	1796.8	1914.0	1982.7	1991.0
60°	1115.7	1115.7	1140.6	1202.2	1328.9	1467.5	1616.7	1795.6	1916.4	1974.4	1982.7
62.5°	1145.3	1147.7	1179.7	1243.6	1351.4	1460.4	1608.4	1820.4	1975.6	2059.7	2072.7
65°	1161.9	1166.6	1201.0	1243.6	1341.9	1453.3	1661.7	1840.6	1968.5	2057.3	2072.7
67.5°	1164.3	1173.8	1190.3	1222.3	1305.2	1400.0	1576.5	1722.1	1828.7	1896.2	1906.9
70°	1153.6	1150.1	1148.9	1157.2	1198.6	1267.3	1422.5	1537.4	1642.8	1685.4	1693.7
72.5°	1100.3	1099.1	1057.7	1031.6	1042.3	1089.7	1227.1	1315.9	1384.6	1439.1	1445.0
75°	993.7	984.2	915.6	862.3	851.6	894.2	997.3	1062.4	1124.0	1174.9	1188.0
77.5°	829.1	805.4	735.5	672.7	652.6	684.6	761.6	806.6	851.6	910.8	910.8
80°	601.7	589.8	529.4	478.5	458.4	477.3	531.8	550.8	574.4	627.7	628.9
82.5°	388.5	375.5	335.2	303.2	285.4	297.3	319.8	328.1	348.2	380.2	379.0
85°	189.5	189.5	169.4	151.6	135.0	137.4	151.6	156.3	172.9	181.2	178.8
87.5°	47.4	52.1	46.2	42.6	37.9	37.9	42.6	42.6	52.1	52.1	49.7
90°	36.0	36.0	36.0	34.0	29.0	26.0	28.0	32.0	34.0	34.0	34.0
92.5°	40.0	39.0	38.0	34.0	29.0	27.0	28.0	32.0	35.0	36.0	36.0
95°	44.0	43.0	41.0	36.0	32.0	30.0	30.0	34.0	37.0	39.0	38.2
97.5°	42.0	42.0	40.0	37.0	35.0	33.0	33.0	34.0	36.0	36.0	36.0
100°	45.0	45.0	44.0	40.0	38.0	36.0	36.0	38.0	38.0	37.0	37.0
102.5°	51.0	51.0	49.0	46.0	44.0	42.0	43.0	44.0	42.0	41.0	41.0
105°	60.0	60.0	57.0	54.0	53.0	52.0	54.0	53.0	49.0	48.0	48.8
107.5°	72.0	72.0	70.0	67.0	66.0	68.0	68.0	66.0	60.0	59.0	59.8
110°	86.0	86.0	89.0	85.0	86.0	87.0	84.0	84.0	78.0	74.0	74.8

REPORT NUMBER: P198450

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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	89°
112.5°	101.0	102.0	108.0	107.0	110.0	107.0	102.0	105.0	100.0	95.0	94.2
115°	121.0	122.0	128.0	128.0	129.0	124.0	121.0	125.0	123.0	116.0	113.6
117.5°	140.0	141.0	144.0	141.0	141.0	136.0	138.0	141.0	139.0	133.0	129.8
120°	152.0	153.0	155.0	149.0	149.0	147.0	150.0	153.0	148.0	145.0	142.6
122.5°	161.0	162.0	164.0	154.0	155.0	158.0	159.0	162.0	155.0	153.0	150.6
125°	169.0	169.0	172.0	163.0	165.0	168.0	167.0	168.0	163.0	160.0	158.4
127.5°	177.0	177.0	181.0	171.0	176.0	178.0	176.0	175.0	173.0	166.0	163.6
130°	187.0	188.0	191.0	179.0	186.0	186.0	183.0	183.0	184.0	171.0	169.4
132.5°	198.0	199.0	201.0	186.0	193.0	195.0	190.0	192.0	192.0	179.0	176.6
135°	210.0	210.0	209.0	192.0	199.0	201.0	196.0	201.0	199.0	185.0	184.2
137.5°	221.0	219.0	213.0	197.0	205.0	208.0	203.0	210.0	204.0	191.0	190.2
140°	229.0	226.0	216.0	200.0	207.0	213.0	212.0	217.0	209.0	195.0	195.0
142.5°	235.0	231.0	218.0	201.0	208.0	218.0	220.0	223.0	211.0	198.0	198.0
145°	235.0	230.0	218.0	202.0	211.0	223.0	230.0	227.0	211.0	201.0	201.8
147.5°	230.0	227.0	219.0	207.0	216.0	229.0	239.0	229.0	212.0	204.0	205.6
150°	224.0	221.0	220.0	214.0	222.0	235.0	242.0	232.0	214.0	210.0	210.8
152.5°	216.0	214.0	221.0	220.0	230.0	241.0	242.0	235.0	219.0	215.0	215.8
155°	208.0	207.0	219.0	224.0	237.0	243.0	238.0	234.0	224.0	220.0	219.2
157.5°	203.0	203.0	216.0	224.0	234.0	235.0	228.0	229.0	226.0	222.0	219.6
160°	199.0	198.0	210.0	213.0	219.0	219.0	215.0	219.0	221.0	218.0	215.6
162.5°	185.0	184.0	193.0	193.0	198.0	198.0	196.0	200.0	204.0	207.0	207.0
165°	169.0	167.0	173.0	173.0	176.0	177.0	176.0	181.0	185.0	190.0	191.6
167.5°	154.0	152.0	156.0	155.0	159.0	159.0	160.0	165.0	168.0	172.0	173.6
170°	142.0	141.0	145.0	144.0	147.0	147.0	148.0	152.0	155.0	159.0	159.8
172.5°	137.0	135.0	139.0	138.0	141.0	141.0	141.0	145.0	146.0	149.0	150.6
175°	136.0	134.0	137.0	137.0	139.0	139.0	138.0	141.0	141.0	143.0	143.8
177.5°	137.0	136.0	139.0	138.0	140.0	139.0	138.0	140.0	140.0	141.0	141.0
180°	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0

REPORT NUMBER: P198450

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CANDELA DISTRIBUTION (continued):

	90°
0°	283.1
2.5°	285.4
5°	291.4
7.5°	297.3
10°	305.6
12.5°	318.6
15°	332.8
17.5°	353.0
20°	375.5
22.5°	399.1
25°	429.9
27.5°	470.2
30°	515.2
32.5°	568.5
35°	642.0
37.5°	729.6
40°	827.9
42.5°	961.7
45°	1170.2
47.5°	1313.5
50°	1473.4
52.5°	1837.0
55°	1970.9
57.5°	1992.2
60°	1985.1
62.5°	2072.7
65°	2070.4
67.5°	1904.5
70°	1697.3
72.5°	1454.5
75°	1192.7
77.5°	904.9
80°	653.8
82.5°	381.4
85°	181.2
87.5°	54.5
90°	34.0
92.5°	36.0
95°	38.0
97.5°	36.0
100°	37.0
102.5°	41.0
105°	49.0
107.5°	60.0
110°	75.0

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CANDELA DISTRIBUTION (continued):

	90°
112.5°	94.0
115°	113.0
117.5°	129.0
120°	142.0
122.5°	150.0
125°	158.0
127.5°	163.0
130°	169.0
132.5°	176.0
135°	184.0
137.5°	190.0
140°	195.0
142.5°	198.0
145°	202.0
147.5°	206.0
150°	211.0
152.5°	216.0
155°	219.0
157.5°	219.0
160°	215.0
162.5°	207.0
165°	192.0
167.5°	174.0
170°	160.0
172.5°	151.0
175°	144.0
177.5°	141.0
180°	140.0

(END OF REPORT)