

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: H32025

Luminaire Tested: **M200-20P**

Issue Date: 3/3/2020



Test Information

Test Method: LM-46-04
Report Number: H32025
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: M200-20P
Description: HALO 13" SQ. RECESSED HID
SPECULAR REFLECTOR ALBALITE LENS
Light Source: LU50/D/MED 50 WATTS 3800 LUMENS
ED-17 DIFFUSED HPS
Ballast/Driver: -

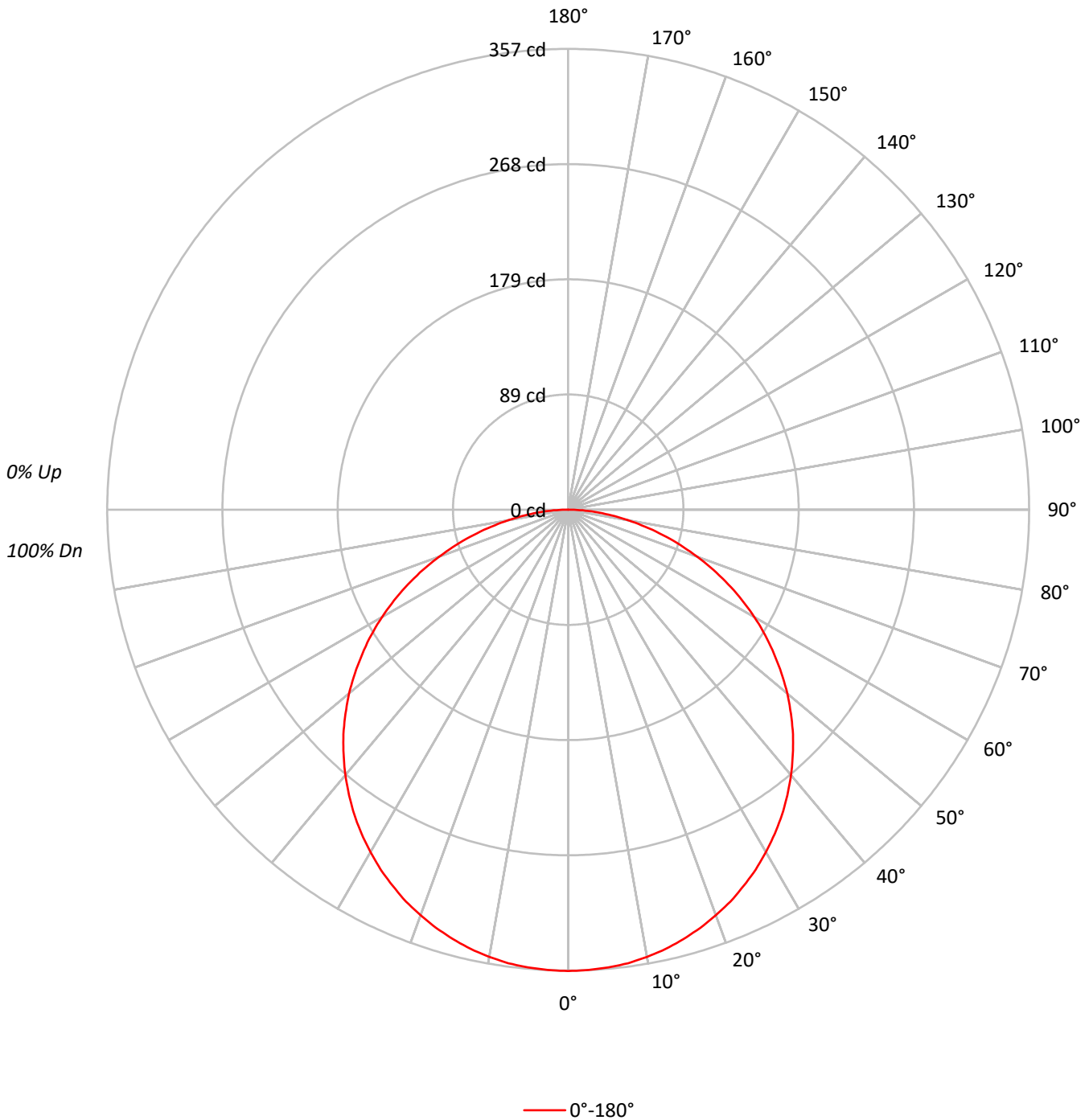
Summary

Lumens per Lamp: 3800 (1 lamp)
Luminaire Lumens: 1064.1 lumens
Efficiency: 28.0%
Efficacy: 17.7 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.4
Luminous Opening: Rectangular (W 0.72' x L: 0.72' x H: 0')
CIE Type: Direct

Input Watts (W): 60
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: H32025
CATALOG NUMBER: M200-20P

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	33	33	33	33	33	33	33	33	31	31	31	30	30	30	29	29	29	28
1	30	29	28	27	30	28	27	26	27	26	25	26	25	25	25	24	24	23
2	28	25	23	22	27	25	23	21	24	22	21	23	21	20	22	21	20	19
3	25	22	20	18	24	22	19	18	21	19	17	20	18	17	19	18	17	16
4	23	19	17	15	22	19	17	15	18	16	15	18	16	14	17	16	14	14
5	21	17	15	13	20	17	15	13	16	14	13	16	14	13	15	14	12	12
6	19	16	13	11	19	15	13	11	15	13	11	14	12	11	14	12	11	10
7	18	14	12	10	17	14	12	10	13	11	10	13	11	10	13	11	10	9
8	17	13	10	9	16	13	10	9	12	10	9	12	10	9	12	10	9	8
9	16	12	9	8	15	12	9	8	11	9	8	11	9	8	11	9	8	7
10	15	11	9	7	14	11	9	7	10	8	7	10	8	7	10	8	7	7

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	7421
5°	7418
10°	7415
15°	7403
20°	7387
25°	7368
30°	7341
35°	7318
40°	7278
45°	7230
50°	7155
55°	7045
60°	6918
65°	6721
70°	6441
75°	6105
80°	5644
85°	5337



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	33.8	3.2	0.9
10°-20°	97.2	9.1	2.6
20°-30°	148.3	13.9	3.9
30°-40°	180.5	17.0	4.8
40°-50°	189.7	17.8	5.0
50°-60°	174.0	16.4	4.6
60°-70°	135.3	12.7	3.6
70°-80°	80.4	7.6	2.1
80°-90°	24.8	2.3	0.7
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°	279.4	26.3	7.4
0°-40°	459.9	43.2	12.1
0°-60°	823.7	77.4	21.7
0°-90°	1064.1	100.0	28.0
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°	1064.1	100.0	28.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	357	
5°	356	34
15°	344	97
25°	322	148
35°	289	181
45°	246	190
55°	195	174
65°	137	135
75°	76	80
85°	22	23
90°	0	2
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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CATALOG NUMBER: M200-20P

CANDELA DISTRIBUTION (FULL):

0°	
0°	357.4
2.5°	356.9
5°	355.9
7.5°	354.4
10°	351.7
12.5°	348.6
15°	344.4
17.5°	339.8
20°	334.3
22.5°	328.5
25°	321.6
27.5°	314.4
30°	306.2
32.5°	297.7
35°	288.7
37.5°	278.8
40°	268.5
42.5°	257.5
45°	246.2
47.5°	233.9
50°	221.5
52.5°	208.2
55°	194.6
57.5°	181.0
60°	166.6
62.5°	151.9
65°	136.8
67.5°	121.7
70°	106.1
72.5°	91.1
75°	76.1
77.5°	61.0
80°	47.2
82.5°	33.8
85°	22.4
87.5°	11.3
90°	0.0
92.5°	0.0
95°	0.0
97.5°	0.0
100°	0.0
102.5°	0.0
105°	0.0
107.5°	0.0
110°	0.0



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CANDELA DISTRIBUTION (continued):

	0°
112.5°	0.0
115°	0.0
117.5°	0.0
120°	0.0
122.5°	0.0
125°	0.0
127.5°	0.0
130°	0.0
132.5°	0.0
135°	0.0
137.5°	0.0
140°	0.0
142.5°	0.0
145°	0.0
147.5°	0.0
150°	0.0
152.5°	0.0
155°	0.0
157.5°	0.0
160°	0.0
162.5°	0.0
165°	0.0
167.5°	0.0
170°	0.0
172.5°	0.0
175°	0.0
177.5°	0.0
180°	0.0

(END OF REPORT)