

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: LUMIERE

Report Number: G2-2408-198-3

Luminaire Tested: 1237C-RD-X-12LEDG2-UNV/12-CS

Test Date: 2024-08-16

Test Information

Test Method: LM-79-2019
Report Number: G2-2408-198-3
Test Lab: Cooper Lighting Solutions
Test Date: 2024-08-16
Issue Date: 8/16/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: LUMIERE
Catalog Number: 1237C-RD-X-12LEDG2-UNV/12-CS
Description: Rio 1237 with cross blades
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 346.7 lumens
Efficiency: N/A
Efficacy: 39.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.19 / 1.21
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

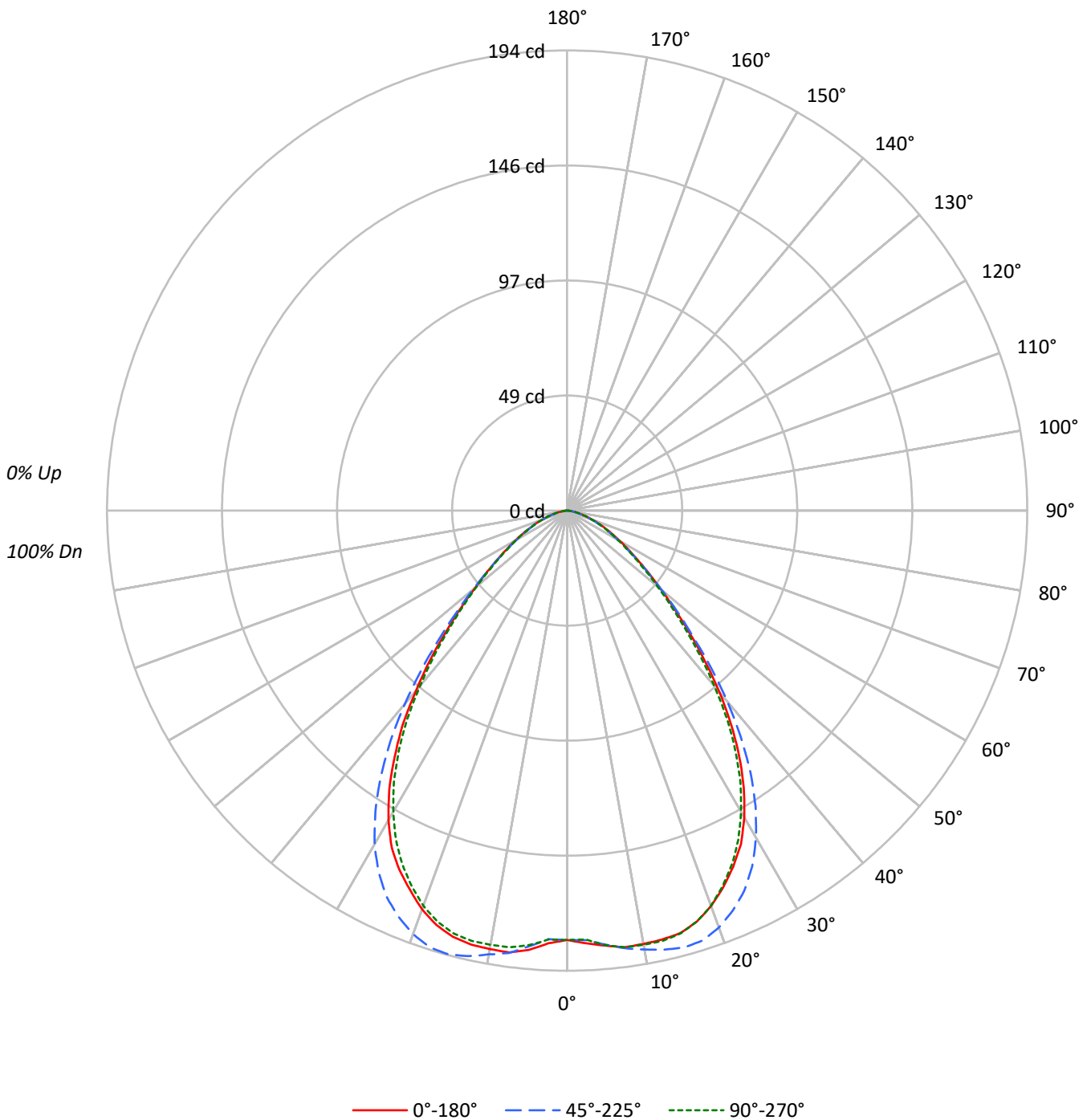
Input Watts (W): 8.83
Input Voltage (V): 120.0
Input Current (Ain): 0.0746
Voltage Rise (V): NR
Power Factor: 0.9863
Total Harmonic Distortion (THDi): 12.4%
Frequency (hertz): 60
Stabilization Time: 0.5 HR
Operation Time: 3 HR
Ambient Temperature (°C): 24.6
Test Distance: 24 FT



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Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20					
RC	80					70					50					30					10					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89					89			
2	104	97	92	87	101	95	91	86	92	88	84	89	86	83	86	83	81	79					79			
3	96	88	81	76	94	86	80	75	84	78	74	81	77	73	79	75	72	70					70			
4	90	80	73	67	88	79	72	67	76	70	66	74	69	65	72	68	64	62					62			
5	84	73	65	60	82	72	65	59	70	63	59	68	62	58	66	61	58	56					56			
6	78	67	59	53	76	66	58	53	64	58	53	62	57	52	61	56	52	50					50			
7	73	61	54	48	71	60	53	48	59	53	48	58	52	48	56	51	47	46					46			
8	68	56	49	44	67	56	49	44	55	48	44	53	48	43	52	47	43	41					41			
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	43	40	38					38			
10	61	49	42	37	59	48	41	37	47	41	37	46	41	37	46	40	36	35					35			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	11809	11809	11809	11809	11809
5°	12057	12024	12044	12076	12175
10°	12289	12448	12315	12587	12435
15°	12455	12880	12468	13083	12563
20°	12316	12990	12310	13191	12421
25°	11921	12727	11842	12950	12036
30°	11247	11993	11044	12234	11345
35°	10075	10728	9852	10911	10099
40°	8500	8942	8210	9062	8448
45°	6735	6892	6477	6984	6643
50°	5227	5278	5024	5247	5126
55°	4140	4061	3970	4027	4049
60°	3353	3223	3197	3197	3288
65°	2763	2609	2624	2609	2640
70°	2155	2079	2098	2079	2098
75°	1613	1487	1613	1538	1638
80°	1090	939	1090	977	1090
85°	674	599	674	599	749

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 35°
 Vertical Angle: 45°
 Luminance: 7049 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	17.7	5.1
10°-20°	53.1	15.3
20°-30°	79.1	22.8
30°-40°	81.6	23.5
40°-50°	57.7	16.6
50°-60°	32.5	9.4
60°-70°	17.1	4.9
70°-80°	6.8	2.0
80°-90°	1.1	0.3
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	149.9	43.2
0°-40°	231.6	66.8
0°-60°	321.7	92.8
0°-90°	346.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	346.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	181	181	181	181	181	
5°	184	184	184	184	186	18
15°	184	191	185	194	186	52
25°	166	177	164	180	167	76
35°	126	135	124	137	127	78
45°	73	75	70	76	72	57
55°	36	36	35	35	36	33
65°	18	17	17	17	17	18
75°	6	6	6	6	6	7
85°	1	1	1	1	1	1
90°	0	0	0	0	0	



TEST NUMBER: G2-2408-198-3

CATALOG NUMBER: 1237C-RD-X-12LEDG2-UNV/12-CS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	181.0	181.0	181.0	181.0	181.0	181.0	181.0	181.0	181.0	181.0	181.0
2.5°	182.6	179.5	182.4	181.4	182.1	181.3	179.8	180.2	182.4	181.7	181.0
5°	184.1	181.0	184.3	183.4	184.3	183.6	182.2	182.7	185.0	184.3	183.9
7.5°	185.7	182.6	186.0	185.5	186.9	186.1	184.6	184.8	187.2	186.6	185.7
10°	185.5	182.5	186.5	186.7	188.4	187.9	186.3	185.9	187.5	186.8	185.9
12.5°	185.2	182.4	186.9	187.8	190.1	189.6	187.6	186.9	187.7	186.6	185.8
15°	184.4	181.7	186.6	188.4	191.0	190.7	188.6	187.1	187.4	185.6	184.6
17.5°	181.7	178.7	184.9	187.2	190.1	190.0	187.7	185.7	184.9	182.8	181.7
20°	177.4	174.8	181.4	184.2	187.4	187.1	184.8	182.3	181.0	178.2	177.3
22.5°	171.9	169.5	176.8	179.9	182.7	182.5	180.3	177.7	175.6	172.2	171.3
25°	165.6	163.4	171.1	174.4	177.5	176.8	174.6	171.8	169.4	165.7	164.5
27.5°	158.6	156.4	164.1	167.2	169.7	169.0	167.7	164.3	161.6	157.3	156.3
30°	149.3	147.2	155.3	157.8	160.2	159.2	157.6	154.9	151.8	147.6	146.6
32.5°	138.6	137.1	144.6	146.9	148.5	147.8	146.1	143.6	140.4	136.7	135.9
35°	126.5	124.9	132.1	134.0	135.5	134.7	133.0	130.8	127.7	124.3	123.7
37.5°	113.5	112.3	118.4	119.8	122.0	120.2	118.9	116.8	114.3	111.2	110.7
40°	99.8	98.4	103.9	104.6	106.3	105.0	103.9	102.0	99.7	97.3	96.4
42.5°	85.9	84.9	89.1	89.5	91.2	89.7	88.9	87.2	85.5	83.8	82.9
45°	73.0	71.8	75.1	75.1	76.4	74.7	74.8	73.3	71.9	70.4	70.2
47.5°	61.3	60.2	62.5	63.0	63.8	62.8	62.3	61.1	60.2	59.2	59.1
50°	51.5	50.5	52.0	51.7	52.6	52.0	51.7	50.7	50.0	50.0	49.5
52.5°	43.3	42.6	43.3	43.4	43.9	42.8	42.9	42.2	42.1	41.6	41.6
55°	36.4	35.7	36.0	36.1	36.3	35.7	35.7	35.1	35.0	35.2	34.9
57.5°	30.5	30.0	30.2	30.1	30.4	29.8	29.8	29.1	29.7	29.6	29.2
60°	25.7	25.2	25.3	25.2	25.3	24.7	24.9	24.3	24.6	24.9	24.5
62.5°	21.4	20.9	21.0	20.8	21.0	20.5	20.7	20.3	20.8	21.0	20.5
65°	17.9	17.4	17.3	17.2	17.3	16.9	17.1	16.8	17.2	17.4	17.0
67.5°	14.4	14.0	14.0	13.9	14.0	13.6	14.0	13.5	14.0	14.1	13.9
70°	11.3	11.1	11.0	11.1	11.1	10.9	11.1	10.8	11.1	11.3	11.0
72.5°	8.7	8.6	8.5	8.6	8.5	8.2	8.6	8.3	8.6	8.8	8.7
75°	6.4	6.2	6.2	6.1	6.2	5.9	6.2	5.9	6.2	6.5	6.4
77.5°	4.6	4.5	4.3	4.3	4.2	4.0	4.3	4.1	4.4	4.7	4.6
80°	2.9	2.7	2.6	2.6	2.6	2.5	2.6	2.5	2.8	2.9	2.9
82.5°	1.7	1.7	1.6	1.5	1.5	1.4	1.5	1.4	1.7	1.7	1.8
85°	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.9	0.9
87.5°	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: G2-2408-198-3

CATALOG NUMBER: 1237C-RD-X-12LEDG2-UNV/12-CS

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	181.0	181.0	181.0	181.0	181.0	181.0	181.0	181.0	181.0	181.0
2.5°	180.7	179.7	181.4	181.8	180.9	180.5	182.1	182.3	181.9	182.6
5°	183.4	182.9	185.1	185.3	184.4	183.9	185.8	185.6	185.2	185.9
7.5°	185.5	185.4	187.8	188.8	188.1	187.1	188.7	188.0	187.5	187.9
10°	185.7	186.2	189.7	190.8	190.0	189.2	190.1	188.7	187.5	187.7
12.5°	185.7	187.2	191.5	193.1	192.4	191.0	191.7	189.0	187.5	187.4
15°	184.8	187.0	192.3	194.2	193.7	192.1	192.1	188.7	186.4	186.0
17.5°	182.2	185.2	191.0	193.3	193.0	191.3	190.9	186.7	183.8	183.2
20°	177.4	181.6	187.6	190.2	190.0	188.2	187.5	183.0	179.6	178.9
22.5°	171.5	176.5	182.8	185.5	185.5	183.8	183.2	178.4	174.1	173.1
25°	165.1	170.4	176.7	179.6	179.9	178.2	177.9	172.4	168.4	167.2
27.5°	156.9	162.9	169.2	171.7	172.0	170.6	170.2	165.6	160.6	160.2
30°	147.2	153.0	159.8	162.1	162.4	161.1	161.1	156.4	151.3	150.6
32.5°	136.0	142.4	148.1	150.4	150.5	150.0	149.4	145.2	140.1	139.6
35°	123.7	130.0	135.8	136.9	137.0	137.1	136.5	132.5	127.6	126.8
37.5°	110.6	116.3	121.5	122.3	122.3	122.1	121.8	118.2	113.4	113.9
40°	96.7	101.6	106.1	106.5	106.4	106.6	106.3	103.3	99.1	99.2
42.5°	83.1	87.0	90.4	90.8	90.7	90.7	90.4	88.8	85.0	85.5
45°	70.1	73.1	75.7	75.8	75.7	75.9	75.6	74.6	71.5	72.0
47.5°	58.9	60.9	62.8	62.9	62.8	62.9	62.7	62.0	60.1	60.7
50°	49.1	50.5	52.0	51.8	51.7	51.9	51.7	51.4	50.0	50.5
52.5°	41.2	42.0	43.0	42.9	42.8	42.8	42.8	42.6	42.0	42.6
55°	34.3	34.8	35.6	35.4	35.4	35.4	35.3	35.5	35.1	35.6
57.5°	28.9	29.1	29.7	29.9	29.6	29.4	29.6	29.6	29.5	30.0
60°	24.2	24.4	24.7	24.6	24.5	24.5	24.5	24.8	24.7	25.2
62.5°	20.1	20.3	20.6	20.5	20.3	20.3	20.4	20.6	20.6	21.1
65°	16.6	16.8	17.0	17.0	16.9	16.7	16.7	17.0	17.0	17.1
67.5°	13.4	13.6	13.9	13.8	13.6	13.5	13.6	13.8	13.8	14.2
70°	10.5	10.9	11.0	11.0	10.9	10.8	10.8	10.9	10.9	11.0
72.5°	8.1	8.4	8.5	8.6	8.4	8.3	8.4	8.3	8.5	8.8
75°	6.0	6.1	6.2	6.2	6.1	6.1	6.0	6.2	6.3	6.5
77.5°	4.2	4.3	4.3	4.2	4.2	4.3	4.3	4.4	4.5	4.8
80°	2.6	2.7	2.7	2.6	2.6	2.7	2.7	2.7	2.9	2.9
82.5°	1.6	1.6	1.6	1.5	1.5	1.6	1.5	1.6	1.7	1.8
85°	0.7	0.9	0.8	0.9	0.8	0.8	0.8	0.8	0.9	1.0
87.5°	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.4	0.3	0.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)