

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: LUMIERE

Report Number: P220352 (CONVERTED FROM TYPE C PHOTOMETRY)

Luminaire Tested: **1002-[A1, P1, S1, SU1]-[RW, RI]-LED4097-M-BK-L1-UNV**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P220352 (CONVERTED FROM TYPE C PHOTOMETRY)
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29414)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMIERE
Catalog Number: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED4097-M-BK-L1-UNV
Description: LUMIERE LANTERRA 1002 LED ACCENT/PATH/SIGN LUMINAIRE, RECESSED LENS,
MEDIUM FLOOD OPTIC, BLACK HOUSING.
Light Source: (1) 4000K CCT, 97 CRI LED
Ballast/Driver: ELECTRONIC DRIVER

Summary

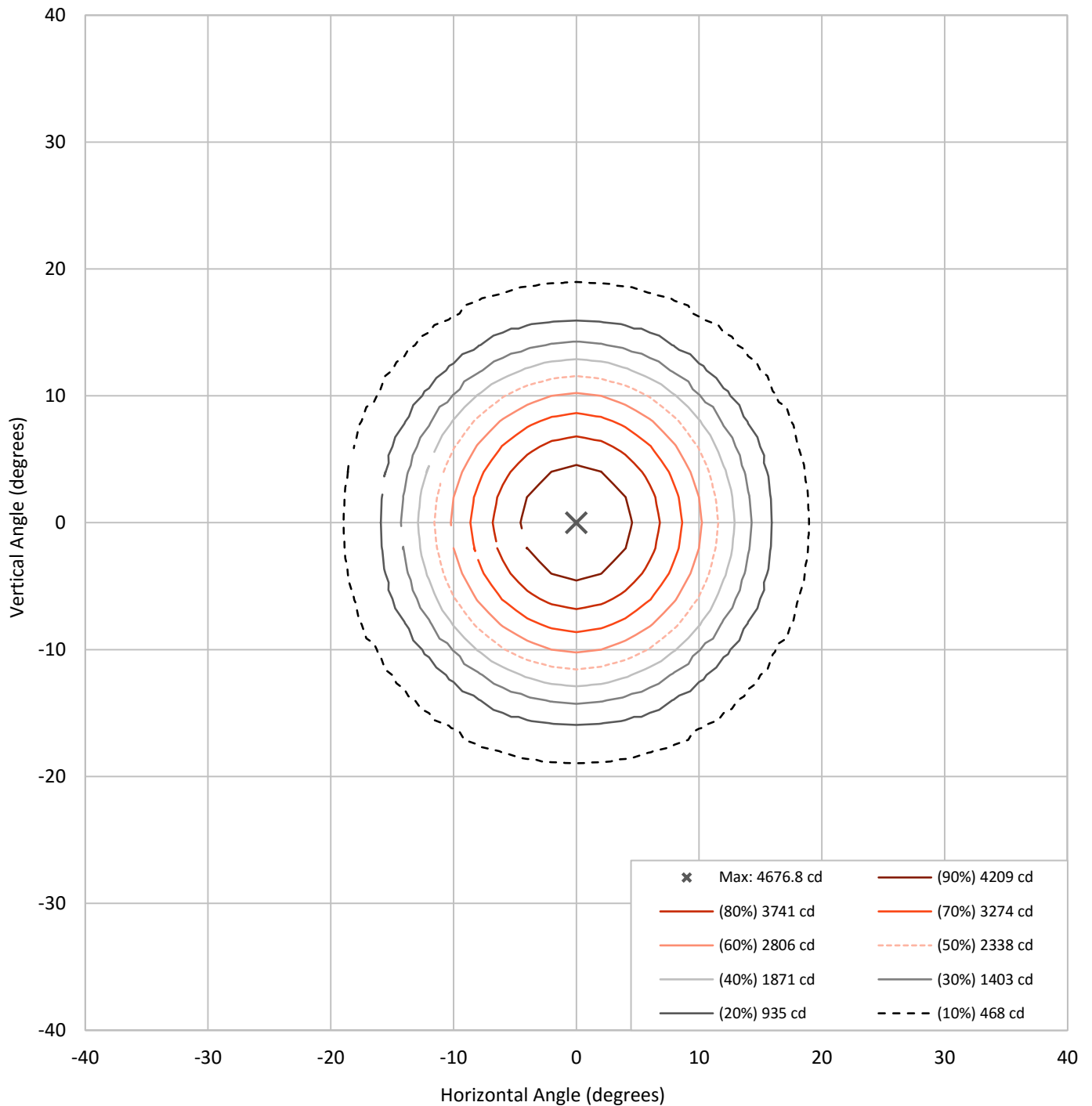
Lumens per Lamp: N/A	NEMA Type: 3H x 3V
Luminaire Lumens: 794.1 lumens	Max Intensity: 4676.8 candela
Efficiency: N/A	Max Intensity Angle: 0°H x 0°V
Efficacy: 79.4 lumens/watt	
Luminous Opening: Circular (Dia: 0.17' x H: 0')	
Beam Angle (50%): 23.1°H x 23.1°V	Field Angle (10%): 37.9°H x 37.9°V
Beam Lumens: 436.4 lumens	Field Lumens: 675.2 lumens
Beam Efficiency: 55.0%	Field Efficiency: 85.0%

Input Watts (W): 10
Input Voltage (V): 120
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: P220352 (CONVERTED FROM TYPE C PHOTOMETRY)
CATALOG NUMBER: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED4097-M-BK-L1-UNV

Iso-Candela Plot





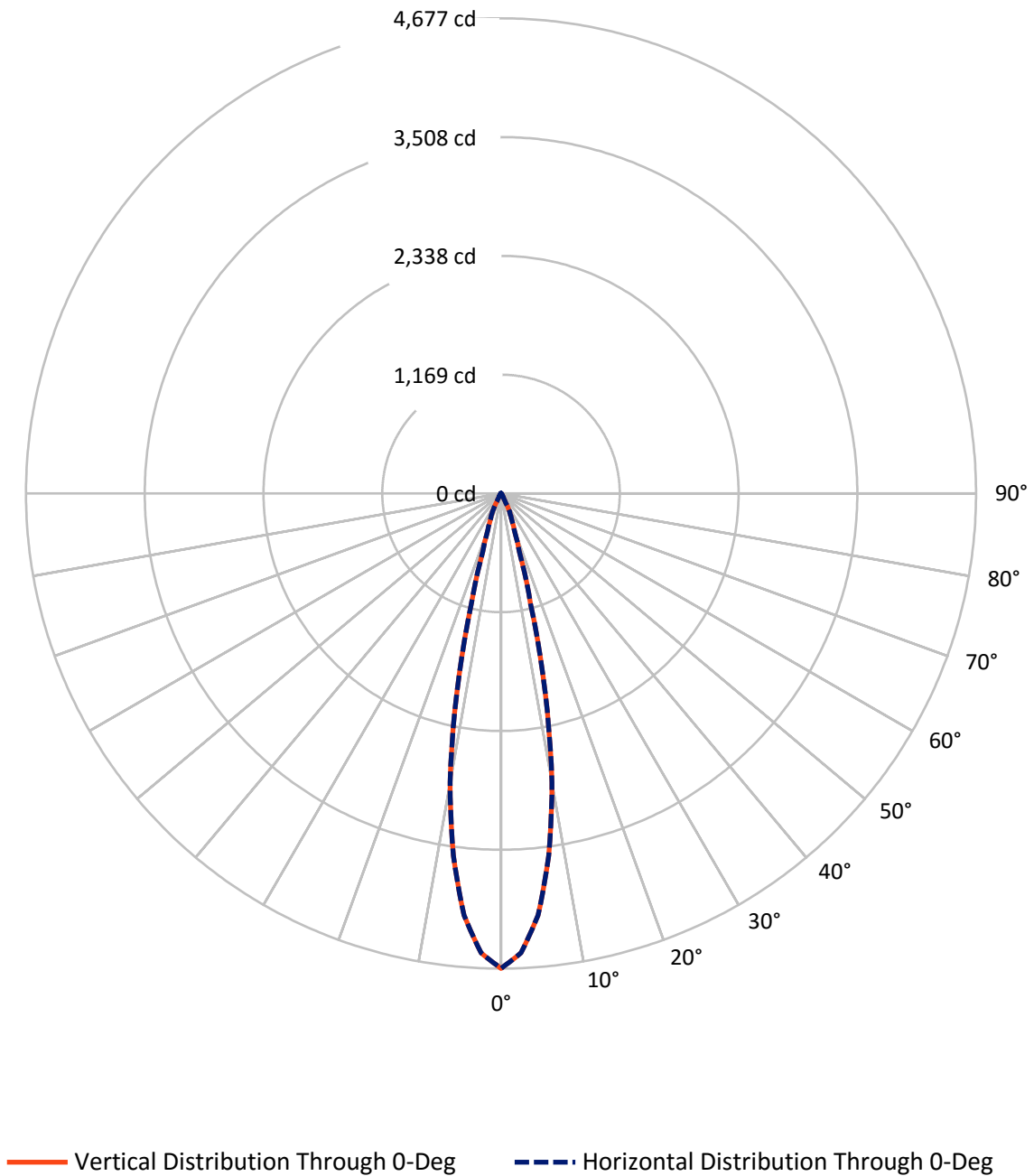
REPORT NUMBER: P220352 (CONVERTED FROM TYPE C PHOTOMETRY)
 CATALOG NUMBER: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED4097-M-BK-L1-UNV

Lumen Table

90	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
60		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
50	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40		0.0	0.0	0.0	0.1	0.2	0.4	0.5	0.5	0.4	0.2	0.1	0.0	0.0	0.0		
30	0.0	0.0	0.0	0.0	0.2	0.6	2.4	5.2	5.2	2.4	0.6	0.2	0.0	0.0	0.0	0.0	0.0
20		0.0	0.0	0.1	0.3	2.3	11.2	33.1	33.1	11.2	2.3	0.3	0.1	0.0	0.0		
10	0.0	0.0	0.0	0.1	0.5	4.8	32.3	103.9	103.9	32.3	4.8	0.5	0.1	0.0	0.0	0.0	0.0
0		0.0	0.0	0.1	0.5	4.8	32.3	103.9	103.9	32.3	4.8	0.5	0.1	0.0	0.0		
-10	0.0	0.0	0.0	0.1	0.3	2.3	11.2	33.1	33.1	11.2	2.3	0.3	0.1	0.0	0.0	0.0	0.0
-20		0.0	0.0	0.0	0.2	0.6	2.4	5.2	5.2	2.4	0.6	0.2	0.0	0.0	0.0		
-30	0.0	0.0	0.0	0.0	0.1	0.2	0.4	0.5	0.5	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0
-40		0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0		
-50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-60		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
-70	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-80		0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0

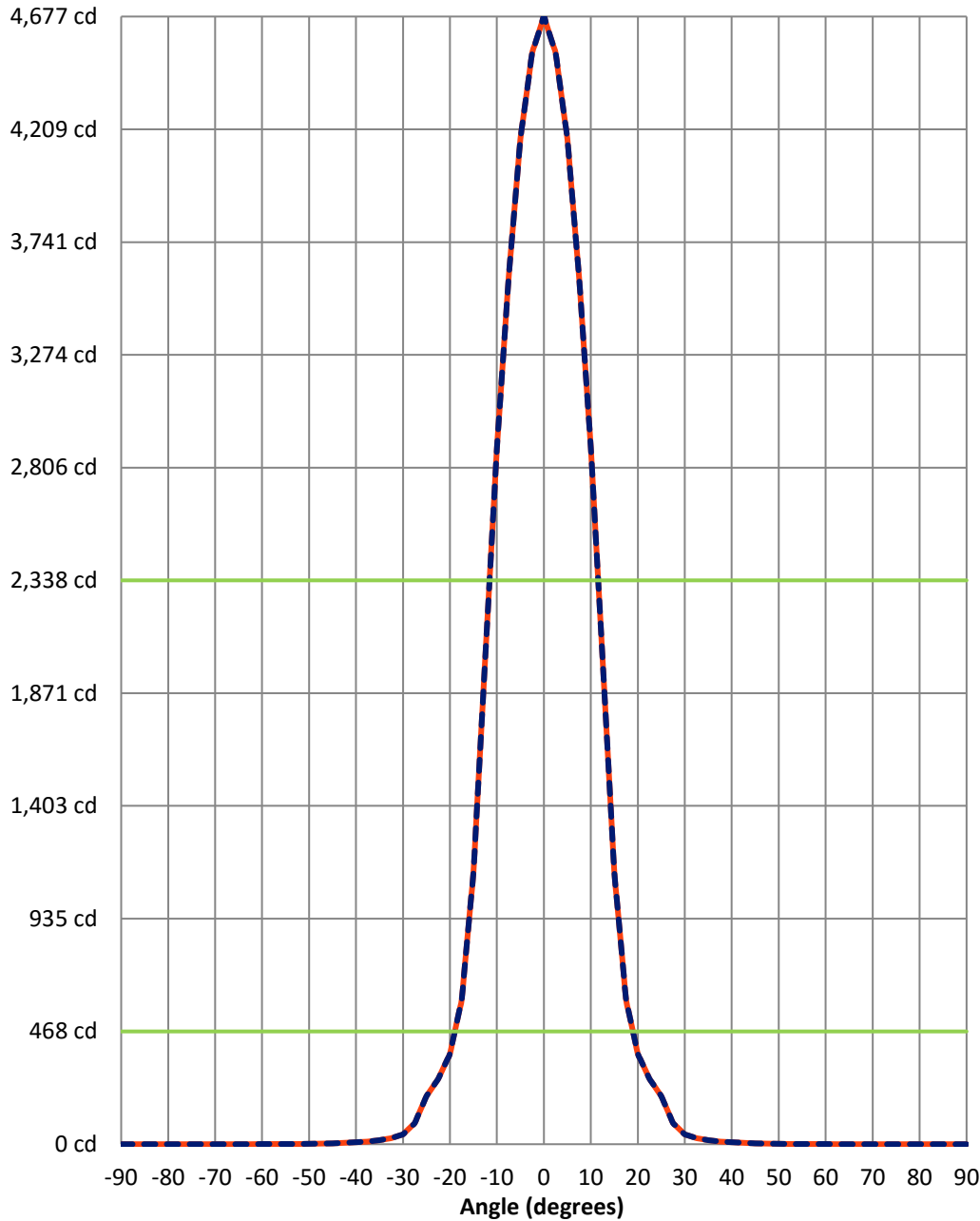
REPORT NUMBER: P220352 (CONVERTED FROM TYPE C PHOTOMETRY)
CATALOG NUMBER: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED4097-M-BK-L1-UNV

Luminous Intensity Polar Plot



REPORT NUMBER: P220352 (CONVERTED FROM TYPE C PHOTOMETRY)
CATALOG NUMBER: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED4097-M-BK-L1-UNV

Luminous Intensity Plot



Beam:
H Angle: 23.1°
V Angle: 23.1°
Lumens: 436.4
Efficiency: 55.0%

Field:
H Angle: 37.9°
V Angle: 37.9°
Lumens: 675.2
Efficiency: 85.0%

Spill:
Lumens: 118.9
Efficiency: 15.0%

— Vertical Distribution through 0-Deg
- - Horizontal Distribution through 0-Deg



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 CATALOG NUMBER: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED4097-M-BK-L1-UNV

FIELD
 BEAM

CANDELA DISTRIBUTION:

	-90°	-87.5°	-85°	-82.5°	-80°	-77.5°	-75°	-72.5°	-70°	-67.5°	-65°
90°	0	0	0	0	0	0	0	0	0	0	0
87.5°	0	0	0	0	0	0	0	0	0	0	0
85°	0	0	0	0	0	0	0	0	0	0	0
82.5°	0	0	0	0	0	0	0	0	0	0	0
80°	0	0	0	0	0	0	0	0	0	0	0
77.5°	0	0	0	0	0	0	0	0	0	0	0
75°	0	0	0	0	0	0	0	0	0	0	0
72.5°	0	0	0	0	0	0	0	0	0	0	0
70°	0	0	0	0	0	0	0	0	0	0	0
67.5°	0	0	0	0	0	0	0	0	0	0	0
65°	0	0	0	0	0	0	0	0	0	0	0
62.5°	0	0	0	0	0	0	0	0	0	0	0
60°	0	0	0	0	0	0	0	0	0	0	0
57.5°	0	0	0	0	0	0	0	0	0	0	0
55°	0	0	0	0	0	0	0	0	0	0	0
52.5°	0	0	0	0	0	0	0	0	0	0	0
50°	0	0	0	0	0	0	0	0	0	0	0
47.5°	0	0	0	0	0	0	0	0	0	0	0
45°	0	0	0	0	0	0	0	0	0	0	0
42.5°	0	0	0	0	0	0	0	0	0	0	0
40°	0	0	0	0	0	0	0	0	0	0	0
37.5°	0	0	0	0	0	0	0	0	0	0	0
35°	0	0	0	0	0	0	0	0	0	0	0
32.5°	0	0	0	0	0	0	0	0	0	0	0
30°	0	0	0	0	0	0	0	0	0	0	0
27.5°	0	0	0	0	0	0	0	0	0	0	0
25°	0	0	0	0	0	0	0	0	0	0	0
22.5°	0	0	0	0	0	0	0	0	0	0	0
20°	0	0	0	0	0	0	0	0	0	0	0
17.5°	0	0	0	0	0	0	0	0	0	0	0
15°	0	0	0	0	0	0	0	0	0	0	0
12.5°	0	0	0	0	0	0	0	0	0	0	0
10°	0	0	0	0	0	0	0	0	0	0	0
7.5°	0	0	0	0	0	0	0	0	0	0	0
5°	0	0	0	0	0	0	0	0	0	0	0
2.5°	0	0	0	0	0	0	0	0	0	0	0
0°	0	0	0	0	0	0	0	0	0	0	0
-2.5°	0	0	0	0	0	0	0	0	0	0	0
-5°	0	0	0	0	0	0	0	0	0	0	0
-7.5°	0	0	0	0	0	0	0	0	0	0	0
-10°	0	0	0	0	0	0	0	0	0	0	0
-12.5°	0	0	0	0	0	0	0	0	0	0	0
-15°	0	0	0	0	0	0	0	0	0	0	0
-17.5°	0	0	0	0	0	0	0	0	0	0	0
-20°	0	0	0	0	0	0	0	0	0	0	0



REPORT NUMBER: P220352 (CONVERTED FROM TYPE C PHOTOMETRY)
 CATALOG NUMBER: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED4097-M-BK-L1-UNV

CANDELA DISTRIBUTION (continued):

	-90°	-87.5°	-85°	-82.5°	-80°	-77.5°	-75°	-72.5°	-70°	-67.5°	-65°
-22.5°	0	0	0	0	0	0	0	0	0	0	0
-25°	0	0	0	0	0	0	0	0	0	0	0
-27.5°	0	0	0	0	0	0	0	0	0	0	0
-30°	0	0	0	0	0	0	0	0	0	0	0
-32.5°	0	0	0	0	0	0	0	0	0	0	0
-35°	0	0	0	0	0	0	0	0	0	0	0
-37.5°	0	0	0	0	0	0	0	0	0	0	0
-40°	0	0	0	0	0	0	0	0	0	0	0
-42.5°	0	0	0	0	0	0	0	0	0	0	0
-45°	0	0	0	0	0	0	0	0	0	0	0
-47.5°	0	0	0	0	0	0	0	0	0	0	0
-50°	0	0	0	0	0	0	0	0	0	0	0
-52.5°	0	0	0	0	0	0	0	0	0	0	0
-55°	0	0	0	0	0	0	0	0	0	0	0
-57.5°	0	0	0	0	0	0	0	0	0	0	0
-60°	0	0	0	0	0	0	0	0	0	0	0
-62.5°	0	0	0	0	0	0	0	0	0	0	0
-65°	0	0	0	0	0	0	0	0	0	0	0
-67.5°	0	0	0	0	0	0	0	0	0	0	0
-70°	0	0	0	0	0	0	0	0	0	0	0
-72.5°	0	0	0	0	0	0	0	0	0	0	0
-75°	0	0	0	0	0	0	0	0	0	0	0
-77.5°	0	0	0	0	0	0	0	0	0	0	0
-80°	0	0	0	0	0	0	0	0	0	0	0
-82.5°	0	0	0	0	0	0	0	0	0	0	0
-85°	0	0	0	0	0	0	0	0	0	0	0
-87.5°	0	0	0	0	0	0	0	0	0	0	0
-90°	0	0	0	0	0	0	0	0	0	0	0



REPORT NUMBER: P220352 (CONVERTED FROM TYPE C PHOTOMETRY)
 CATALOG NUMBER: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED4097-M-BK-L1-UNV

CANDELA DISTRIBUTION (continued):

	-62.5°	-60°	-57.5°	-55°	-52.5°	-50°	-47.5°	-45°	-42.5°	-40°	-37.5°
90°	0	0	0	0	0	0	0	0	0	0	0
87.5°	0	0	0	0	0	0	0	0	0	0	0
85°	0	0	0	0	0	0	0	0	0	0	0
82.5°	0	0	0	0	0	0	0	0	0	0	0
80°	0	0	0	0	0	0	0	0	0	0	0
77.5°	0	0	0	0	0	0	0	0	0	0	0
75°	0	0	0	0	0	0	0	0	0	0	0
72.5°	0	0	0	0	0	0	0	0	0	0	0
70°	0	0	0	0	0	0	0	0	0	0	0
67.5°	0	0	0	0	0	0	0	0	0	0	0
65°	0	0	0	0	0	0	0	0	0	0	0
62.5°	0	0	0	0	0	0	0	0	0	0	0
60°	0	0	0	0	0	0	0	0	0	0	0
57.5°	0	0	0	0	0	0	0	0	0	0	0
55°	0	0	0	0	0	0	0	0	0	0	0
52.5°	0	0	0	0	0	0	0	0	0	0	0
50°	0	0	0	0	0	0	0	0	0	1	1
47.5°	0	0	0	0	0	0	0	0	1	1	1
45°	0	0	0	0	0	0	0	1	1	1	1
42.5°	0	0	0	0	0	0	1	1	1	1	1
40°	0	0	0	0	0	1	1	1	1	1	1
37.5°	0	0	0	0	0	1	1	1	1	1	1
35°	0	0	0	0	1	1	1	1	1	1	2
32.5°	0	0	0	0	1	1	1	1	1	2	2
30°	0	0	0	1	1	1	1	1	2	2	3
27.5°	0	0	0	1	1	1	1	1	2	3	3
25°	0	0	1	1	1	1	1	2	2	3	4
22.5°	0	0	1	1	1	1	1	2	3	3	5
20°	0	0	1	1	1	1	1	2	3	4	7
17.5°	0	0	1	1	1	1	2	2	3	5	7
15°	0	0	1	1	1	1	2	3	4	6	8
12.5°	0	1	1	1	1	1	2	3	4	7	9
10°	0	1	1	1	1	1	2	3	5	7	10
7.5°	0	1	1	1	1	2	2	3	5	8	10
5°	0	1	1	1	1	2	2	3	6	8	11
2.5°	0	1	1	1	1	2	2	3	6	8	11
0°	0	1	1	1	1	2	3	3	6	8	11
-2.5°	0	1	1	1	1	2	2	3	6	8	11
-5°	0	1	1	1	1	2	2	3	6	8	11
-7.5°	0	1	1	1	1	2	2	3	5	8	10
-10°	0	1	1	1	1	1	2	3	5	7	10
-12.5°	0	1	1	1	1	1	2	3	4	7	9
-15°	0	0	1	1	1	1	2	3	4	6	8
-17.5°	0	0	1	1	1	1	2	2	3	5	7
-20°	0	0	1	1	1	1	1	2	3	4	7



REPORT NUMBER: P220352 (CONVERTED FROM TYPE C PHOTOMETRY)
 CATALOG NUMBER: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED4097-M-BK-L1-UNV

CANDELA DISTRIBUTION (continued):

	-62.5°	-60°	-57.5°	-55°	-52.5°	-50°	-47.5°	-45°	-42.5°	-40°	-37.5°
-22.5°	0	0	1	1	1	1	1	2	3	3	5
-25°	0	0	1	1	1	1	1	2	2	3	4
-27.5°	0	0	0	1	1	1	1	1	2	3	3
-30°	0	0	0	1	1	1	1	1	2	2	3
-32.5°	0	0	0	0	1	1	1	1	1	2	2
-35°	0	0	0	0	1	1	1	1	1	1	2
-37.5°	0	0	0	0	0	1	1	1	1	1	1
-40°	0	0	0	0	0	1	1	1	1	1	1
-42.5°	0	0	0	0	0	0	1	1	1	1	1
-45°	0	0	0	0	0	0	0	1	1	1	1
-47.5°	0	0	0	0	0	0	0	0	1	1	1
-50°	0	0	0	0	0	0	0	0	0	1	1
-52.5°	0	0	0	0	0	0	0	0	0	0	0
-55°	0	0	0	0	0	0	0	0	0	0	0
-57.5°	0	0	0	0	0	0	0	0	0	0	0
-60°	0	0	0	0	0	0	0	0	0	0	0
-62.5°	0	0	0	0	0	0	0	0	0	0	0
-65°	0	0	0	0	0	0	0	0	0	0	0
-67.5°	0	0	0	0	0	0	0	0	0	0	0
-70°	0	0	0	0	0	0	0	0	0	0	0
-72.5°	0	0	0	0	0	0	0	0	0	0	0
-75°	0	0	0	0	0	0	0	0	0	0	0
-77.5°	0	0	0	0	0	0	0	0	0	0	0
-80°	0	0	0	0	0	0	0	0	0	0	0
-82.5°	0	0	0	0	0	0	0	0	0	0	0
-85°	0	0	0	0	0	0	0	0	0	0	0
-87.5°	0	0	0	0	0	0	0	0	0	0	0
-90°	0	0	0	0	0	0	0	0	0	0	0



REPORT NUMBER: P220352 (CONVERTED FROM TYPE C PHOTOMETRY)
 CATALOG NUMBER: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED4097-M-BK-L1-UNV

CANDELA DISTRIBUTION (continued):

	-35°	-32.5°	-30°	-27.5°	-25°	-22.5°	-20°	-17.5°	-15°	-12.5°	-10°
90°	0	0	0	0	0	0	0	0	0	0	0
87.5°	0	0	0	0	0	0	0	0	0	0	0
85°	0	0	0	0	0	0	0	0	0	0	0
82.5°	0	0	0	0	0	0	0	0	0	0	0
80°	0	0	0	0	0	0	0	0	0	0	0
77.5°	0	0	0	0	0	0	0	0	0	0	0
75°	0	0	0	0	0	0	0	0	0	0	0
72.5°	0	0	0	0	0	0	0	0	0	0	0
70°	0	0	0	0	0	0	0	0	0	0	0
67.5°	0	0	0	0	0	0	0	0	0	0	0
65°	0	0	0	0	0	0	0	0	0	0	0
62.5°	0	0	0	0	0	0	0	0	0	0	0
60°	0	0	0	0	0	0	0	0	0	1	1
57.5°	0	0	0	0	1	1	1	1	1	1	1
55°	0	0	1	1	1	1	1	1	1	1	1
52.5°	1	1	1	1	1	1	1	1	1	1	1
50°	1	1	1	1	1	1	1	1	1	1	1
47.5°	1	1	1	1	1	1	1	2	2	2	2
45°	1	1	1	1	2	2	2	2	3	3	3
42.5°	1	1	2	2	2	3	3	3	4	4	5
40°	1	2	2	3	3	3	4	5	6	7	7
37.5°	2	2	3	3	4	5	7	7	8	9	10
35°	2	3	3	5	6	7	9	10	11	12	14
32.5°	3	4	5	7	8	9	11	13	16	18	21
30°	3	5	7	8	10	12	15	19	23	26	31
27.5°	5	7	8	10	13	17	22	27	34	41	57
25°	6	8	10	13	17	23	31	40	61	82	118
22.5°	7	9	12	17	23	32	45	74	118	173	213
20°	9	11	15	22	31	45	78	139	204	244	280
17.5°	10	13	19	27	40	74	139	212	259	317	372
15°	11	16	23	34	61	118	204	259	329	426	557
12.5°	12	18	26	41	82	173	244	317	426	589	925
10°	14	21	31	57	118	213	280	372	557	925	1423
7.5°	15	22	36	70	153	238	320	465	761	1277	2020
5°	16	24	38	80	178	256	350	538	960	1661	2497
2.5°	17	25	40	86	194	267	369	584	1084	1921	2787
0°	17	25	41	88	199	271	375	599	1127	2011	2887
-2.5°	17	25	40	86	194	267	369	584	1084	1921	2787
-5°	16	24	38	80	178	256	350	538	960	1661	2497
-7.5°	15	22	36	70	153	238	320	465	761	1277	2020
-10°	14	21	31	57	118	213	280	372	557	925	1423
-12.5°	12	18	26	41	82	173	244	317	426	589	925
-15°	11	16	23	34	61	118	204	259	329	426	557
-17.5°	10	13	19	27	40	74	139	212	259	317	372
-20°	9	11	15	22	31	45	78	139	204	244	280



REPORT NUMBER: P220352 (CONVERTED FROM TYPE C PHOTOMETRY)
 CATALOG NUMBER: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED4097-M-BK-L1-UNV

CANDELA DISTRIBUTION (continued):

	-35°	-32.5°	-30°	-27.5°	-25°	-22.5°	-20°	-17.5°	-15°	-12.5°	-10°
-22.5°	7	9	12	17	23	32	45	74	118	173	213
-25°	6	8	10	13	17	23	31	40	61	82	118
-27.5°	5	7	8	10	13	17	22	27	34	41	57
-30°	3	5	7	8	10	12	15	19	23	26	31
-32.5°	3	4	5	7	8	9	11	13	16	18	21
-35°	2	3	3	5	6	7	9	10	11	12	14
-37.5°	2	2	3	3	4	5	7	7	8	9	10
-40°	1	2	2	3	3	3	4	5	6	7	7
-42.5°	1	1	2	2	2	3	3	3	4	4	5
-45°	1	1	1	1	2	2	2	2	3	3	3
-47.5°	1	1	1	1	1	1	1	2	2	2	2
-50°	1	1	1	1	1	1	1	1	1	1	1
-52.5°	1	1	1	1	1	1	1	1	1	1	1
-55°	0	0	1	1	1	1	1	1	1	1	1
-57.5°	0	0	0	0	1	1	1	1	1	1	1
-60°	0	0	0	0	0	0	0	0	0	1	1
-62.5°	0	0	0	0	0	0	0	0	0	0	0
-65°	0	0	0	0	0	0	0	0	0	0	0
-67.5°	0	0	0	0	0	0	0	0	0	0	0
-70°	0	0	0	0	0	0	0	0	0	0	0
-72.5°	0	0	0	0	0	0	0	0	0	0	0
-75°	0	0	0	0	0	0	0	0	0	0	0
-77.5°	0	0	0	0	0	0	0	0	0	0	0
-80°	0	0	0	0	0	0	0	0	0	0	0
-82.5°	0	0	0	0	0	0	0	0	0	0	0
-85°	0	0	0	0	0	0	0	0	0	0	0
-87.5°	0	0	0	0	0	0	0	0	0	0	0
-90°	0	0	0	0	0	0	0	0	0	0	0



REPORT NUMBER: P220352 (CONVERTED FROM TYPE C PHOTOMETRY)
 CATALOG NUMBER: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED4097-M-BK-L1-UNV

CANDELA DISTRIBUTION (continued):

	-7.5°	-5°	-2.5°	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°
90°	0	0	0	0	0	0	0	0	0	0	0
87.5°	0	0	0	0	0	0	0	0	0	0	0
85°	0	0	0	0	0	0	0	0	0	0	0
82.5°	0	0	0	0	0	0	0	0	0	0	0
80°	0	0	0	0	0	0	0	0	0	0	0
77.5°	0	0	0	0	0	0	0	0	0	0	0
75°	0	0	0	0	0	0	0	0	0	0	0
72.5°	0	0	0	0	0	0	0	0	0	0	0
70°	0	0	0	0	0	0	0	0	0	0	0
67.5°	0	0	0	0	0	0	0	0	0	0	0
65°	0	0	0	0	0	0	0	0	0	0	0
62.5°	0	0	0	0	0	0	0	0	0	0	0
60°	1	1	1	1	1	1	1	1	1	0	0
57.5°	1	1	1	1	1	1	1	1	1	1	1
55°	1	1	1	1	1	1	1	1	1	1	1
52.5°	1	1	1	1	1	1	1	1	1	1	1
50°	2	2	2	2	2	2	2	1	1	1	1
47.5°	2	2	2	3	2	2	2	2	2	2	2
45°	3	3	3	3	3	3	3	3	3	3	2
42.5°	5	6	6	6	6	6	5	5	4	4	3
40°	8	8	8	8	8	8	8	7	7	6	5
37.5°	10	11	11	11	11	11	10	10	9	8	7
35°	15	16	17	17	17	16	15	14	12	11	10
32.5°	22	24	25	25	25	24	22	21	18	16	13
30°	36	38	40	41	40	38	36	31	26	23	19
27.5°	70	80	86	88	86	80	70	57	41	34	27
25°	153	178	194	199	194	178	153	118	82	61	40
22.5°	238	256	267	271	267	256	238	213	173	118	74
20°	320	350	369	375	369	350	320	280	244	204	139
17.5°	465	538	584	599	584	538	465	372	317	259	212
15°	761	960	1084	1127	1084	960	761	557	426	329	259
12.5°	1277	1661	1921	2011	1921	1661	1277	925	589	426	317
10°	2020	2497	2787	2887	2787	2497	2020	1423	925	557	372
7.5°	2692	3184	3488	3594	3488	3184	2692	2020	1277	761	465
5°	3184	3709	4046	4170	4046	3709	3184	2497	1661	960	538
2.5°	3488	4046	4406	4526	4406	4046	3488	2787	1921	1084	584
0°	3594	4170	4526	4677	4526	4170	3594	2887	2011	1127	599
-2.5°	3488	4046	4406	4526	4406	4046	3488	2787	1921	1084	584
-5°	3184	3709	4046	4170	4046	3709	3184	2497	1661	960	538
-7.5°	2692	3184	3488	3594	3488	3184	2692	2020	1277	761	465
-10°	2020	2497	2787	2887	2787	2497	2020	1423	925	557	372
-12.5°	1277	1661	1921	2011	1921	1661	1277	925	589	426	317
-15°	761	960	1084	1127	1084	960	761	557	426	329	259
-17.5°	465	538	584	599	584	538	465	372	317	259	212
-20°	320	350	369	375	369	350	320	280	244	204	139



REPORT NUMBER: P220352 (CONVERTED FROM TYPE C PHOTOMETRY)
 CATALOG NUMBER: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED4097-M-BK-L1-UNV

CANDELA DISTRIBUTION (continued):

	-7.5°	-5°	-2.5°	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°
-22.5°	238	256	267	271	267	256	238	213	173	118	74
-25°	153	178	194	199	194	178	153	118	82	61	40
-27.5°	70	80	86	88	86	80	70	57	41	34	27
-30°	36	38	40	41	40	38	36	31	26	23	19
-32.5°	22	24	25	25	25	24	22	21	18	16	13
-35°	15	16	17	17	17	16	15	14	12	11	10
-37.5°	10	11	11	11	11	11	10	10	9	8	7
-40°	8	8	8	8	8	8	8	7	7	6	5
-42.5°	5	6	6	6	6	6	5	5	4	4	3
-45°	3	3	3	3	3	3	3	3	3	3	2
-47.5°	2	2	2	3	2	2	2	2	2	2	2
-50°	2	2	2	2	2	2	2	1	1	1	1
-52.5°	1	1	1	1	1	1	1	1	1	1	1
-55°	1	1	1	1	1	1	1	1	1	1	1
-57.5°	1	1	1	1	1	1	1	1	1	1	1
-60°	1	1	1	1	1	1	1	1	1	0	0
-62.5°	0	0	0	0	0	0	0	0	0	0	0
-65°	0	0	0	0	0	0	0	0	0	0	0
-67.5°	0	0	0	0	0	0	0	0	0	0	0
-70°	0	0	0	0	0	0	0	0	0	0	0
-72.5°	0	0	0	0	0	0	0	0	0	0	0
-75°	0	0	0	0	0	0	0	0	0	0	0
-77.5°	0	0	0	0	0	0	0	0	0	0	0
-80°	0	0	0	0	0	0	0	0	0	0	0
-82.5°	0	0	0	0	0	0	0	0	0	0	0
-85°	0	0	0	0	0	0	0	0	0	0	0
-87.5°	0	0	0	0	0	0	0	0	0	0	0
-90°	0	0	0	0	0	0	0	0	0	0	0



REPORT NUMBER: P220352 (CONVERTED FROM TYPE C PHOTOMETRY)
 CATALOG NUMBER: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED4097-M-BK-L1-UNV

CANDELA DISTRIBUTION (continued):

	20°	22.5°	25°	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°
90°	0	0	0	0	0	0	0	0	0	0	0
87.5°	0	0	0	0	0	0	0	0	0	0	0
85°	0	0	0	0	0	0	0	0	0	0	0
82.5°	0	0	0	0	0	0	0	0	0	0	0
80°	0	0	0	0	0	0	0	0	0	0	0
77.5°	0	0	0	0	0	0	0	0	0	0	0
75°	0	0	0	0	0	0	0	0	0	0	0
72.5°	0	0	0	0	0	0	0	0	0	0	0
70°	0	0	0	0	0	0	0	0	0	0	0
67.5°	0	0	0	0	0	0	0	0	0	0	0
65°	0	0	0	0	0	0	0	0	0	0	0
62.5°	0	0	0	0	0	0	0	0	0	0	0
60°	0	0	0	0	0	0	0	0	0	0	0
57.5°	1	1	1	0	0	0	0	0	0	0	0
55°	1	1	1	1	1	0	0	0	0	0	0
52.5°	1	1	1	1	1	1	1	0	0	0	0
50°	1	1	1	1	1	1	1	1	1	0	0
47.5°	1	1	1	1	1	1	1	1	1	1	0
45°	2	2	2	1	1	1	1	1	1	1	1
42.5°	3	3	2	2	2	1	1	1	1	1	1
40°	4	3	3	3	2	2	1	1	1	1	1
37.5°	7	5	4	3	3	2	2	1	1	1	1
35°	9	7	6	5	3	3	2	2	1	1	1
32.5°	11	9	8	7	5	4	3	2	2	1	1
30°	15	12	10	8	7	5	3	3	2	2	1
27.5°	22	17	13	10	8	7	5	3	3	2	1
25°	31	23	17	13	10	8	6	4	3	2	2
22.5°	45	32	23	17	12	9	7	5	3	3	2
20°	78	45	31	22	15	11	9	7	4	3	2
17.5°	139	74	40	27	19	13	10	7	5	3	2
15°	204	118	61	34	23	16	11	8	6	4	3
12.5°	244	173	82	41	26	18	12	9	7	4	3
10°	280	213	118	57	31	21	14	10	7	5	3
7.5°	320	238	153	70	36	22	15	10	8	5	3
5°	350	256	178	80	38	24	16	11	8	6	3
2.5°	369	267	194	86	40	25	17	11	8	6	3
0°	375	271	199	88	41	25	17	11	8	6	3
-2.5°	369	267	194	86	40	25	17	11	8	6	3
-5°	350	256	178	80	38	24	16	11	8	6	3
-7.5°	320	238	153	70	36	22	15	10	8	5	3
-10°	280	213	118	57	31	21	14	10	7	5	3
-12.5°	244	173	82	41	26	18	12	9	7	4	3
-15°	204	118	61	34	23	16	11	8	6	4	3
-17.5°	139	74	40	27	19	13	10	7	5	3	2
-20°	78	45	31	22	15	11	9	7	4	3	2



REPORT NUMBER: P220352 (CONVERTED FROM TYPE C PHOTOMETRY)
 CATALOG NUMBER: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED4097-M-BK-L1-UNV

CANDELA DISTRIBUTION (continued):

	20°	22.5°	25°	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°
-22.5°	45	32	23	17	12	9	7	5	3	3	2
-25°	31	23	17	13	10	8	6	4	3	2	2
-27.5°	22	17	13	10	8	7	5	3	3	2	1
-30°	15	12	10	8	7	5	3	3	2	2	1
-32.5°	11	9	8	7	5	4	3	2	2	1	1
-35°	9	7	6	5	3	3	2	2	1	1	1
-37.5°	7	5	4	3	3	2	2	1	1	1	1
-40°	4	3	3	3	2	2	1	1	1	1	1
-42.5°	3	3	2	2	2	1	1	1	1	1	1
-45°	2	2	2	1	1	1	1	1	1	1	1
-47.5°	1	1	1	1	1	1	1	1	1	1	0
-50°	1	1	1	1	1	1	1	1	1	0	0
-52.5°	1	1	1	1	1	1	1	0	0	0	0
-55°	1	1	1	1	1	0	0	0	0	0	0
-57.5°	1	1	1	0	0	0	0	0	0	0	0
-60°	0	0	0	0	0	0	0	0	0	0	0
-62.5°	0	0	0	0	0	0	0	0	0	0	0
-65°	0	0	0	0	0	0	0	0	0	0	0
-67.5°	0	0	0	0	0	0	0	0	0	0	0
-70°	0	0	0	0	0	0	0	0	0	0	0
-72.5°	0	0	0	0	0	0	0	0	0	0	0
-75°	0	0	0	0	0	0	0	0	0	0	0
-77.5°	0	0	0	0	0	0	0	0	0	0	0
-80°	0	0	0	0	0	0	0	0	0	0	0
-82.5°	0	0	0	0	0	0	0	0	0	0	0
-85°	0	0	0	0	0	0	0	0	0	0	0
-87.5°	0	0	0	0	0	0	0	0	0	0	0
-90°	0	0	0	0	0	0	0	0	0	0	0



REPORT NUMBER: P220352 (CONVERTED FROM TYPE C PHOTOMETRY)
 CATALOG NUMBER: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED4097-M-BK-L1-UNV

CANDELA DISTRIBUTION (continued):

	47.5°	50°	52.5°	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°
90°	0	0	0	0	0	0	0	0	0	0	0
87.5°	0	0	0	0	0	0	0	0	0	0	0
85°	0	0	0	0	0	0	0	0	0	0	0
82.5°	0	0	0	0	0	0	0	0	0	0	0
80°	0	0	0	0	0	0	0	0	0	0	0
77.5°	0	0	0	0	0	0	0	0	0	0	0
75°	0	0	0	0	0	0	0	0	0	0	0
72.5°	0	0	0	0	0	0	0	0	0	0	0
70°	0	0	0	0	0	0	0	0	0	0	0
67.5°	0	0	0	0	0	0	0	0	0	0	0
65°	0	0	0	0	0	0	0	0	0	0	0
62.5°	0	0	0	0	0	0	0	0	0	0	0
60°	0	0	0	0	0	0	0	0	0	0	0
57.5°	0	0	0	0	0	0	0	0	0	0	0
55°	0	0	0	0	0	0	0	0	0	0	0
52.5°	0	0	0	0	0	0	0	0	0	0	0
50°	0	0	0	0	0	0	0	0	0	0	0
47.5°	0	0	0	0	0	0	0	0	0	0	0
45°	0	0	0	0	0	0	0	0	0	0	0
42.5°	1	0	0	0	0	0	0	0	0	0	0
40°	1	1	0	0	0	0	0	0	0	0	0
37.5°	1	1	0	0	0	0	0	0	0	0	0
35°	1	1	1	0	0	0	0	0	0	0	0
32.5°	1	1	1	0	0	0	0	0	0	0	0
30°	1	1	1	1	0	0	0	0	0	0	0
27.5°	1	1	1	1	0	0	0	0	0	0	0
25°	1	1	1	1	1	0	0	0	0	0	0
22.5°	1	1	1	1	1	0	0	0	0	0	0
20°	1	1	1	1	1	0	0	0	0	0	0
17.5°	2	1	1	1	1	0	0	0	0	0	0
15°	2	1	1	1	1	0	0	0	0	0	0
12.5°	2	1	1	1	1	1	0	0	0	0	0
10°	2	1	1	1	1	1	0	0	0	0	0
7.5°	2	2	1	1	1	1	0	0	0	0	0
5°	2	2	1	1	1	1	0	0	0	0	0
2.5°	2	2	1	1	1	1	0	0	0	0	0
0°	3	2	1	1	1	1	0	0	0	0	0
-2.5°	2	2	1	1	1	1	0	0	0	0	0
-5°	2	2	1	1	1	1	0	0	0	0	0
-7.5°	2	2	1	1	1	1	0	0	0	0	0
-10°	2	1	1	1	1	1	0	0	0	0	0
-12.5°	2	1	1	1	1	1	0	0	0	0	0
-15°	2	1	1	1	1	0	0	0	0	0	0
-17.5°	2	1	1	1	1	0	0	0	0	0	0
-20°	1	1	1	1	1	0	0	0	0	0	0



REPORT NUMBER: P220352 (CONVERTED FROM TYPE C PHOTOMETRY)
 CATALOG NUMBER: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED4097-M-BK-L1-UNV

CANDELA DISTRIBUTION (continued):

	47.5°	50°	52.5°	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°
-22.5°	1	1	1	1	1	0	0	0	0	0	0
-25°	1	1	1	1	1	0	0	0	0	0	0
-27.5°	1	1	1	1	0	0	0	0	0	0	0
-30°	1	1	1	1	0	0	0	0	0	0	0
-32.5°	1	1	1	0	0	0	0	0	0	0	0
-35°	1	1	1	0	0	0	0	0	0	0	0
-37.5°	1	1	0	0	0	0	0	0	0	0	0
-40°	1	1	0	0	0	0	0	0	0	0	0
-42.5°	1	0	0	0	0	0	0	0	0	0	0
-45°	0	0	0	0	0	0	0	0	0	0	0
-47.5°	0	0	0	0	0	0	0	0	0	0	0
-50°	0	0	0	0	0	0	0	0	0	0	0
-52.5°	0	0	0	0	0	0	0	0	0	0	0
-55°	0	0	0	0	0	0	0	0	0	0	0
-57.5°	0	0	0	0	0	0	0	0	0	0	0
-60°	0	0	0	0	0	0	0	0	0	0	0
-62.5°	0	0	0	0	0	0	0	0	0	0	0
-65°	0	0	0	0	0	0	0	0	0	0	0
-67.5°	0	0	0	0	0	0	0	0	0	0	0
-70°	0	0	0	0	0	0	0	0	0	0	0
-72.5°	0	0	0	0	0	0	0	0	0	0	0
-75°	0	0	0	0	0	0	0	0	0	0	0
-77.5°	0	0	0	0	0	0	0	0	0	0	0
-80°	0	0	0	0	0	0	0	0	0	0	0
-82.5°	0	0	0	0	0	0	0	0	0	0	0
-85°	0	0	0	0	0	0	0	0	0	0	0
-87.5°	0	0	0	0	0	0	0	0	0	0	0
-90°	0	0	0	0	0	0	0	0	0	0	0



REPORT NUMBER: P220352 (CONVERTED FROM TYPE C PHOTOMETRY)
 CATALOG NUMBER: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED4097-M-BK-L1-UNV

CANDELA DISTRIBUTION (continued):

	75°	77.5°	80°	82.5°	85°	87.5°	90°
90°	0	0	0	0	0	0	0
87.5°	0	0	0	0	0	0	0
85°	0	0	0	0	0	0	0
82.5°	0	0	0	0	0	0	0
80°	0	0	0	0	0	0	0
77.5°	0	0	0	0	0	0	0
75°	0	0	0	0	0	0	0
72.5°	0	0	0	0	0	0	0
70°	0	0	0	0	0	0	0
67.5°	0	0	0	0	0	0	0
65°	0	0	0	0	0	0	0
62.5°	0	0	0	0	0	0	0
60°	0	0	0	0	0	0	0
57.5°	0	0	0	0	0	0	0
55°	0	0	0	0	0	0	0
52.5°	0	0	0	0	0	0	0
50°	0	0	0	0	0	0	0
47.5°	0	0	0	0	0	0	0
45°	0	0	0	0	0	0	0
42.5°	0	0	0	0	0	0	0
40°	0	0	0	0	0	0	0
37.5°	0	0	0	0	0	0	0
35°	0	0	0	0	0	0	0
32.5°	0	0	0	0	0	0	0
30°	0	0	0	0	0	0	0
27.5°	0	0	0	0	0	0	0
25°	0	0	0	0	0	0	0
22.5°	0	0	0	0	0	0	0
20°	0	0	0	0	0	0	0
17.5°	0	0	0	0	0	0	0
15°	0	0	0	0	0	0	0
12.5°	0	0	0	0	0	0	0
10°	0	0	0	0	0	0	0
7.5°	0	0	0	0	0	0	0
5°	0	0	0	0	0	0	0
2.5°	0	0	0	0	0	0	0
0°	0	0	0	0	0	0	0
-2.5°	0	0	0	0	0	0	0
-5°	0	0	0	0	0	0	0
-7.5°	0	0	0	0	0	0	0
-10°	0	0	0	0	0	0	0
-12.5°	0	0	0	0	0	0	0
-15°	0	0	0	0	0	0	0
-17.5°	0	0	0	0	0	0	0
-20°	0	0	0	0	0	0	0



REPORT NUMBER: P220352 (CONVERTED FROM TYPE C PHOTOMETRY)
 CATALOG NUMBER: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED4097-M-BK-L1-UNV

CANDELA DISTRIBUTION (continued):

	75°	77.5°	80°	82.5°	85°	87.5°	90°
-22.5°	0	0	0	0	0	0	0
-25°	0	0	0	0	0	0	0
-27.5°	0	0	0	0	0	0	0
-30°	0	0	0	0	0	0	0
-32.5°	0	0	0	0	0	0	0
-35°	0	0	0	0	0	0	0
-37.5°	0	0	0	0	0	0	0
-40°	0	0	0	0	0	0	0
-42.5°	0	0	0	0	0	0	0
-45°	0	0	0	0	0	0	0
-47.5°	0	0	0	0	0	0	0
-50°	0	0	0	0	0	0	0
-52.5°	0	0	0	0	0	0	0
-55°	0	0	0	0	0	0	0
-57.5°	0	0	0	0	0	0	0
-60°	0	0	0	0	0	0	0
-62.5°	0	0	0	0	0	0	0
-65°	0	0	0	0	0	0	0
-67.5°	0	0	0	0	0	0	0
-70°	0	0	0	0	0	0	0
-72.5°	0	0	0	0	0	0	0
-75°	0	0	0	0	0	0	0
-77.5°	0	0	0	0	0	0	0
-80°	0	0	0	0	0	0	0
-82.5°	0	0	0	0	0	0	0
-85°	0	0	0	0	0	0	0
-87.5°	0	0	0	0	0	0	0
-90°	0	0	0	0	0	0	0

(END OF REPORT)