

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: H45012

Luminaire Tested: **1502-INC18-12**

Issue Date: 3/3/2020

Test Information

Test Method: LM-46-04
Report Number: H45012
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMIERE
Catalog Number: 1502-INC18-12
Description: 3" DIA STEM MOUNTED DOWNLIGHT
Light Source: -
S-8 ANSI 1142 18 WATTS 264 LUMENS
1142 CLEAR DC BAYONET BASE 12 VOLT
Ballast/Driver: -

Summary

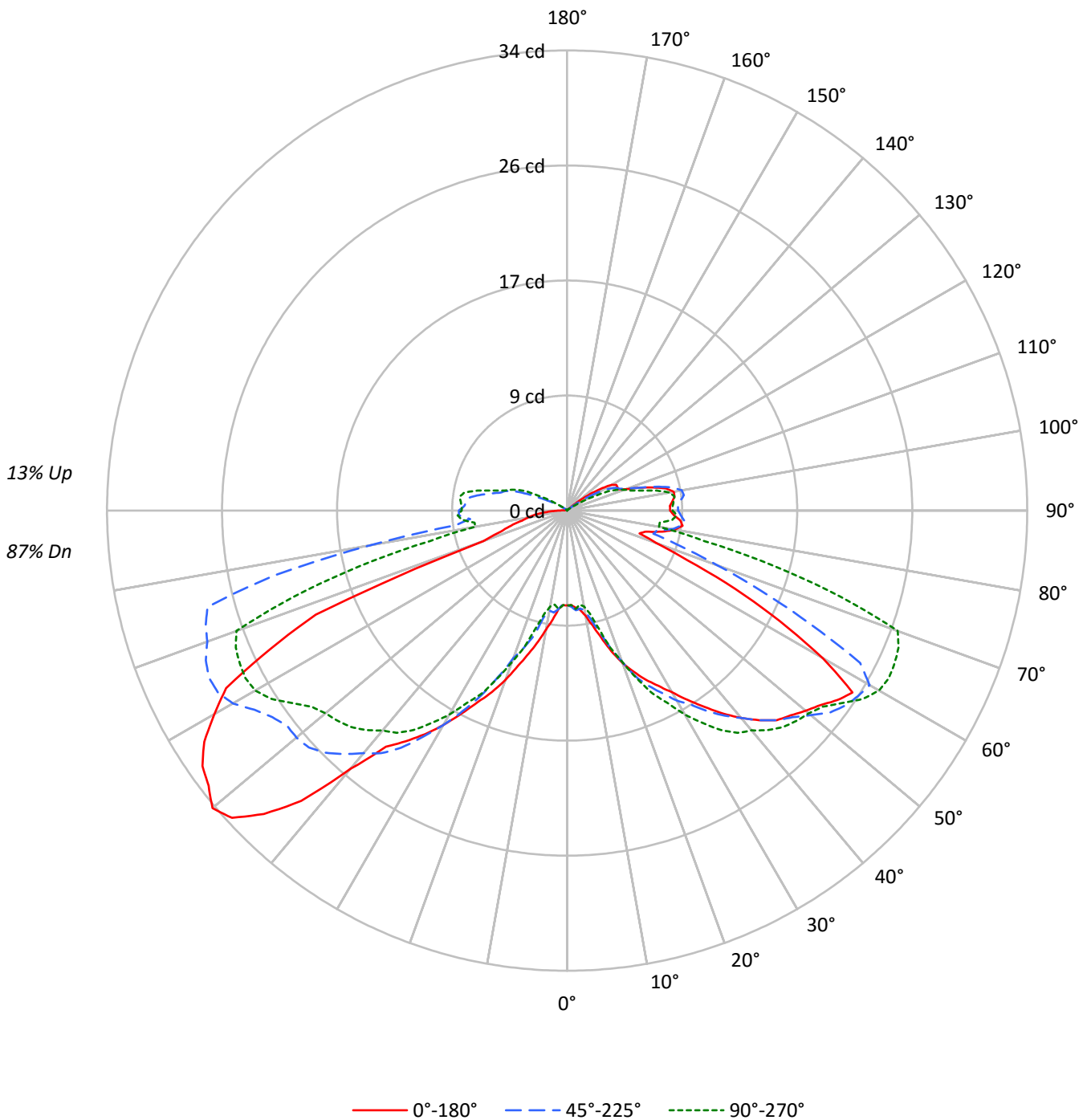
Lumens per Lamp: 264 (1 lamp)
Luminaire Lumens: 127.1 lumens
Efficiency: 48.2%
Efficacy: 7.1 lumens/watt
Spacing Criteria (0/90/45): 3.38 / 3.37 / 3.08
Luminous Opening: (L: 0 ' x W: -0.26 ' x H: 0 '
CIE Type: Semi-Direct

Input Watts (W): 18
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			
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	56	56	56	56	54	54	54	54	50	50	50	47	47	47	44	44	44	42	42	42
1	49	46	43	41	47	44	42	39	41	39	37	38	36	35	35	34	33	31	31	31
2	43	38	34	31	41	37	33	30	34	31	28	31	29	26	29	27	25	23	23	23
3	39	32	27	24	37	31	27	23	29	25	22	26	23	21	24	22	19	18	18	18
4	35	28	23	19	33	27	22	18	25	21	17	23	19	16	21	18	16	14	14	14
5	31	24	19	15	30	23	18	15	21	17	14	20	16	13	18	15	13	11	11	11
6	28	21	16	13	27	20	16	12	19	15	12	17	14	11	16	13	10	9	9	9
7	26	19	14	11	25	18	13	10	17	13	10	15	12	9	14	11	9	8	8	8
8	24	17	12	9	23	16	12	9	15	11	8	14	10	8	13	10	7	6	6	6
9	22	15	11	8	21	15	10	8	14	10	7	13	9	7	12	9	6	5	5	5
10	21	14	10	7	20	13	9	7	12	9	6	11	8	6	11	8	6	5	5	5

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	Luminous shape not found,		
5°	reference photometric report, or contact		
10°	the photometric lab for calculations.		
15°			
20°			
25°			
30°			
35°			
40°			
45°			
50°			
55°			
60°			
65°			
70°			
75°			
80°			
85°			



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	0.7	0.6	0.3
10°-20°	2.8	2.2	1.1
20°-30°	6.7	5.3	2.6
30°-40°	12.1	9.5	4.6
40°-50°	18.4	14.4	7.0
50°-60°	23.3	18.4	8.8
60°-70°	23.4	18.4	8.9
70°-80°	15.7	12.3	5.9
80°-90°	8.1	6.4	3.1
90°-100°	7.2	5.6	2.7
100°-110°	5.2	4.1	2.0
110°-120°	2.6	2.0	1.0
120°-130°	0.8	0.6	0.3
130°-140°	0.1	0.1	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°	10.2	8.0	3.9
0°-40°	22.3	17.6	8.5
0°-60°	64.0	50.4	24.3
0°-90°	111.2	87.5	42.1
90°-120°	15.0	11.8	5.7
90°-150°	15.9	12.5	6.0
90°-180°	16.0	12.6	6.1
0°-180°	127.1	100.0	48.2

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	7	7	7	7	7	
5°	7	7	7	7	7	1
15°	10	9	9	10	11	3
25°	14	14	15	15	16	6
35°	18	18	20	21	21	11
45°	22	22	23	25	32	17
55°	24	25	25	27	33	21
65°	14	20	27	29	24	14
75°	6	7	16	28	4	7
85°	8	9	8	7	2	7
90°	8	8	8	8	1	4
95°	8	8	8	8	0	6
105°	7	7	6	5	0	7
115°	4	4	3	2	0	4
125°	2	1	1	0	0	2
135°	0	0	0	0	0	0
145°	0	0	0	0	0	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
2.5°	7.0	7.1	7.1	7.0	7.0	6.9	6.9	6.9	7.0
5°	7.2	7.3	7.4	7.3	7.3	7.3	7.3	7.2	7.3
7.5°	7.4	7.4	7.3	7.2	7.0	7.0	7.6	7.8	8.1
10°	7.9	7.9	7.5	7.5	7.2	7.3	7.5	8.8	8.9
12.5°	8.7	8.6	8.3	8.2	7.8	8.2	8.1	9.2	9.9
15°	9.7	9.6	9.3	9.4	9.0	9.0	9.6	9.7	10.9
17.5°	10.9	10.9	10.6	10.5	10.6	10.7	10.6	10.1	12.0
20°	12.0	12.0	11.9	11.7	11.9	12.6	11.6	10.5	13.3
22.5°	12.9	13.0	13.3	13.0	13.4	14.1	13.3	11.3	14.5
25°	13.8	14.0	14.3	14.2	14.9	15.7	15.1	12.7	15.6
27.5°	14.6	14.8	15.2	15.4	16.0	17.8	16.7	13.6	16.9
30°	15.5	15.8	16.2	16.7	17.4	19.9	18.3	14.2	18.3
32.5°	16.6	16.9	17.0	17.6	18.6	20.7	19.8	15.2	19.6
35°	17.7	18.0	18.1	18.4	19.8	21.4	21.4	17.0	20.8
37.5°	18.9	19.1	19.1	19.3	20.7	22.5	22.6	19.3	22.0
40°	20.0	20.0	20.0	20.3	21.2	23.8	23.4	21.1	24.9
42.5°	21.0	21.0	21.0	21.2	22.0	24.6	24.4	23.5	29.1
45°	21.9	21.9	21.9	22.3	22.6	24.7	25.3	25.4	31.7
47.5°	22.4	22.7	22.6	23.2	23.0	24.4	25.9	26.7	33.6
50°	23.0	23.6	23.5	23.8	23.3	24.5	26.1	27.6	34.2
52.5°	23.6	24.2	24.5	24.0	23.8	25.1	26.1	27.8	33.4
55°	24.4	24.9	25.1	24.8	24.8	26.2	26.6	27.7	32.9
57.5°	25.0	25.4	25.5	25.5	25.9	27.0	27.4	27.6	31.8
60°	21.8	23.8	25.8	26.1	26.6	27.5	28.5	28.0	30.1
62.5°	17.7	19.5	24.4	26.4	26.8	27.6	29.1	28.6	28.4
65°	13.7	15.6	19.8	26.0	26.7	27.6	29.2	28.8	24.2
67.5°	9.6	11.4	15.5	21.6	26.5	27.0	28.9	28.8	20.1
70°	7.0	8.5	11.8	17.1	26.0	26.8	28.3	28.3	6.6
72.5°	5.6	6.6	8.8	13.4	21.2	26.6	28.0	27.6	5.1
75°	6.0	6.4	6.6	9.7	15.9	22.3	27.5	27.1	4.3
77.5°	7.2	7.6	6.8	6.5	10.4	15.9	22.2	26.6	3.4
80°	8.1	8.5	7.9	7.1	6.9	9.8	14.7	17.5	2.9
82.5°	8.6	8.9	8.5	8.1	6.9	6.7	8.3	8.3	2.4
85°	8.4	8.7	8.7	8.6	7.8	7.4	7.2	2.4	1.8
87.5°	7.9	8.3	8.4	8.5	8.1	8.1	8.0	1.4	1.1
90°	7.6	8.0	8.2	8.2	7.8	7.8	8.0	1.0	0.6
92.5°	7.6	8.0	8.2	8.2	7.8	7.6	7.6	0.7	0.3
95°	7.8	8.3	8.4	8.4	7.9	7.6	7.5	0.7	0.2
97.5°	8.0	8.6	8.7	8.6	8.0	7.4	7.3	0.7	0.2
100°	8.0	8.5	8.6	8.2	7.7	6.7	6.6	0.6	0.2
102.5°	7.5	7.9	7.9	7.3	6.8	5.4	5.8	0.6	0.2
105°	6.6	7.0	6.8	6.2	5.7	4.1	5.1	0.5	0.2
107.5°	5.6	5.8	5.6	5.2	4.9	2.9	4.8	0.4	0.2
110°	4.6	4.8	4.7	4.6	4.5	2.2	4.2	0.4	0.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	4.1	4.2	4.2	4.4	4.0	1.6	3.2	0.3	0.1
115°	4.1	4.0	4.0	4.0	3.4	1.3	2.2	0.2	0.1
117.5°	4.1	3.8	3.5	3.1	2.4	1.0	1.5	0.2	0.1
120°	3.8	3.4	2.8	2.3	1.6	0.7	1.0	0.2	0.0
122.5°	3.1	2.7	2.0	1.4	1.0	0.5	0.6	0.1	0.0
125°	2.3	1.9	1.3	0.9	0.6	0.4	0.4	0.1	0.0
127.5°	1.5	1.2	0.7	0.4	0.4	0.2	0.3	0.1	0.0
130°	0.9	0.6	0.4	0.2	0.2	0.2	0.2	0.1	0.0
132.5°	0.4	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.0
135°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.0
137.5°	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0
140°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0
142.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0
145°	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0
147.5°	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0
150°	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
152.5°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)