

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:

Luminaire Tested: **613-50MR16-12-NSP**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-46-04  
Report Number:  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMIERE  
Catalog Number: 613-50MR16-12-NSP  
Description:  
Light Source: Q50MR16/C/NSP15°-EXT  
BARE LAMP DATA FOR 613  
Ballast/Driver: -

**Summary**

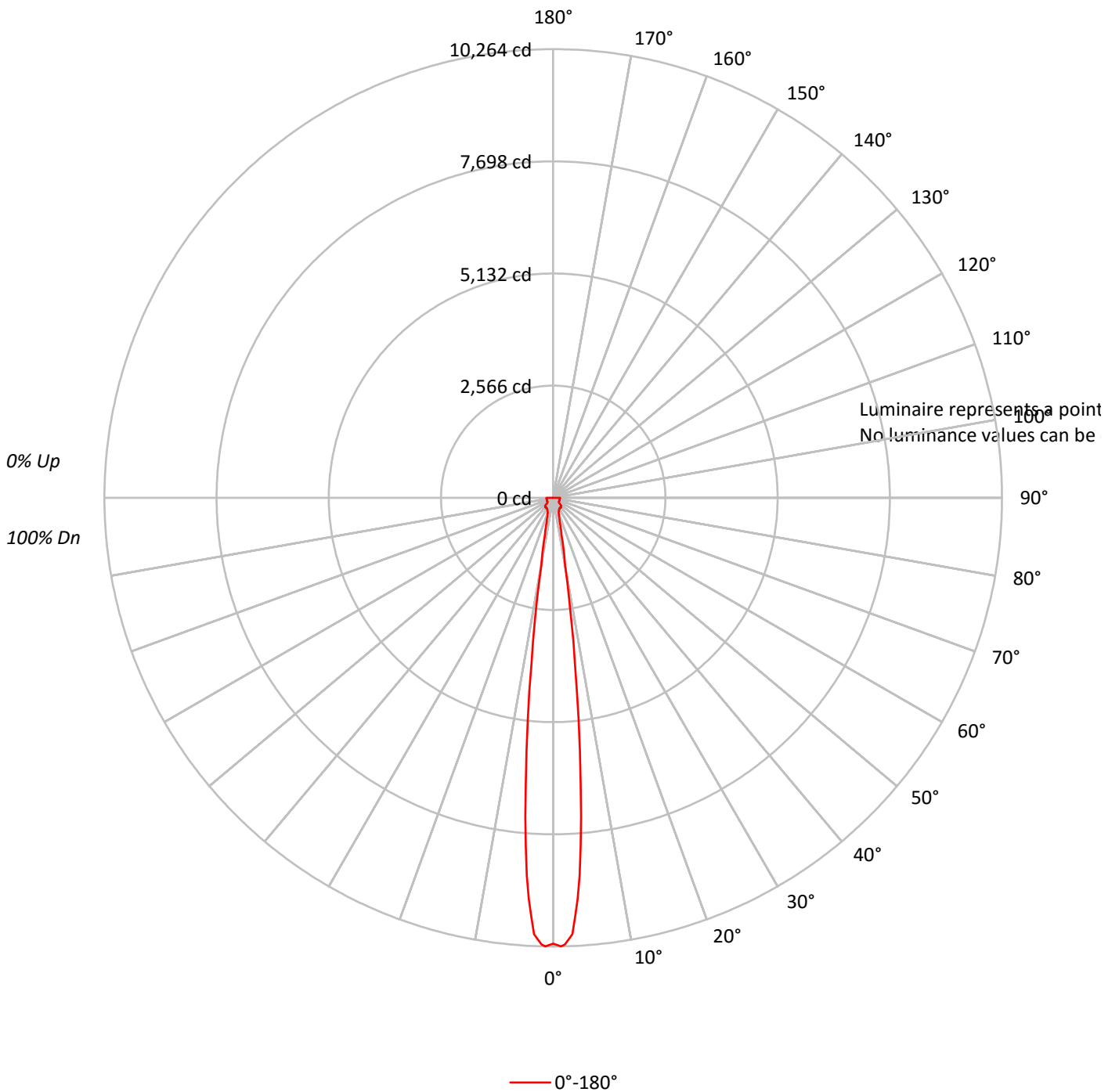
Lumens per Lamp: 1815 (1 lamp)  
Luminaire Lumens: 1809.0 lumens  
Efficiency: 99.7%  
Efficacy: -  
Spacing Criteria (0/90/45): 0.23 / 0.23 / 0.22  
Luminous Opening: Point Source (0' x 0' x 0')  
CIE Type: Direct

Input Watts (W): 0  
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	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	107	102	97	92	104	99	95	91	95	91	88		91	88	85		87	85	83	80
2	99	91	84	78	96	89	82	77	85	80	75		82	77	74		79	75	72	70
3	92	82	75	69	90	81	74	68	78	72	67		75	70	66		73	68	65	62
4	86	76	68	62	84	74	67	61	72	66	61		70	64	60		68	63	59	57
5	82	70	63	57	80	69	62	57	67	61	56		66	60	55		64	59	55	53
6	78	66	59	53	76	65	58	53	64	57	52		62	56	52		61	56	52	50
7	74	63	55	50	72	62	55	50	60	54	50		59	53	49		58	53	49	47
8	71	59	52	47	69	59	52	47	58	52	47		57	51	47		55	50	47	45
9	68	57	50	45	67	56	50	45	55	49	45		54	49	45		53	48	45	43
10	65	54	48	44	64	54	48	44	53	47	43		52	47	43		52	47	43	42

**AVERAGE LUMINANCE (cd/sqm):**





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**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	486.1	26.9	26.8
10°-20°	187.9	10.4	10.4
20°-30°	145.2	8.0	8.0
30°-40°	174.9	9.7	9.6
40°-50°	186.5	10.3	10.3
50°-60°	143.7	7.9	7.9
60°-70°	153.8	8.5	8.5
70°-80°	162.9	9.0	9.0
80°-90°	168.0	9.3	9.3
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°	819.1	45.3	45.1
0°-40°	994.0	54.9	54.8
0°-60°	1324.2	73.2	73.0
0°-90°	1809.0	100.0	99.7
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°	1809.0	100.0	99.7

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	10200	
5°	7320	486
15°	585	188
25°	313	145
35°	276	175
45°	260	187
55°	157	144
65°	154	154
75°	154	163
85°	153	168
90°	157	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	10200
1.25°	10280
2.5°	9994
3.75°	8991
5°	7320
6.25°	5443
7.5°	3814
8.75°	2536
10°	1579
12.5°	887
15°	585
17.5°	430
20°	365
22.5°	331
25°	313
27.5°	295
30°	284
35°	276
40°	278
45°	260
50°	170
55°	157
60°	157
65°	154
70°	155
75°	154
80°	153
85°	153
90°	157

(END OF REPORT)