

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: H24059

Luminaire Tested: **H1F-110P**

Issue Date: 3/3/2020

Test Information

Test Method: LM-46-04
Report Number: H24059
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: H1F-110P
Description: HALO 8" SQUARE RECESSED DOWNLIGHT
WHITE REFLECTOR - ALBALITE LENS
Light Source: (2) 18WQT 18 WATTS 1250 LUMENS
10MM COMPACT FLUORESCENT
Ballast/Driver: -

Summary

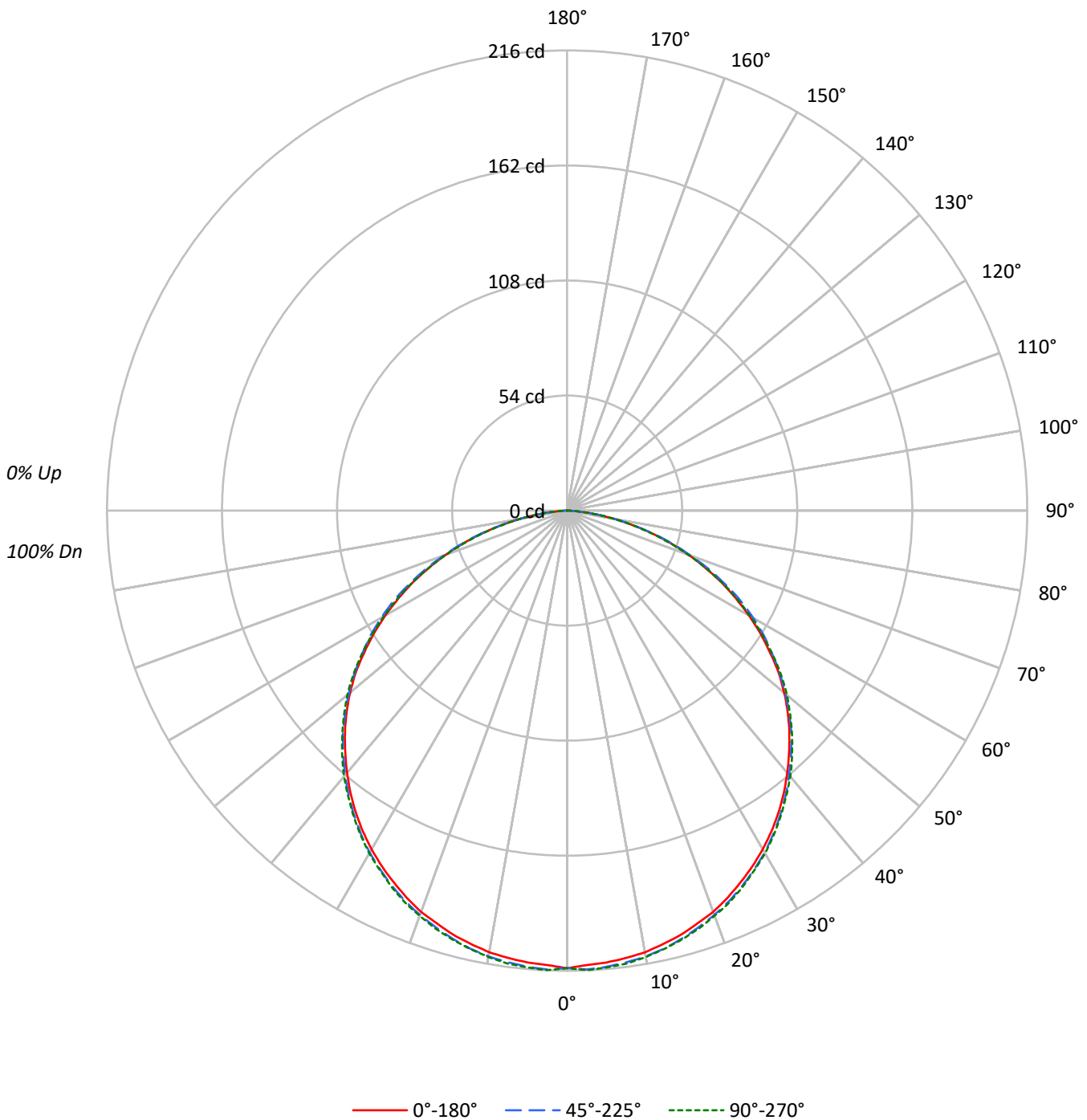
Lumens per Lamp: 1250 (2 lamps)
Luminaire Lumens: 629.4 lumens
Efficiency: 25.2%
Efficacy: 13.4 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.28 / 1.4
Luminous Opening: (L: 0 ' x W: 0.64 ' x H: 0 '
CIE Type: Direct

Input Watts (W): 47
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	30	30	30	30	29	29	29	29	28	28	28	27	27	27	26	26	26	25
1	27	26	25	24	27	26	25	24	25	24	23	24	23	22	23	22	22	21
2	25	23	21	20	24	22	21	19	21	20	19	21	19	18	20	19	18	18
3	23	20	18	16	22	20	18	16	19	17	16	18	17	16	17	16	15	15
4	21	18	15	14	20	17	15	14	17	15	13	16	15	13	16	14	13	13
5	19	16	13	12	18	15	13	12	15	13	12	14	13	11	14	12	11	11
6	18	14	12	10	17	14	12	10	13	12	10	13	11	10	13	11	10	9
7	16	13	11	9	16	13	11	9	12	10	9	12	10	9	12	10	9	8
8	15	12	10	8	15	12	9	8	11	9	8	11	9	8	11	9	8	7
9	14	11	9	7	14	11	9	7	10	8	7	10	8	7	10	8	7	7
10	13	10	8	7	13	10	8	7	9	8	6	9	8	6	9	8	6	6

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
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°	20.4	3.2	0.8
10°-20°	58.6	9.3	2.3
20°-30°	89.4	14.2	3.6
30°-40°	108.8	17.3	4.4
40°-50°	114.4	18.2	4.6
50°-60°	104.8	16.7	4.2
60°-70°	79.8	12.7	3.2
70°-80°	43.8	7.0	1.8
80°-90°	9.4	1.5	0.4
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
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0°-30°	168.3	26.7	6.7
0°-40°	277.2	44.0	11.1
0°-60°	496.4	78.9	19.9
0°-90°	629.4	100.0	25.2
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°	629.4	100.0	25.2

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	215	215	215	215	215	
5°	213	214	215	214	215	20
15°	206	207	208	208	208	58
25°	193	193	194	194	195	89
35°	173	174	174	174	175	108
45°	148	148	149	148	149	114
55°	116	117	118	117	118	104
65°	80	81	82	80	80	79
75°	41	42	42	41	41	44
85°	6	7	7	7	7	9
90°	0	0	0	0	0	0
95°	0	0	0	0	0	0
105°	0	0	0	0	0	0
115°	0	0	0	0	0	0
125°	0	0	0	0	0	0
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°
0°	214.8	214.8	214.8	214.8	214.8
2.5°	213.5	214.4	215.6	214.8	215.9
5°	212.9	213.8	214.9	214.4	215.2
7.5°	211.8	212.7	213.8	213.1	214.4
10°	210.5	211.3	212.5	211.6	212.8
12.5°	208.4	209.4	210.6	209.9	210.7
15°	206.2	206.9	208.0	207.5	208.4
17.5°	203.2	204.2	205.1	204.6	205.7
20°	200.5	201.1	202.0	201.4	202.4
22.5°	196.7	197.4	198.5	198.1	199.1
25°	192.6	193.4	194.4	193.8	194.9
27.5°	188.3	189.1	190.0	189.4	190.3
30°	183.6	184.4	185.4	184.7	185.8
32.5°	178.5	179.0	180.1	179.5	180.5
35°	173.0	173.6	174.4	173.8	174.9
37.5°	167.1	167.9	168.4	168.0	168.9
40°	160.7	161.6	162.1	161.7	163.0
42.5°	154.2	154.8	155.5	155.2	156.3
45°	147.5	148.0	148.9	148.4	149.3
47.5°	140.5	140.8	141.4	141.1	142.0
50°	133.0	133.3	133.8	133.6	134.7
52.5°	125.2	125.5	125.9	126.0	126.6
55°	116.3	117.3	117.6	117.4	117.7
57.5°	107.7	108.7	109.6	108.6	108.7
60°	98.6	99.4	100.9	99.1	99.4
62.5°	89.2	90.2	91.9	89.8	90.1
65°	80.0	80.6	81.9	80.3	80.4
67.5°	70.2	71.2	72.0	70.5	70.5
70°	60.7	61.7	61.5	60.8	60.3
72.5°	51.0	52.0	51.7	50.9	50.5
75°	41.3	42.1	41.7	41.3	40.6
77.5°	31.3	32.3	31.7	31.4	31.0
80°	22.3	22.8	22.5	22.3	22.2
82.5°	14.0	14.0	14.1	14.1	13.9
85°	6.5	6.7	7.0	7.1	6.9
87.5°	2.0	2.3	2.5	2.4	2.4
90°	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)