

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: P220347 (CONVERTED FROM TYPE C PHOTOMETRY)

Luminaire Tested: **1002-[A1, P1, S1, SU1]-[RW, RI]-LED3590-M-BK-L1-UNV**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P220347 (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]-LED3590-M-BK-L1-UNV
Description: LUMIERE LANTERRA 1002 LED ACCENT/PATH/SIGN LUMINAIRE, RECESSED LENS,
MEDIUM FLOOD OPTIC, BLACK HOUSING.
Light Source: (1) 3500K CCT, 90 CRI LED
Ballast/Driver: ELECTRONIC DRIVER

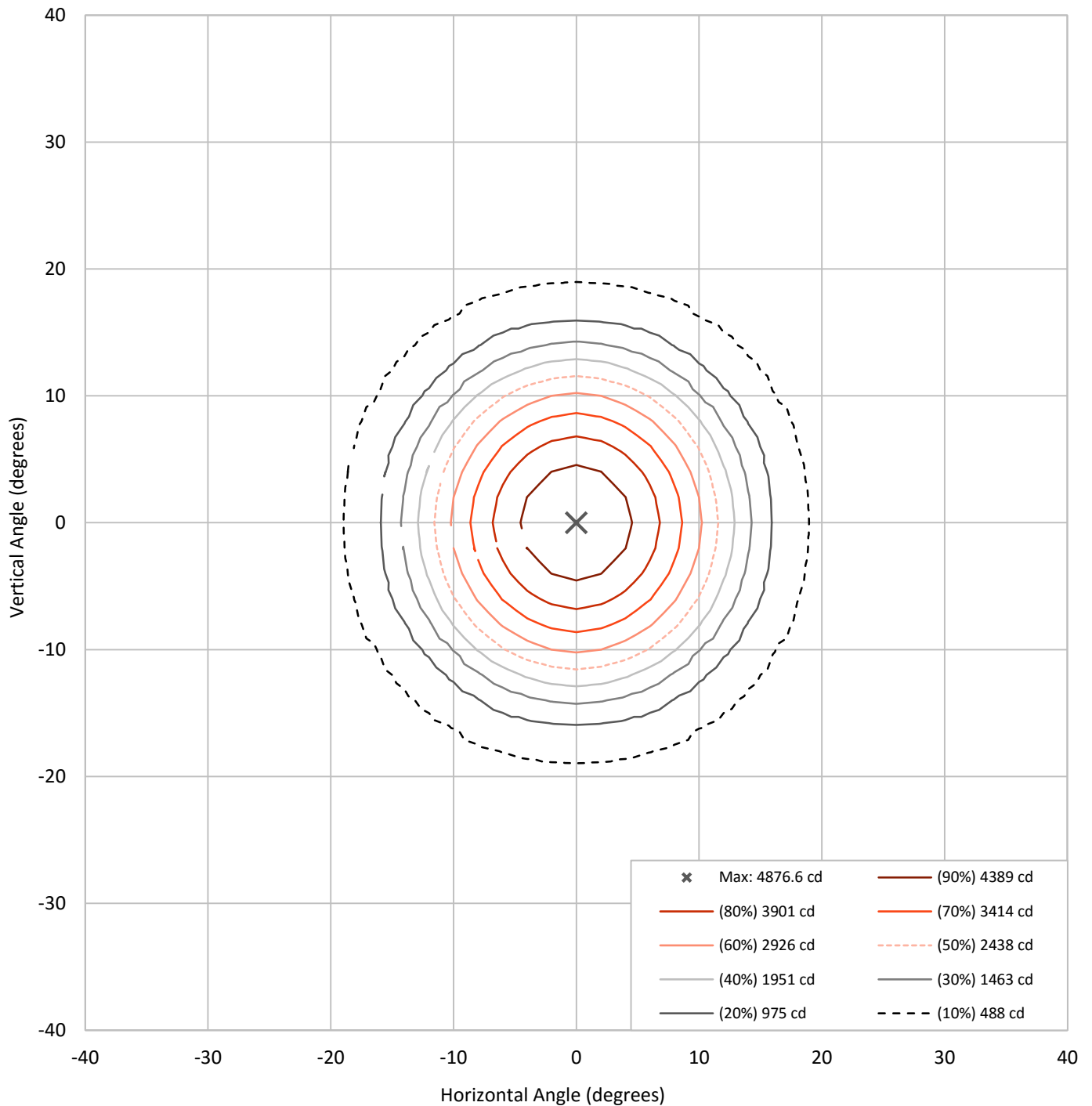
Summary

Lumens per Lamp:	N/A	NEMA Type:	3H x 3V
Luminaire Lumens:	828.1 lumens	Max Intensity:	4876.6 candela
Efficiency:	N/A	Max Intensity Angle:	0°H x 0°V
Efficacy:	82.8 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:	455 lumens	Field Lumens:	704.1 lumens
Beam Efficiency:	54.9%	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: P220347 (CONVERTED FROM TYPE C PHOTOMETRY)
CATALOG NUMBER: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED3590-M-BK-L1-UNV

Iso-Candela Plot





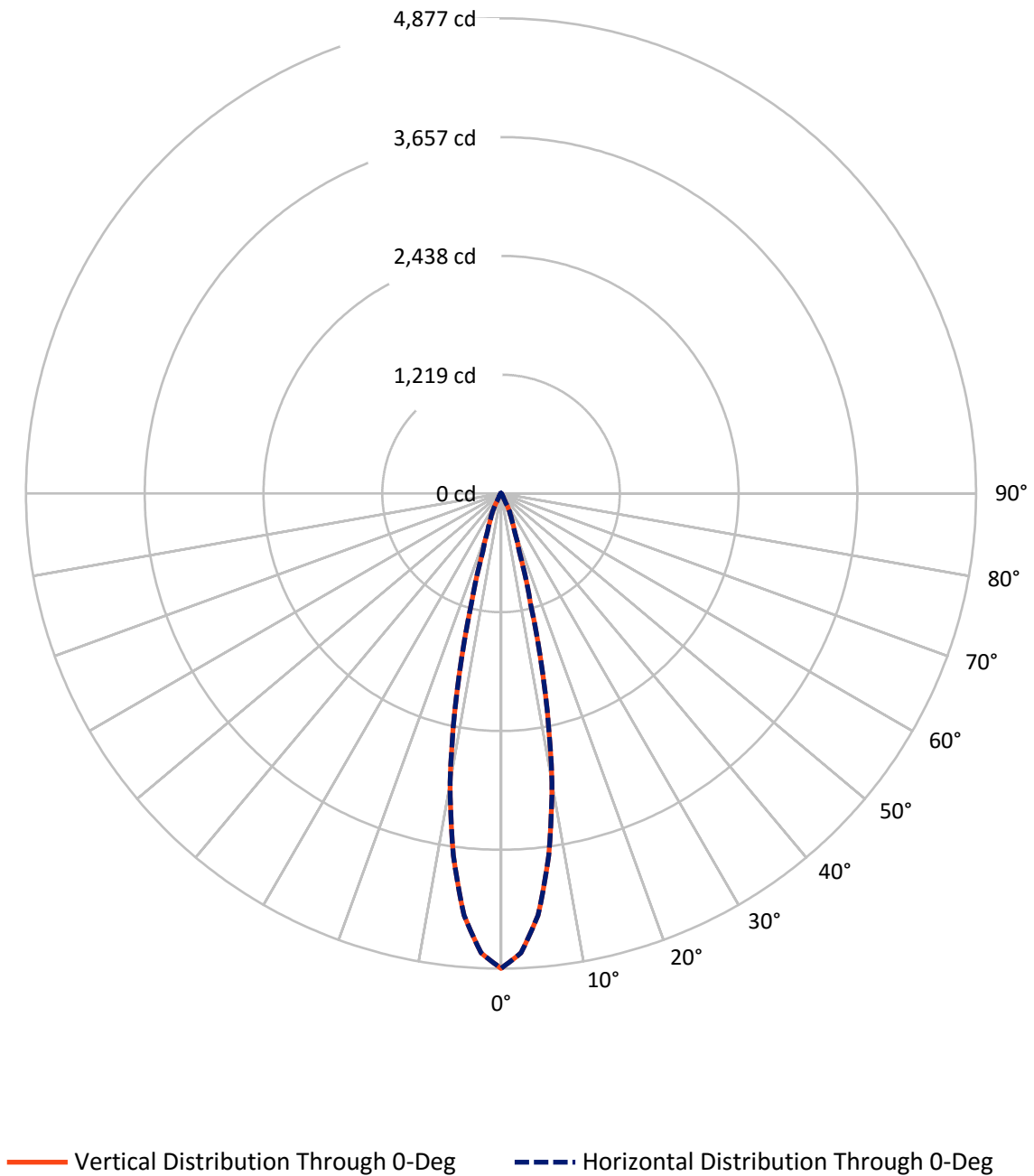
REPORT NUMBER: P220347 (CONVERTED FROM TYPE C PHOTOMETRY)
 CATALOG NUMBER: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED3590-M-BK-L1-UNV

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	
40		0.0	0.0	0.0	0.1	0.2	0.4	0.6	0.6	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	2.5	5.4	5.4	2.5	0.6	0.2	0.0	0.0	0.0	0.0	
20		0.0	0.0	0.1	0.3	2.4	11.7	34.5	34.5	11.7	2.4	0.3	0.1	0.0	0.0		
10	0.0	0.0	0.0	0.1	0.5	5.0	33.7	108.3	108.3	33.7	5.0	0.5	0.1	0.0	0.0	0.0	
0		0.0	0.0	0.1	0.5	5.0	33.7	108.3	108.3	33.7	5.0	0.5	0.1	0.0	0.0		
-10	0.0	0.0	0.0	0.1	0.3	2.4	11.7	34.5	34.5	11.7	2.4	0.3	0.1	0.0	0.0	0.0	
-20		0.0	0.0	0.0	0.2	0.6	2.5	5.4	5.4	2.5	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	0.6	0.6	0.4	0.2	0.1	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	
-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		
-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			
-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	

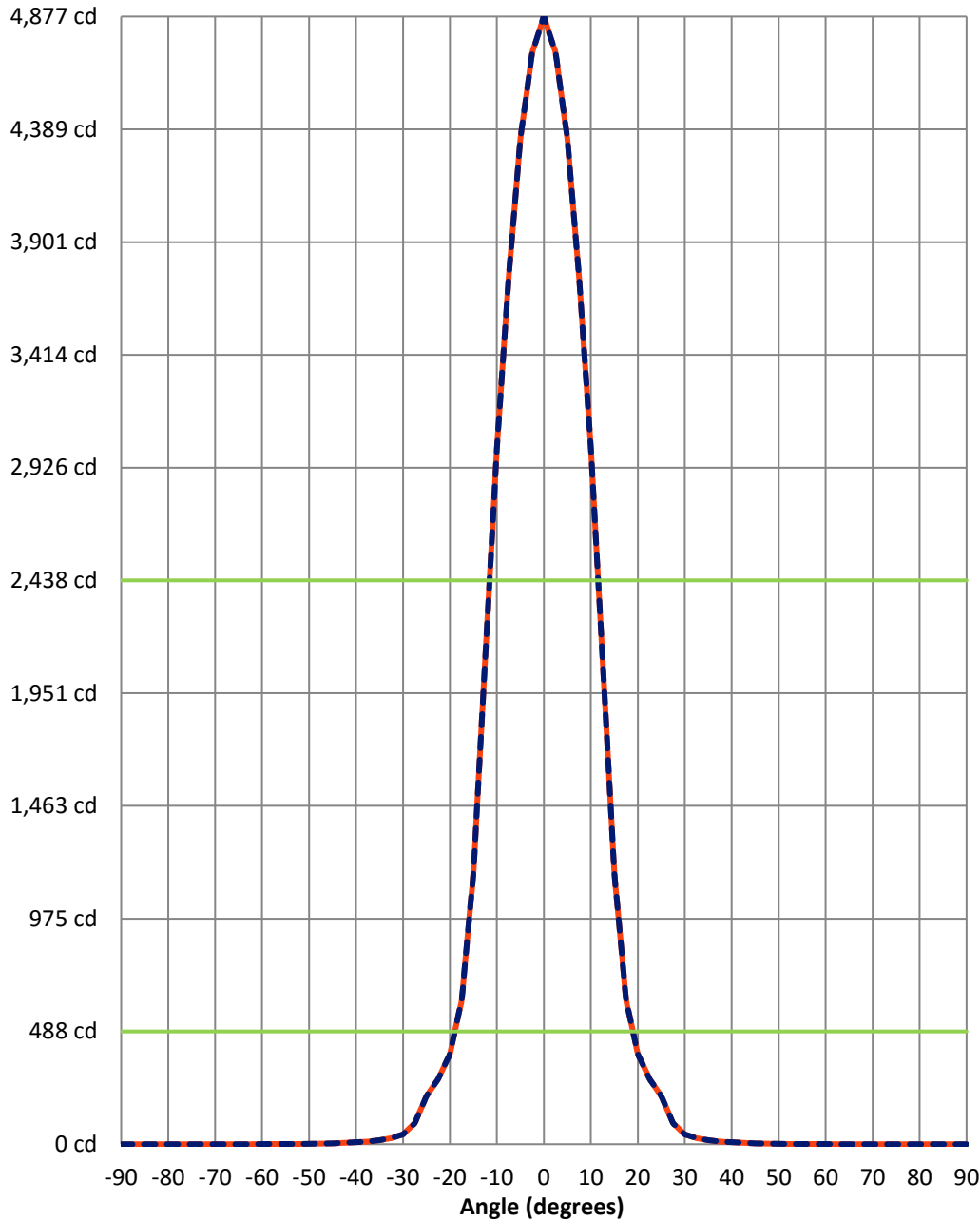
REPORT NUMBER: P220347 (CONVERTED FROM TYPE C PHOTOMETRY)
CATALOG NUMBER: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED3590-M-BK-L1-UNV

Luminous Intensity Polar Plot



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CATALOG NUMBER: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED3590-M-BK-L1-UNV

Luminous Intensity Plot



Beam:
H Angle: 23.1°
V Angle: 23.1°
Lumens: 455
Efficiency: 54.9%

Field:
H Angle: 37.9°
V Angle: 37.9°
Lumens: 704.1
Efficiency: 85.0%

Spill:
Lumens: 124
Efficiency: 15.0%

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



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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: P220347 (CONVERTED FROM TYPE C PHOTOMETRY)
 CATALOG NUMBER: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED3590-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: P220347 (CONVERTED FROM TYPE C PHOTOMETRY)
 CATALOG NUMBER: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED3590-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	1	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	5
22.5°	0	0	1	1	1	1	1	2	3	4	6
20°	0	0	1	1	1	1	2	2	3	5	7
17.5°	0	0	1	1	1	1	2	3	3	6	8
15°	0	0	1	1	1	1	2	3	4	6	9
12.5°	0	1	1	1	1	1	2	3	5	7	9
10°	0	1	1	1	1	1	2	3	5	8	10
7.5°	0	1	1	1	1	2	2	3	6	8	11
5°	0	1	1	1	1	2	3	3	6	8	11
2.5°	0	1	1	1	1	2	3	3	6	9	11
0°	0	1	1	1	1	2	3	4	6	9	11
-2.5°	0	1	1	1	1	2	3	3	6	9	11
-5°	0	1	1	1	1	2	3	3	6	8	11
-7.5°	0	1	1	1	1	2	2	3	6	8	11
-10°	0	1	1	1	1	1	2	3	5	8	10
-12.5°	0	1	1	1	1	1	2	3	5	7	9
-15°	0	0	1	1	1	1	2	3	4	6	9
-17.5°	0	0	1	1	1	1	2	3	3	6	8
-20°	0	0	1	1	1	1	2	2	3	5	7



REPORT NUMBER: P220347 (CONVERTED FROM TYPE C PHOTOMETRY)
 CATALOG NUMBER: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED3590-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	4	6
-25°	0	0	1	1	1	1	1	2	2	3	5
-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	1	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: P220347 (CONVERTED FROM TYPE C PHOTOMETRY)
 CATALOG NUMBER: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED3590-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	1	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	2	2	2	2	2
45°	1	1	1	1	2	2	2	3	3	3	3
42.5°	1	1	2	2	2	3	3	3	4	5	5
40°	1	2	2	3	3	4	5	6	6	7	8
37.5°	2	2	3	3	5	6	7	8	9	9	10
35°	2	3	4	5	7	8	9	10	11	13	14
32.5°	3	4	5	7	9	10	11	14	16	19	21
30°	4	5	7	9	10	13	16	20	24	28	33
27.5°	5	7	9	11	14	18	22	28	36	43	60
25°	7	9	10	14	18	24	32	41	64	86	124
22.5°	8	10	13	18	24	33	47	77	123	181	222
20°	9	11	16	22	32	47	82	145	213	254	292
17.5°	10	14	20	28	41	77	145	221	270	330	388
15°	11	16	24	36	64	123	213	270	344	444	581
12.5°	13	19	28	43	86	181	254	330	444	615	964
10°	14	21	33	60	124	222	292	388	581	964	1484
7.5°	16	23	37	73	160	248	334	485	794	1332	2106
5°	17	25	40	83	186	267	365	561	1001	1732	2604
2.5°	17	26	42	89	202	278	384	609	1131	2003	2906
0°	17	26	43	91	208	282	391	625	1175	2097	3010
-2.5°	17	26	42	89	202	278	384	609	1131	2003	2906
-5°	17	25	40	83	186	267	365	561	1001	1732	2604
-7.5°	16	23	37	73	160	248	334	485	794	1332	2106
-10°	14	21	33	60	124	222	292	388	581	964	1484
-12.5°	13	19	28	43	86	181	254	330	444	615	964
-15°	11	16	24	36	64	123	213	270	344	444	581
-17.5°	10	14	20	28	41	77	145	221	270	330	388
-20°	9	11	16	22	32	47	82	145	213	254	292



REPORT NUMBER: P220347 (CONVERTED FROM TYPE C PHOTOMETRY)
 CATALOG NUMBER: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED3590-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°	8	10	13	18	24	33	47	77	123	181	222
-25°	7	9	10	14	18	24	32	41	64	86	124
-27.5°	5	7	9	11	14	18	22	28	36	43	60
-30°	4	5	7	9	10	13	16	20	24	28	33
-32.5°	3	4	5	7	9	10	11	14	16	19	21
-35°	2	3	4	5	7	8	9	10	11	13	14
-37.5°	2	2	3	3	5	6	7	8	9	9	10
-40°	1	2	2	3	3	4	5	6	6	7	8
-42.5°	1	1	2	2	2	3	3	3	4	5	5
-45°	1	1	1	1	2	2	2	3	3	3	3
-47.5°	1	1	1	1	1	1	2	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	1	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: P220347 (CONVERTED FROM TYPE C PHOTOMETRY)
 CATALOG NUMBER: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED3590-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	3	3	3	3	3	2	2	2	2	2
45°	3	3	3	4	3	3	3	3	3	3	3
42.5°	6	6	6	6	6	6	6	5	5	4	3
40°	8	8	9	9	9	8	8	8	7	6	6
37.5°	11	11	11	11	11	11	11	10	9	9	8
35°	16	17	17	17	17	17	16	14	13	11	10
32.5°	23	25	26	26	26	25	23	21	19	16	14
30°	37	40	42	43	42	40	37	33	28	24	20
27.5°	73	83	89	91	89	83	73	60	43	36	28
25°	160	186	202	208	202	186	160	124	86	64	41
22.5°	248	267	278	282	278	267	248	222	181	123	77
20°	334	365	384	391	384	365	334	292	254	213	145
17.5°	485	561	609	625	609	561	485	388	330	270	221
15°	794	1001	1131	1175	1131	1001	794	581	444	344	270
12.5°	1332	1732	2003	2097	2003	1732	1332	964	615	444	330
10°	2106	2604	2906	3010	2906	2604	2106	1484	964	581	388
7.5°	2807	3320	3637	3748	3637	3320	2807	2106	1332	794	485
5°	3320	3867	4219	4348	4219	3867	3320	2604	1732	1001	561
2.5°	3637	4219	4594	4719	4594	4219	3637	2906	2003	1131	609
0°	3748	4348	4719	4877	4719	4348	3748	3010	2097	1175	625
-2.5°	3637	4219	4594	4719	4594	4219	3637	2906	2003	1131	609
-5°	3320	3867	4219	4348	4219	3867	3320	2604	1732	1001	561
-7.5°	2807	3320	3637	3748	3637	3320	2807	2106	1332	794	485
-10°	2106	2604	2906	3010	2906	2604	2106	1484	964	581	388
-12.5°	1332	1732	2003	2097	2003	1732	1332	964	615	444	330
-15°	794	1001	1131	1175	1131	1001	794	581	444	344	270
-17.5°	485	561	609	625	609	561	485	388	330	270	221
-20°	334	365	384	391	384	365	334	292	254	213	145



REPORT NUMBER: P220347 (CONVERTED FROM TYPE C PHOTOMETRY)
 CATALOG NUMBER: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED3590-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°	248	267	278	282	278	267	248	222	181	123	77
-25°	160	186	202	208	202	186	160	124	86	64	41
-27.5°	73	83	89	91	89	83	73	60	43	36	28
-30°	37	40	42	43	42	40	37	33	28	24	20
-32.5°	23	25	26	26	26	25	23	21	19	16	14
-35°	16	17	17	17	17	17	16	14	13	11	10
-37.5°	11	11	11	11	11	11	11	10	9	9	8
-40°	8	8	9	9	9	8	8	8	7	6	6
-42.5°	6	6	6	6	6	6	6	5	5	4	3
-45°	3	3	3	4	3	3	3	3	3	3	3
-47.5°	2	3	3	3	3	3	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: P220347 (CONVERTED FROM TYPE C PHOTOMETRY)
 CATALOG NUMBER: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED3590-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	1	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°	2	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°	5	4	3	3	2	2	1	1	1	1	1
37.5°	7	6	5	3	3	2	2	1	1	1	1
35°	9	8	7	5	4	3	2	2	1	1	1
32.5°	11	10	9	7	5	4	3	2	2	1	1
30°	16	13	10	9	7	5	4	3	2	2	1
27.5°	22	18	14	11	9	7	5	3	3	2	1
25°	32	24	18	14	10	9	7	5	3	2	2
22.5°	47	33	24	18	13	10	8	6	4	3	2
20°	82	47	32	22	16	11	9	7	5	3	2
17.5°	145	77	41	28	20	14	10	8	6	3	3
15°	213	123	64	36	24	16	11	9	6	4	3
12.5°	254	181	86	43	28	19	13	9	7	5	3
10°	292	222	124	60	33	21	14	10	8	5	3
7.5°	334	248	160	73	37	23	16	11	8	6	3
5°	365	267	186	83	40	25	17	11	8	6	3
2.5°	384	278	202	89	42	26	17	11	9	6	3
0°	391	282	208	91	43	26	17	11	9	6	4
-2.5°	384	278	202	89	42	26	17	11	9	6	3
-5°	365	267	186	83	40	25	17	11	8	6	3
-7.5°	334	248	160	73	37	23	16	11	8	6	3
-10°	292	222	124	60	33	21	14	10	8	5	3
-12.5°	254	181	86	43	28	19	13	9	7	5	3
-15°	213	123	64	36	24	16	11	9	6	4	3
-17.5°	145	77	41	28	20	14	10	8	6	3	3
-20°	82	47	32	22	16	11	9	7	5	3	2



REPORT NUMBER: P220347 (CONVERTED FROM TYPE C PHOTOMETRY)
 CATALOG NUMBER: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED3590-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°	47	33	24	18	13	10	8	6	4	3	2
-25°	32	24	18	14	10	9	7	5	3	2	2
-27.5°	22	18	14	11	9	7	5	3	3	2	1
-30°	16	13	10	9	7	5	4	3	2	2	1
-32.5°	11	10	9	7	5	4	3	2	2	1	1
-35°	9	8	7	5	4	3	2	2	1	1	1
-37.5°	7	6	5	3	3	2	2	1	1	1	1
-40°	5	4	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°	2	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	1	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: P220347 (CONVERTED FROM TYPE C PHOTOMETRY)
 CATALOG NUMBER: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED3590-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	1	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°	2	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°	3	2	1	1	1	1	0	0	0	0	0
2.5°	3	2	1	1	1	1	0	0	0	0	0
0°	3	2	1	1	1	1	0	0	0	0	0
-2.5°	3	2	1	1	1	1	0	0	0	0	0
-5°	3	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°	2	1	1	1	1	0	0	0	0	0	0



REPORT NUMBER: P220347 (CONVERTED FROM TYPE C PHOTOMETRY)
 CATALOG NUMBER: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED3590-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	1	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: P220347 (CONVERTED FROM TYPE C PHOTOMETRY)
 CATALOG NUMBER: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED3590-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: P220347 (CONVERTED FROM TYPE C PHOTOMETRY)
 CATALOG NUMBER: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED3590-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)