

Scaled data based on original data using
LM-46-04 Photometric Testing of Indoor Luminaires Using High Intensity Discharge or
Incandescent Filament Lamps (Reaffirmed 2012)

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: LUMIERE

Report Number: 246p106

Luminaire Tested: **1510-INC18-12V-CS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-46-04
Report Number: 246p106
Test Lab: METALUX RESEARCH LABS
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMIERE
Catalog Number: 1510-INC18-12V-CS
Description: MAUI 1510 SERIES PATHWAY LUMINAIRE
Light Source: ONE - INC18/12V/CLEAR - 200 LUMENS - 18 WATTS
Ballast/Driver: -

Summary

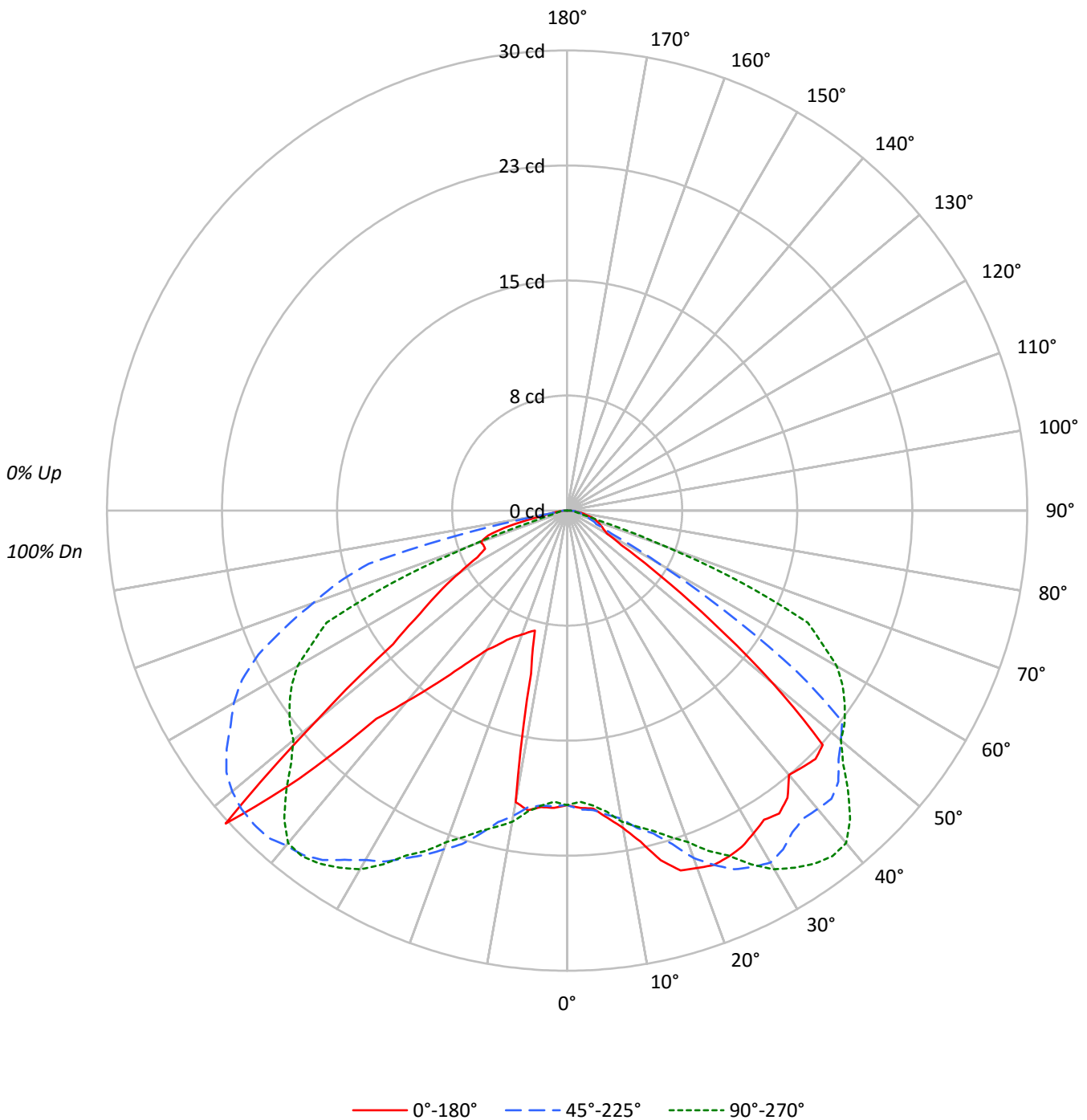
Lumens per Lamp: 200 (1 lamp)
Luminaire Lumens: 90.9 lumens
Efficiency: 45.4%
Efficacy: 7.6 lumens/watt
Spacing Criteria (0/90/45): 1.51 / 1.96 / 1.95
Luminous Opening: Rectangular w/ Sides (W: 0.08' x L: 0.08' x H: 0.08')
CIE Type: Direct

Input Watts (W): 12
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



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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	0
RCR																		
0	54	54	54	54	53	53	53	53	50	50	50	48	48	48	46	46	46	45
1	50	48	46	44	48	47	45	43	45	43	42	43	42	41	41	40	39	38
2	45	41	38	36	44	40	38	35	39	36	34	37	35	34	36	34	33	32
3	41	36	32	29	40	35	32	29	34	31	28	33	30	28	31	29	27	26
4	37	32	27	24	36	31	27	24	30	26	24	29	26	24	28	25	23	22
5	34	28	24	21	33	27	23	20	26	23	20	26	22	20	25	22	20	19
6	31	25	21	18	30	24	20	18	24	20	17	23	20	17	22	19	17	16
7	29	22	18	15	28	22	18	15	21	18	15	21	17	15	20	17	15	14
8	27	20	16	13	26	20	16	13	19	16	13	19	15	13	18	15	13	12
9	25	18	14	12	24	18	14	12	17	14	12	17	14	12	17	14	12	11
10	23	17	13	11	22	16	13	11	16	13	10	16	13	10	15	12	10	10

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	29760	29760	29760
5°	27900	27614	27757
10°	28098	27563	25823
15°	29868	27337	10251
20°	29991	27815	10400
25°	29043	28926	10847
30°	27573	30637	11914
35°	26822	31273	14246
40°	24755	31136	17823
45°	25099	28387	27072
50°	19254	25635	23545
55°	8236	24596	13021
60°	3404	23034	9191
65°	2916	20178	6882
70°	2540	8223	7256
75°	2025	1266	5062
80°	1338	803	1338
85°	715	572	572



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	1.9	2.1	0.9
10°-20°	6.0	6.7	3.0
20°-30°	11.0	12.1	5.5
30°-40°	16.5	18.2	8.3
40°-50°	21.1	23.2	10.5
50°-60°	18.0	19.8	9.0
60°-70°	11.6	12.8	5.8
70°-80°	4.2	4.6	2.1
80°-90°	0.5	0.6	0.3
90°-100°	0.0	0.0	0.0
100°-110°	0.0	0.0	0.0
110°-120°	0.0	0.0	0.0
120°-130°	0.0	0.0	0.0
130°-140°	0.0	0.0	0.0
140°-150°	0.0	0.0	0.0
150°-160°	0.0	0.0	0.0
160°-170°	0.0	0.0	0.0
170°-180°	0.0	0.0	0.0
0°-30°	19.0	20.9	9.5
0°-40°	35.5	39.0	17.7
0°-60°	74.5	82.0	37.3
0°-90°	90.9	100.0	45.4
90°-120°	0.0	0.0	0.0
90°-150°	0.0	0.0	0.0
90°-180°	0.0	0.0	0.0
0°-180°	90.9	100.0	45.4

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	19	19	19	19	19	
5°	20	20	19	19	19	2
15°	24	22	22	22	8	7
25°	25	26	25	25	9	11
35°	24	26	28	28	13	15
45°	23	25	26	29	25	17
55°	7	18	22	27	12	7
65°	2	2	17	22	6	2
75°	2	1	1	13	4	2
85°	0	0	0	0	0	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2
2.5°	19.4	19.4	19.3	19.5	19.5	19.5	19.5	19.3	19.2	19.1	19.0
5°	19.5	19.5	19.5	19.5	19.7	19.6	19.9	19.7	19.6	19.5	19.3
7.5°	20.2	20.2	20.1	20.1	20.1	20.0	20.3	20.4	20.4	20.0	19.8
10°	21.0	21.1	21.0	21.0	20.8	20.4	20.5	20.7	21.0	20.8	20.6
12.5°	22.1	22.1	21.9	21.6	21.5	21.2	20.8	20.8	21.3	21.3	21.1
15°	23.6	23.6	23.4	23.0	22.4	21.8	21.6	21.1	21.8	21.8	21.6
17.5°	24.6	24.7	24.6	24.3	23.9	22.8	22.3	21.3	22.1	22.3	22.3
20°	24.8	24.9	24.9	24.9	24.9	24.1	22.9	21.8	22.4	22.9	23.0
22.5°	25.0	25.1	25.0	25.1	25.5	25.0	23.8	22.4	22.7	23.7	24.0
25°	24.9	25.0	25.0	25.2	25.7	25.8	24.7	23.1	23.0	24.3	24.8
27.5°	24.7	24.7	24.7	25.0	25.6	26.2	25.4	23.6	23.5	24.9	26.0
30°	24.3	24.5	24.6	25.0	25.5	26.5	26.1	23.9	24.0	25.5	27.0
32.5°	23.9	24.2	24.4	24.9	25.3	26.2	26.2	23.9	23.8	26.2	27.6
35°	24.1	24.0	24.2	24.3	25.2	25.6	26.2	23.6	23.5	26.6	28.1
37.5°	23.6	23.6	23.7	23.8	24.9	25.3	26.4	23.3	23.4	26.9	28.4
40°	22.5	22.5	23.4	24.1	24.7	25.4	26.5	23.0	23.2	27.1	28.3
42.5°	22.7	22.4	23.2	23.6	24.3	25.5	26.1	22.3	22.8	26.7	27.3
45°	22.9	22.8	23.1	22.8	23.6	25.0	25.4	21.5	22.2	25.7	25.9
47.5°	22.6	22.4	22.9	22.0	22.8	24.0	24.3	20.5	21.5	24.8	24.4
50°	17.5	17.5	18.7	19.7	21.9	23.3	23.1	19.5	20.8	23.9	23.3
52.5°	11.9	11.9	13.2	14.8	18.1	22.6	22.4	18.7	20.1	23.1	22.8
55°	7.4	7.6	8.3	10.0	13.1	18.3	21.5	18.2	19.6	22.4	22.1
57.5°	4.2	4.4	4.7	5.8	8.0	12.2	17.3	17.6	19.3	22.1	21.3
60°	3.0	3.0	2.9	3.2	4.3	7.0	11.0	13.9	18.5	21.4	20.3
62.5°	2.7	2.7	2.7	2.7	2.6	3.3	6.0	8.6	15.4	19.8	18.7
65°	2.5	2.4	2.5	2.4	2.2	2.1	2.6	4.6	9.5	15.6	17.3
67.5°	2.3	2.3	2.3	2.2	2.0	1.9	1.7	2.1	4.6	9.5	12.4
70°	2.1	2.1	2.1	2.0	1.8	1.6	1.5	1.4	1.8	4.2	6.8
72.5°	1.9	1.9	1.9	1.8	1.6	1.4	1.3	1.2	1.1	1.5	2.3
75°	1.6	1.6	1.6	1.6	1.4	1.2	1.1	1.0	1.0	1.0	1.0
77.5°	1.2	1.3	1.3	1.2	1.1	1.0	0.9	0.8	0.8	0.8	0.8
80°	1.0	1.0	1.1	1.2	0.9	0.8	0.7	0.7	0.7	0.7	0.6
82.5°	0.7	0.7	0.8	0.8	0.7	0.6	0.5	0.5	0.5	0.6	0.5
85°	0.5	0.6	0.6	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4
87.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	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



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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2
2.5°	19.1	19.1	19.0	19.1	19.3	19.2	19.3	19.3	19.2	19.4
5°	19.4	19.4	19.3	19.3	19.3	19.4	19.4	19.3	19.4	19.4
7.5°	19.8	19.9	19.8	19.5	19.5	19.5	19.5	19.5	19.7	19.7
10°	20.7	20.8	20.2	20.1	20.2	19.7	19.1	18.8	19.3	19.3
12.5°	21.5	21.5	21.2	21.2	20.8	20.4	19.7	17.8	12.9	10.9
15°	22.1	21.9	22.3	21.8	21.8	21.5	20.4	17.8	9.7	8.1
17.5°	22.9	22.6	22.9	22.8	22.8	22.4	21.4	18.4	9.7	8.3
20°	23.7	23.5	23.4	23.9	23.5	23.1	22.4	19.0	10.0	8.6
22.5°	24.4	24.4	24.2	24.4	24.3	24.0	23.4	19.9	10.2	8.9
25°	24.9	25.1	25.3	25.0	25.0	25.0	24.7	21.0	10.8	9.3
27.5°	25.3	25.5	26.2	25.5	25.8	25.7	26.1	22.8	11.6	9.9
30°	26.3	25.8	26.5	26.2	26.3	26.8	27.6	25.3	13.0	10.5
32.5°	26.8	26.3	26.7	26.9	27.0	27.7	28.8	29.5	15.3	11.5
35°	26.9	26.7	27.3	27.5	27.8	28.3	30.4	35.2	19.4	12.8
37.5°	27.2	27.3	27.6	28.0	28.3	28.8	31.9	41.8	23.6	14.4
40°	27.8	28.2	27.8	28.3	28.5	29.4	33.8	49.0	24.9	16.2
42.5°	27.6	28.8	28.2	28.5	28.9	29.7	34.7	52.8	26.9	18.4
45°	27.1	28.7	28.2	28.7	28.9	29.6	34.7	55.5	32.8	24.7
47.5°	26.3	27.6	27.9	28.5	28.8	29.3	33.0	47.6	35.6	30.2
50°	25.5	26.3	27.6	28.0	28.5	28.8	31.0	35.7	22.7	21.4
52.5°	24.6	25.3	27.1	27.4	28.0	28.0	29.4	30.6	15.5	14.3
55°	23.6	24.7	26.3	26.8	27.1	26.8	27.7	28.4	12.6	11.7
57.5°	22.5	24.1	25.3	25.9	26.0	25.5	25.9	26.9	10.5	9.9
60°	21.0	23.3	24.3	24.8	25.1	24.2	24.1	25.1	9.0	8.1
62.5°	19.1	21.5	23.0	23.6	23.9	23.0	22.4	23.2	7.4	6.6
65°	16.9	19.5	21.4	21.8	22.2	21.5	20.8	19.6	5.5	5.9
67.5°	14.3	17.7	19.1	19.7	19.9	19.6	19.3	7.6	4.7	5.9
70°	8.3	15.0	16.6	17.0	17.6	17.6	17.6	3.3	4.5	6.0
72.5°	3.3	8.4	13.6	14.9	15.7	15.7	15.8	2.7	4.3	5.4
75°	1.2	2.8	6.5	11.1	13.4	11.7	8.2	2.0	3.1	4.0
77.5°	0.9	1.1	1.8	3.9	6.6	3.8	2.2	1.3	1.6	1.8
80°	0.7	0.9	0.9	0.9	1.0	1.1	1.0	0.8	0.9	1.0
82.5°	0.6	0.6	0.7	0.7	0.8	0.7	0.7	0.6	0.6	0.7
85°	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4
87.5°	0.4	0.3	0.4	0.4	0.4	0.4	0.4	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

(END OF REPORT)