

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: HALO

Report Number: H32016

Luminaire Tested: **M200-123P**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-46-04  
Report Number: H32016  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: M200-123P  
Description: HALO 13" SQ. RECESSED HID  
SPECULAR REFLECTOR REGRESSED FRESNEL LENS  
Light Source: M100/C/U/MED 100 WATTS 8000 LUMENS  
ED-17 COATED METAL HALIDE  
Ballast/Driver: -

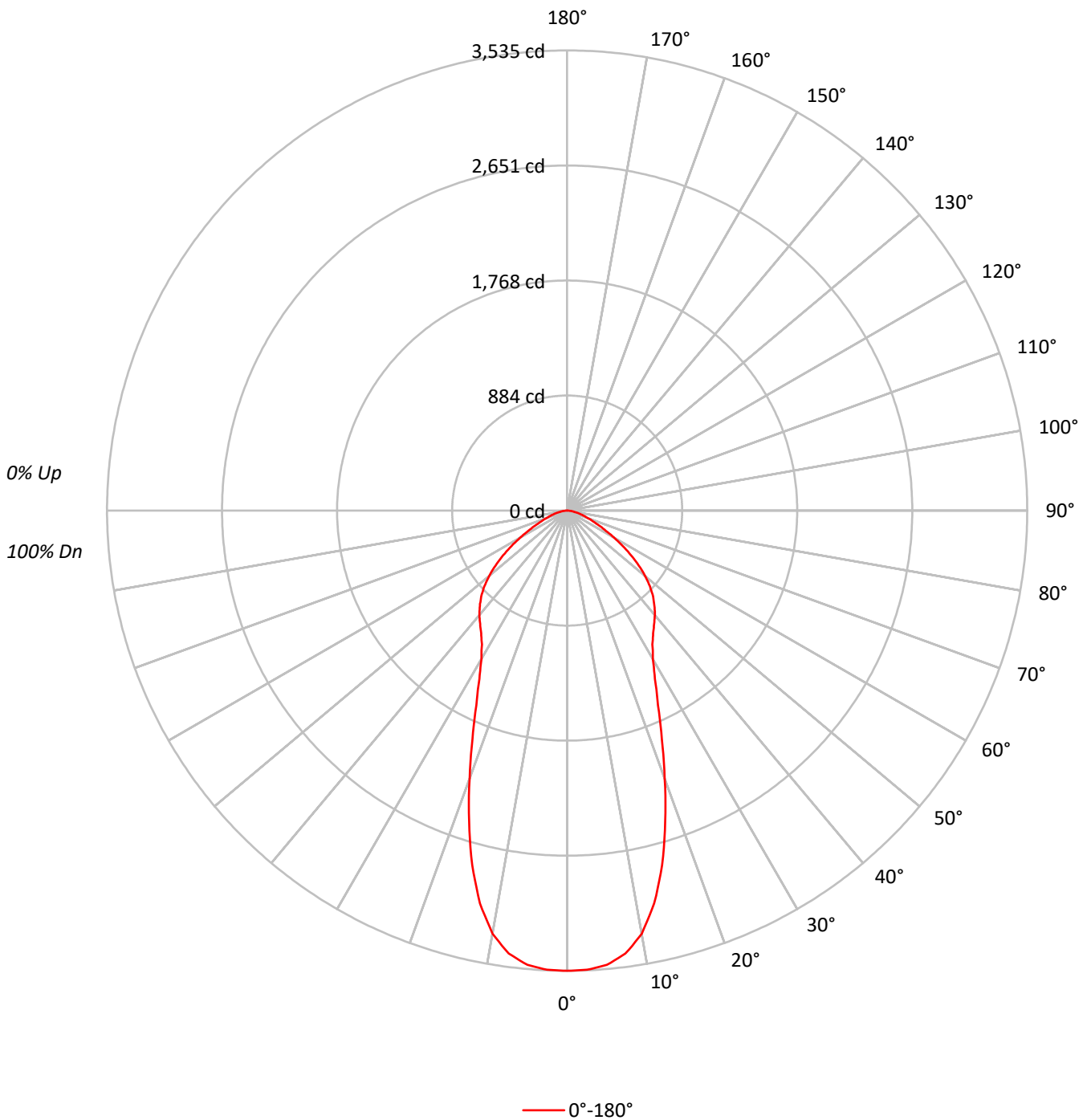
**Summary**

Lumens per Lamp: 8000 (1 lamp)  
Luminaire Lumens: 4262.8 lumens  
Efficiency: 53.3%  
Efficacy: 37.1 lumens/watt  
Spacing Criteria (0/90/45): 0.74 / 0.74 / 0.8  
Luminous Opening: Rectangular (W 0.8' x L: 0.8' x H: 0')  
CIE Type: Direct

Input Watts (W): 115  
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

TEST NUMBER: H32016  
CATALOG NUMBER: M200-123P

### 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	63	63	63	63	62	62	62	62	59	59	59	57	57	57	54	54	54	53
1	59	57	55	54	58	56	54	53	54	52	51	52	51	50	50	49	48	47
2	55	51	48	46	54	50	48	45	49	46	44	47	45	43	45	44	42	41
3	51	46	43	40	50	46	42	40	44	41	39	43	40	38	41	39	38	37
4	47	42	38	35	46	41	38	35	40	37	34	39	36	34	38	36	34	33
5	44	38	34	31	43	38	34	31	37	33	31	36	33	31	35	32	30	29
6	41	35	31	28	40	35	31	28	34	30	28	33	30	28	32	30	27	26
7	39	33	28	26	38	32	28	26	31	28	25	31	28	25	30	27	25	24
8	36	30	26	23	36	30	26	23	29	26	23	29	25	23	28	25	23	22
9	34	28	24	22	34	28	24	22	27	24	21	27	24	21	26	23	21	20
10	33	26	23	20	32	26	22	20	26	22	20	25	22	20	25	22	20	19

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

	0°
0°	59454
5°	59141
10°	56358
15°	49102
20°	39197
25°	30638
30°	25577
35°	23632
40°	23009
45°	22192
50°	20487
55°	17593
60°	13993
65°	10626
70°	8409
75°	6693
80°	5424
85°	4245



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	328.1	7.7	4.1
10°-20°	774.7	18.2	9.7
20°-30°	770.6	18.1	9.6
30°-40°	727.2	17.1	9.1
40°-50°	714.5	16.8	8.9
50°-60°	535.2	12.6	6.7
60°-70°	274.3	6.4	3.4
70°-80°	112.6	2.6	1.4
80°-90°	25.6	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°	1873.4	43.9	23.4
0°-40°	2600.6	61.0	32.5
0°-60°	3850.3	90.3	48.1
0°-90°	4262.8	100.0	53.3
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°	4262.8	100.0	53.3

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	3535	
5°	3503	328
15°	2820	775
25°	1651	771
35°	1151	727
45°	933	714
55°	600	535
65°	267	274
75°	103	113
85°	22	25
90°	0	1
95°	0	0
105°	0	0
115°	0	0
125°	0	0
135°	0	0
145°	0	0
155°	0	0
165°	0	0
175°	0	0
180°	0	0



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	3535
2.5°	3531
5°	3503
7.5°	3433
10°	3300
12.5°	3091
15°	2820
17.5°	2507
20°	2190
22.5°	1900
25°	1651
27.5°	1458
30°	1317
32.5°	1219
35°	1151
37.5°	1098
40°	1048
42.5°	993
45°	933
47.5°	863
50°	783
52.5°	694
55°	600
57.5°	507
60°	416
62.5°	336
65°	267
67.5°	215
70°	171
72.5°	134
75°	103
77.5°	77
80°	56
82.5°	37
85°	22
87.5°	7
90°	0
92.5°	0
95°	0
97.5°	0
100°	0
102.5°	0
105°	0
107.5°	0
110°	0



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**CANDELA DISTRIBUTION (continued):**

	0°
112.5°	0
115°	0
117.5°	0
120°	0
122.5°	0
125°	0
127.5°	0
130°	0
132.5°	0
135°	0
137.5°	0
140°	0
142.5°	0
145°	0
147.5°	0
150°	0
152.5°	0
155°	0
157.5°	0
160°	0
162.5°	0
165°	0
167.5°	0
170°	0
172.5°	0
175°	0
177.5°	0
180°	0

(END OF REPORT)