

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: P220362 (CONVERTED FROM TYPE C PHOTOMETRY)

Luminaire Tested: **1002-[A1, P1, S1, SU1]-[RW, RI]-LED3090-W-BK-L1-UNV**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P220362 (CONVERTED FROM TYPE C PHOTOMETRY)
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29416)
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]-LED3090-W-BK-L1-UNV
Description: LUMIERE LANTERRA 1002 LED ACCENT/PATH/SIGN LUMINAIRE, RECESSED LENS,
WIDE FLOOD OPTIC, BLACK HOUSING.
Light Source: (1) 3000K CCT, 90 CRI LED
Ballast/Driver: ELECTRONIC DRIVER

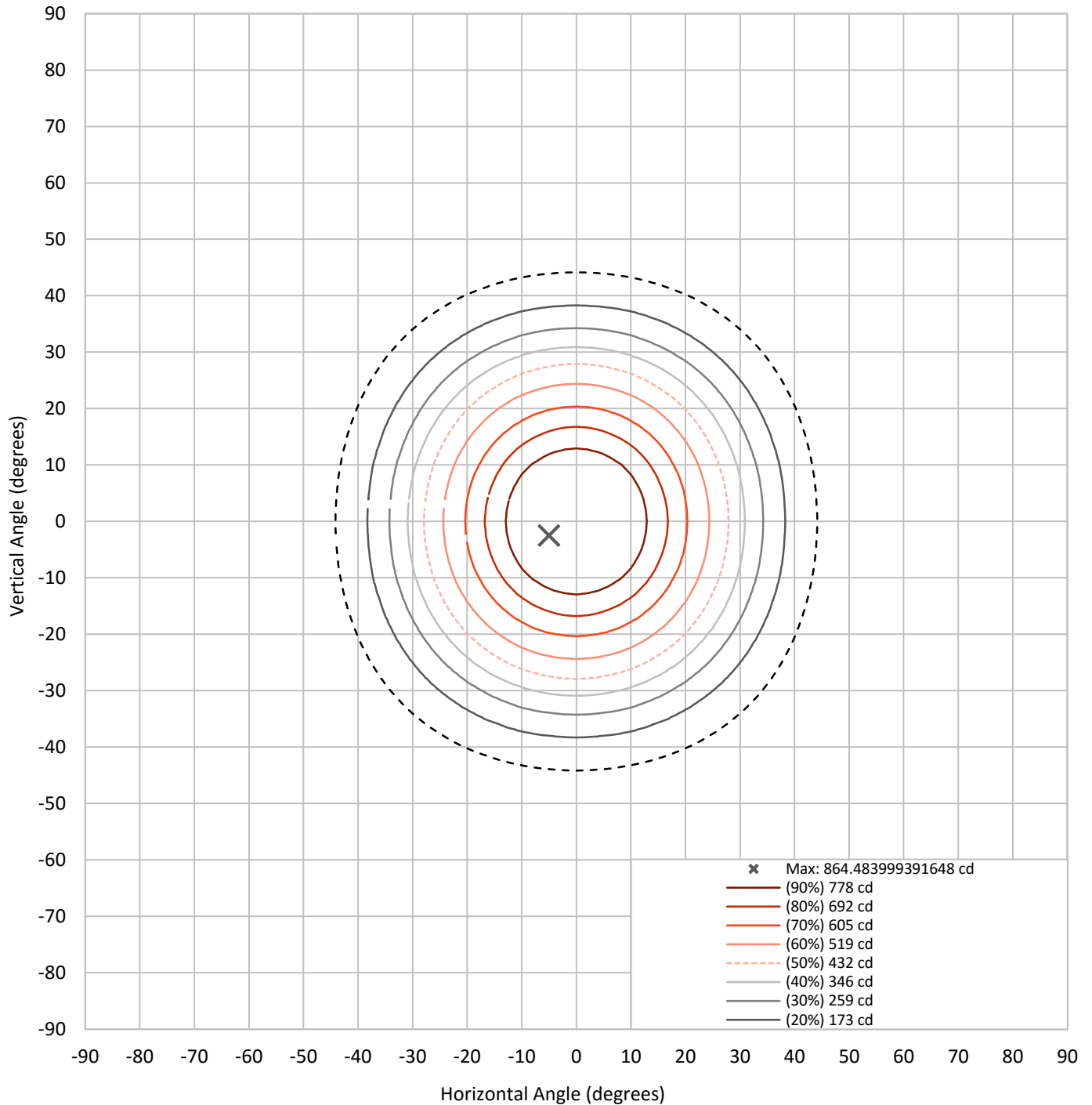
Summary

Lumens per Lamp:	N/A	NEMA Type:	5H x 5V
Luminaire Lumens:	724.9 lumens	Max Intensity:	864.5 candela
Efficiency:	N/A	Max Intensity Angle:	-5°H x -2.5°V
Efficacy:	72.5 lumens/watt		
Luminous Opening:	Circular (Dia: 0.17' x H: 0')		
Beam Angle (50%):	55.7°H x 55.1°V	Field Angle (10%):	88.2°H x 87.8°V
Beam Lumens:	465 lumens	Field Lumens:	699.6 lumens
Beam Efficiency:	64.2%	Field Efficiency:	96.5%
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: P220362 (CONVERTED FROM TYPE C PHOTOMETRY)
CATALOG NUMBER: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED3090-W-BK-L1-UNV

Iso-Candela Plot





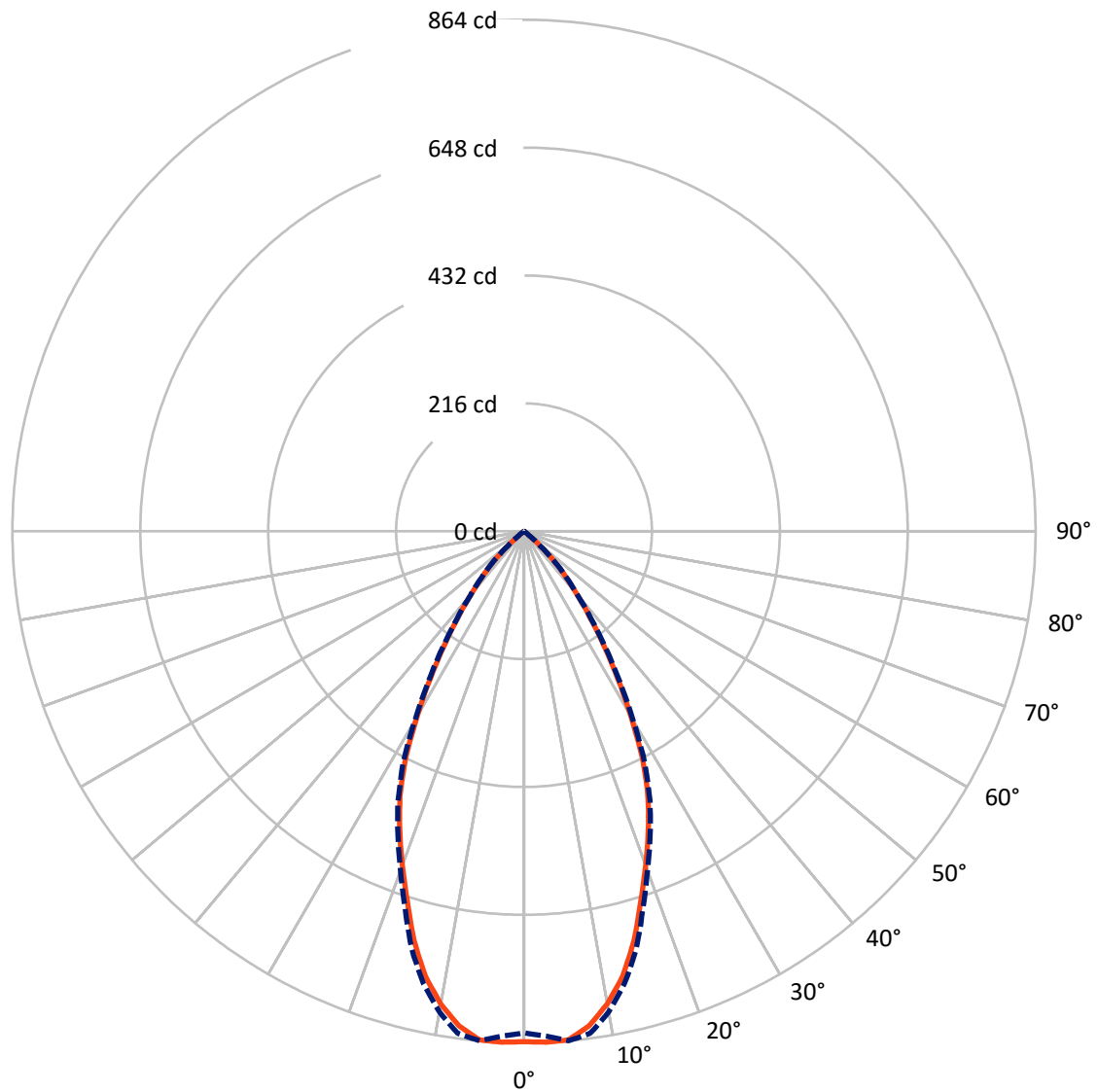
REPORT NUMBER: P220362 (CONVERTED FROM TYPE C PHOTOMETRY)
 CATALOG NUMBER: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED3090-W-BK-L1-UNV

Lumen Table

90	0.0															
80	0.0															
70	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	0.0	0.0
50	0.0	0.0	0.0	0.1	0.6	1.5	2.2	2.2	1.5	0.6	0.1	0.0	0.0	0.0	0.0	0.0
40	0.0	0.0	0.1	1.1	3.2	5.5	7.2	7.2	5.5	3.2	1.1	0.1	0.0	0.0	0.0	0.0
30	0.0	0.0	0.5	2.9	6.9	11.7	14.7	14.7	11.7	6.9	2.9	0.5	0.0	0.0	0.0	0.0
20	0.0	0.0	1.2	4.7	11.0	17.3	21.4	21.4	17.3	11.0	4.7	1.2	0.0	0.0	0.0	0.0
10	0.0	0.0	1.6	6.0	13.4	20.8	25.5	25.5	20.8	13.4	6.0	1.6	0.0	0.0	0.0	0.0
0	0.0	0.0	1.6	6.0	13.4	20.8	25.5	25.5	20.8	13.4	6.0	1.6	0.0	0.0	0.0	0.0
-10	0.0	0.0	1.2	4.7	11.0	17.3	21.4	21.4	17.3	11.0	4.7	1.2	0.0	0.0	0.0	0.0
-20	0.0	0.0	0.5	2.9	6.9	11.7	14.7	14.7	11.7	6.9	2.9	0.5	0.0	0.0	0.0	0.0
-30	0.0	0.0	0.1	1.1	3.2	5.5	7.2	7.2	5.5	3.2	1.1	0.1	0.0	0.0	0.0	0.0
-40	0.0	0.0	0.0	0.1	0.6	1.5	2.2	2.2	1.5	0.6	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	0.1	0.1	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	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
-80	0.0															
-90	0.0															

REPORT NUMBER: P220362 (CONVERTED FROM TYPE C PHOTOMETRY)
CATALOG NUMBER: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED3090-W-BK-L1-UNV

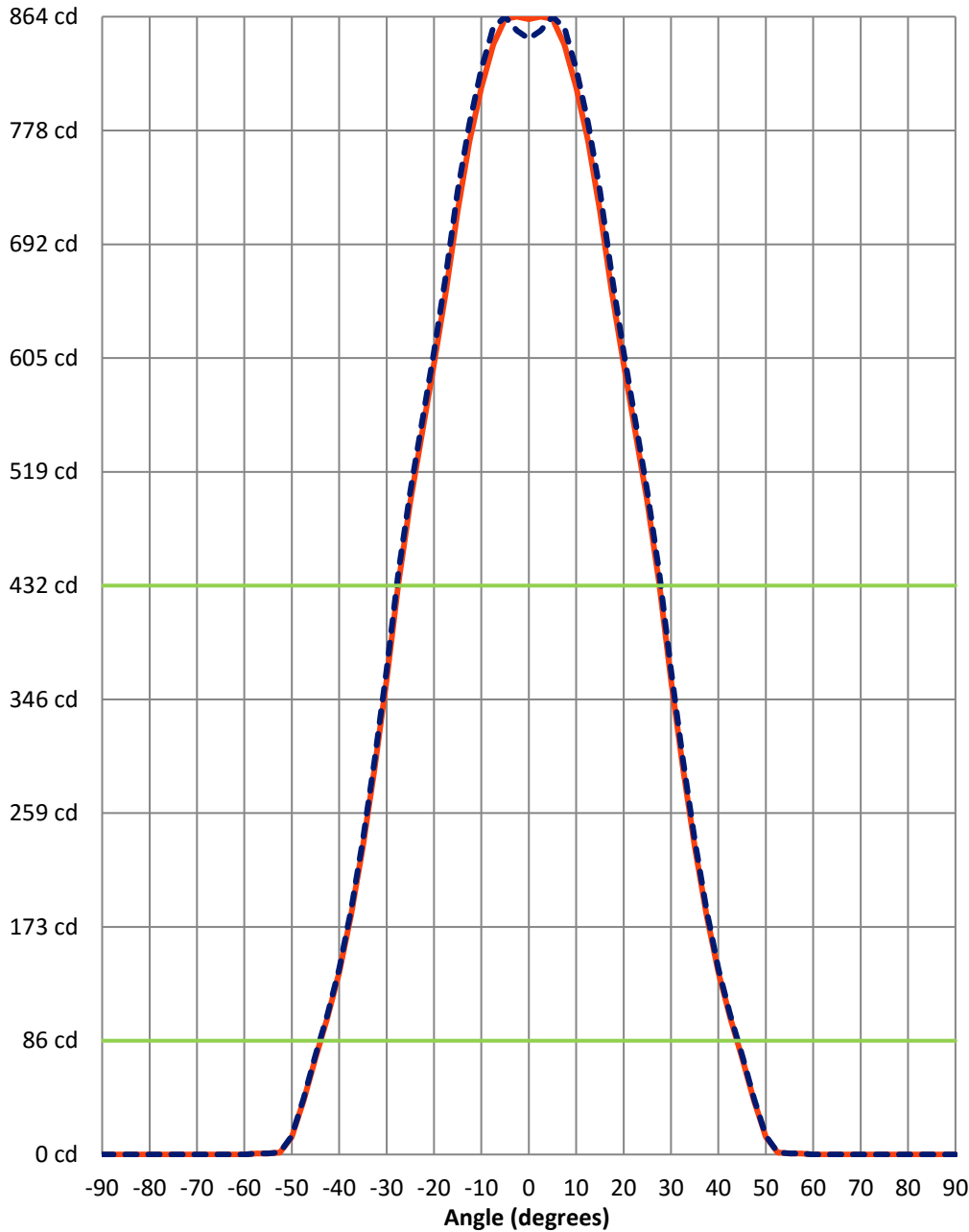
Luminous Intensity Polar Plot



— Vertical Distribution Through -5-Deg - - - Horizontal Distribution Through -2.5-Deg

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Luminous Intensity Plot



Beam:
 H Angle: 55.7°
 V Angle: 55.1°
 Lumens: 465
 Efficiency: 64.2%

Field:
 H Angle: 88.2°
 V Angle: 87.8°
 Lumens: 699.6
 Efficiency: 96.5%

Spill:
 Lumens: 25.2
 Efficiency: 3.5%

- Vertical Distribution through -5-Deg
- - Horizontal Distribution through -2.5-Deg



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 CATALOG NUMBER: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED3090-W-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: P220362 (CONVERTED FROM TYPE C PHOTOMETRY)
 CATALOG NUMBER: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED3090-W-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: P220362 (CONVERTED FROM TYPE C PHOTOMETRY)
 CATALOG NUMBER: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED3090-W-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	0	0
47.5°	0	0	0	0	0	0	0	0	0	0	1
45°	0	0	0	0	0	0	0	0	0	1	1
42.5°	0	0	0	0	0	0	0	0	1	1	1
40°	0	0	0	0	0	0	0	1	1	1	2
37.5°	0	0	0	0	0	0	1	1	1	2	9
35°	0	0	0	0	0	1	1	1	1	9	21
32.5°	0	0	0	0	0	1	1	1	6	17	37
30°	0	0	0	0	1	1	1	3	13	32	55
27.5°	0	0	0	0	1	1	1	8	24	47	73
25°	0	0	0	0	1	1	3	14	37	63	88
22.5°	0	0	0	1	1	1	7	24	49	77	102
20°	0	0	0	1	1	1	11	33	61	89	117
17.5°	0	0	0	1	1	3	16	42	72	100	130
15°	0	0	0	1	1	6	23	51	81	110	142
12.5°	0	0	1	1	1	9	29	59	89	120	156
10°	0	0	1	1	1	11	34	65	95	128	167
7.5°	0	0	1	1	1	12	38	70	100	134	176
5°	0	0	1	1	2	13	41	73	104	138	182
2.5°	0	0	1	1	2	14	43	75	106	141	186
0°	0	0	1	1	2	14	43	76	107	142	187
-2.5°	0	0	1	1	2	14	43	75	106	141	186
-5°	0	0	1	1	2	13	41	73	104	138	182
-7.5°	0	0	1	1	1	12	38	70	100	134	176
-10°	0	0	1	1	1	11	34	65	95	128	167
-12.5°	0	0	1	1	1	9	29	59	89	120	156
-15°	0	0	0	1	1	6	23	51	81	110	142
-17.5°	0	0	0	1	1	3	16	42	72	100	130
-20°	0	0	0	1	1	1	11	33	61	89	117



REPORT NUMBER: P220362 (CONVERTED FROM TYPE C PHOTOMETRY)
 CATALOG NUMBER: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED3090-W-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	0	1	1	1	7	24	49	77	102
-25°	0	0	0	0	1	1	3	14	37	63	88
-27.5°	0	0	0	0	1	1	1	8	24	47	73
-30°	0	0	0	0	1	1	1	3	13	32	55
-32.5°	0	0	0	0	0	1	1	1	6	17	37
-35°	0	0	0	0	0	1	1	1	1	9	21
-37.5°	0	0	0	0	0	0	1	1	1	2	9
-40°	0	0	0	0	0	0	0	1	1	1	2
-42.5°	0	0	0	0	0	0	0	0	1	1	1
-45°	0	0	0	0	0	0	0	0	0	1	1
-47.5°	0	0	0	0	0	0	0	0	0	0	1
-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: P220362 (CONVERTED FROM TYPE C PHOTOMETRY)
 CATALOG NUMBER: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED3090-W-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	0	0
57.5°	0	0	0	0	0	0	0	0	0	1	1
55°	0	0	0	0	0	1	1	1	1	1	1
52.5°	0	0	1	1	1	1	1	1	1	1	1
50°	1	1	1	1	1	1	1	3	6	9	11
47.5°	1	1	1	1	3	7	11	16	23	29	34
45°	1	1	3	8	14	24	33	42	51	59	65
42.5°	1	6	13	24	37	49	61	72	81	89	95
40°	9	17	32	47	63	77	89	100	110	120	128
37.5°	21	37	55	73	88	102	117	130	142	156	167
35°	39	59	78	96	113	130	148	167	183	200	214
32.5°	59	80	100	120	140	163	186	210	231	251	269
30°	78	100	122	145	173	201	229	258	285	309	330
27.5°	96	120	145	176	209	242	277	310	342	371	397
25°	113	140	173	209	246	287	327	366	403	438	464
22.5°	130	163	201	242	287	333	378	425	463	493	517
20°	148	186	229	277	327	378	432	475	510	539	565
17.5°	167	210	258	310	366	425	475	516	551	584	611
15°	183	231	285	342	403	463	510	551	590	626	661
12.5°	200	251	309	371	438	493	539	584	626	670	713
10°	214	269	330	397	464	517	565	611	661	713	757
7.5°	226	284	348	418	483	535	586	636	692	747	788
5°	234	294	360	434	496	548	601	655	717	770	811
2.5°	239	300	368	442	504	557	610	668	732	784	825
0°	241	303	371	445	506	560	613	672	737	788	830
-2.5°	239	300	368	442	504	557	610	668	732	784	825
-5°	234	294	360	434	496	548	601	655	717	770	811
-7.5°	226	284	348	418	483	535	586	636	692	747	788
-10°	214	269	330	397	464	517	565	611	661	713	757
-12.5°	200	251	309	371	438	493	539	584	626	670	713
-15°	183	231	285	342	403	463	510	551	590	626	661
-17.5°	167	210	258	310	366	425	475	516	551	584	611
-20°	148	186	229	277	327	378	432	475	510	539	565



REPORT NUMBER: P220362 (CONVERTED FROM TYPE C PHOTOMETRY)
 CATALOG NUMBER: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED3090-W-BK-L1-UNV

CANDELA DISTRIBUTION (continued):

	-35°	-32.5°	-30°	-27.5°	-25°	-22.5°	-20°	-17.5°	-15°	-12.5°	-10°
-22.5°	130	163	201	242	287	333	378	425	463	493	517
-25°	113	140	173	209	246	287	327	366	403	438	464
-27.5°	96	120	145	176	209	242	277	310	342	371	397
-30°	78	100	122	145	173	201	229	258	285	309	330
-32.5°	59	80	100	120	140	163	186	210	231	251	269
-35°	39	59	78	96	113	130	148	167	183	200	214
-37.5°	21	37	55	73	88	102	117	130	142	156	167
-40°	9	17	32	47	63	77	89	100	110	120	128
-42.5°	1	6	13	24	37	49	61	72	81	89	95
-45°	1	1	3	8	14	24	33	42	51	59	65
-47.5°	1	1	1	1	3	7	11	16	23	29	34
-50°	1	1	1	1	1	1	1	3	6	9	11
-52.5°	0	0	1	1	1	1	1	1	1	1	1
-55°	0	0	0	0	0	1	1	1	1	1	1
-57.5°	0	0	0	0	0	0	0	0	0	1	1
-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: P220362 (CONVERTED FROM TYPE C PHOTOMETRY)
 CATALOG NUMBER: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED3090-W-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°	0	0	0	0	0	0	0	0	0	0	0
57.5°	1	1	1	1	1	1	1	1	1	0	0
55°	1	1	1	1	1	1	1	1	1	1	1
52.5°	1	2	2	2	2	2	1	1	1	1	1
50°	12	13	14	14	14	13	12	11	9	6	3
47.5°	38	41	43	43	43	41	38	34	29	23	16
45°	70	73	75	76	75	73	70	65	59	51	42
42.5°	100	104	106	107	106	104	100	95	89	81	72
40°	134	138	141	142	141	138	134	128	120	110	100
37.5°	176	182	186	187	186	182	176	167	156	142	130
35°	226	234	239	241	239	234	226	214	200	183	167
32.5°	284	294	300	303	300	294	284	269	251	231	210
30°	348	360	368	371	368	360	348	330	309	285	258
27.5°	418	434	442	445	442	434	418	397	371	342	310
25°	483	496	504	506	504	496	483	464	438	403	366
22.5°	535	548	557	560	557	548	535	517	493	463	425
20°	586	601	610	613	610	601	586	565	539	510	475
17.5°	636	655	668	672	668	655	636	611	584	551	516
15°	692	717	732	737	732	717	692	661	626	590	551
12.5°	747	770	784	788	784	770	747	713	670	626	584
10°	788	811	825	830	825	811	788	757	713	661	611
7.5°	820	843	856	859	856	843	820	788	747	692	636
5°	843	863	864	863	864	863	843	811	770	717	655
2.5°	856	864	854	848	854	864	856	825	784	732	668
0°	859	863	848	846	848	863	859	830	788	737	672
-2.5°	856	864	854	848	854	864	856	825	784	732	668
-5°	843	863	864	863	864	863	843	811	770	717	655
-7.5°	820	843	856	859	856	843	820	788	747	692	636
-10°	788	811	825	830	825	811	788	757	713	661	611
-12.5°	747	770	784	788	784	770	747	713	670	626	584
-15°	692	717	732	737	732	717	692	661	626	590	551
-17.5°	636	655	668	672	668	655	636	611	584	551	516
-20°	586	601	610	613	610	601	586	565	539	510	475



REPORT NUMBER: P220362 (CONVERTED FROM TYPE C PHOTOMETRY)
 CATALOG NUMBER: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED3090-W-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°	535	548	557	560	557	548	535	517	493	463	425
-25°	483	496	504	506	504	496	483	464	438	403	366
-27.5°	418	434	442	445	442	434	418	397	371	342	310
-30°	348	360	368	371	368	360	348	330	309	285	258
-32.5°	284	294	300	303	300	294	284	269	251	231	210
-35°	226	234	239	241	239	234	226	214	200	183	167
-37.5°	176	182	186	187	186	182	176	167	156	142	130
-40°	134	138	141	142	141	138	134	128	120	110	100
-42.5°	100	104	106	107	106	104	100	95	89	81	72
-45°	70	73	75	76	75	73	70	65	59	51	42
-47.5°	38	41	43	43	43	41	38	34	29	23	16
-50°	12	13	14	14	14	13	12	11	9	6	3
-52.5°	1	2	2	2	2	2	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	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: P220362 (CONVERTED FROM TYPE C PHOTOMETRY)
 CATALOG NUMBER: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED3090-W-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°	0	0	0	0	0	0	0	0	0	0	0
55°	1	1	0	0	0	0	0	0	0	0	0
52.5°	1	1	1	1	1	0	0	0	0	0	0
50°	1	1	1	1	1	1	1	0	0	0	0
47.5°	11	7	3	1	1	1	1	1	0	0	0
45°	33	24	14	8	3	1	1	1	1	0	0
42.5°	61	49	37	24	13	6	1	1	1	1	0
40°	89	77	63	47	32	17	9	2	1	1	1
37.5°	117	102	88	73	55	37	21	9	2	1	1
35°	148	130	113	96	78	59	39	21	9	1	1
32.5°	186	163	140	120	100	80	59	37	17	6	1
30°	229	201	173	145	122	100	78	55	32	13	3
27.5°	277	242	209	176	145	120	96	73	47	24	8
25°	327	287	246	209	173	140	113	88	63	37	14
22.5°	378	333	287	242	201	163	130	102	77	49	24
20°	432	378	327	277	229	186	148	117	89	61	33
17.5°	475	425	366	310	258	210	167	130	100	72	42
15°	510	463	403	342	285	231	183	142	110	81	51
12.5°	539	493	438	371	309	251	200	156	120	89	59
10°	565	517	464	397	330	269	214	167	128	95	65
7.5°	586	535	483	418	348	284	226	176	134	100	70
5°	601	548	496	434	360	294	234	182	138	104	73
2.5°	610	557	504	442	368	300	239	186	141	106	75
0°	613	560	506	445	371	303	241	187	142	107	76
-2.5°	610	557	504	442	368	300	239	186	141	106	75
-5°	601	548	496	434	360	294	234	182	138	104	73
-7.5°	586	535	483	418	348	284	226	176	134	100	70
-10°	565	517	464	397	330	269	214	167	128	95	65
-12.5°	539	493	438	371	309	251	200	156	120	89	59
-15°	510	463	403	342	285	231	183	142	110	81	51
-17.5°	475	425	366	310	258	210	167	130	100	72	42
-20°	432	378	327	277	229	186	148	117	89	61	33



REPORT NUMBER: P220362 (CONVERTED FROM TYPE C PHOTOMETRY)
 CATALOG NUMBER: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED3090-W-BK-L1-UNV

CANDELA DISTRIBUTION (continued):

	20°	22.5°	25°	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°
-22.5°	378	333	287	242	201	163	130	102	77	49	24
-25°	327	287	246	209	173	140	113	88	63	37	14
-27.5°	277	242	209	176	145	120	96	73	47	24	8
-30°	229	201	173	145	122	100	78	55	32	13	3
-32.5°	186	163	140	120	100	80	59	37	17	6	1
-35°	148	130	113	96	78	59	39	21	9	1	1
-37.5°	117	102	88	73	55	37	21	9	2	1	1
-40°	89	77	63	47	32	17	9	2	1	1	1
-42.5°	61	49	37	24	13	6	1	1	1	1	0
-45°	33	24	14	8	3	1	1	1	1	0	0
-47.5°	11	7	3	1	1	1	1	1	0	0	0
-50°	1	1	1	1	1	1	1	0	0	0	0
-52.5°	1	1	1	1	1	0	0	0	0	0	0
-55°	1	1	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: P220362 (CONVERTED FROM TYPE C PHOTOMETRY)
 CATALOG NUMBER: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED3090-W-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°	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°	1	0	0	0	0	0	0	0	0	0	0
35°	1	1	0	0	0	0	0	0	0	0	0
32.5°	1	1	0	0	0	0	0	0	0	0	0
30°	1	1	1	0	0	0	0	0	0	0	0
27.5°	1	1	1	0	0	0	0	0	0	0	0
25°	3	1	1	0	0	0	0	0	0	0	0
22.5°	7	1	1	1	0	0	0	0	0	0	0
20°	11	1	1	1	0	0	0	0	0	0	0
17.5°	16	3	1	1	0	0	0	0	0	0	0
15°	23	6	1	1	0	0	0	0	0	0	0
12.5°	29	9	1	1	1	0	0	0	0	0	0
10°	34	11	1	1	1	0	0	0	0	0	0
7.5°	38	12	1	1	1	0	0	0	0	0	0
5°	41	13	2	1	1	0	0	0	0	0	0
2.5°	43	14	2	1	1	0	0	0	0	0	0
0°	43	14	2	1	1	0	0	0	0	0	0
-2.5°	43	14	2	1	1	0	0	0	0	0	0
-5°	41	13	2	1	1	0	0	0	0	0	0
-7.5°	38	12	1	1	1	0	0	0	0	0	0
-10°	34	11	1	1	1	0	0	0	0	0	0
-12.5°	29	9	1	1	1	0	0	0	0	0	0
-15°	23	6	1	1	0	0	0	0	0	0	0
-17.5°	16	3	1	1	0	0	0	0	0	0	0
-20°	11	1	1	1	0	0	0	0	0	0	0



REPORT NUMBER: P220362 (CONVERTED FROM TYPE C PHOTOMETRY)
 CATALOG NUMBER: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED3090-W-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°	7	1	1	1	0	0	0	0	0	0	0
-25°	3	1	1	0	0	0	0	0	0	0	0
-27.5°	1	1	1	0	0	0	0	0	0	0	0
-30°	1	1	1	0	0	0	0	0	0	0	0
-32.5°	1	1	0	0	0	0	0	0	0	0	0
-35°	1	1	0	0	0	0	0	0	0	0	0
-37.5°	1	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: P220362 (CONVERTED FROM TYPE C PHOTOMETRY)
 CATALOG NUMBER: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED3090-W-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: P220362 (CONVERTED FROM TYPE C PHOTOMETRY)
 CATALOG NUMBER: 1002-[A1, P1, S1, SU1]-[RW, RI]-LED3090-W-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)