

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: E428-399

Luminaire Tested: **M700-630-1700BA**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-46-04  
Report Number: E428-399  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: M700-630-1700BA  
Description: HALO RECESSED HID - LITE COMMERCIAL, BAFFLE REFL, HIGH SS  
Light Source: LU70D, 5400 LUMENS  
Ballast/Driver: -

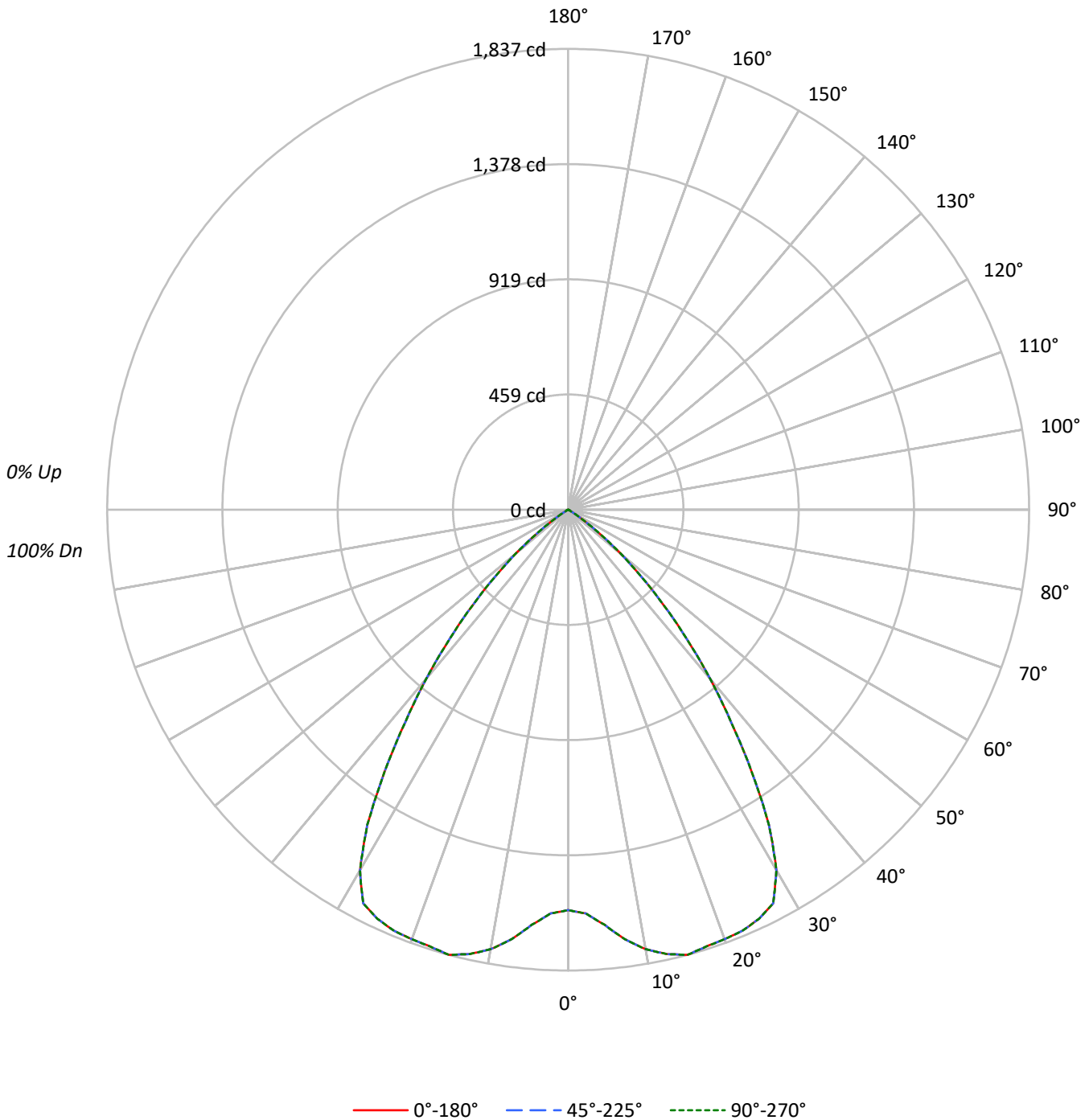
**Summary**

Lumens per Lamp: 5400 (1 lamp)  
Luminaire Lumens: 2813.3 lumens  
Efficiency: 52.1%  
Efficacy: 32.0 lumens/watt  
Spacing Criteria (0/90/45): 1.33 / 1.33 / 1.18  
Luminous Opening: (L: 0 ' x W: -0.58 ' x H: 0 '  
CIE Type: Direct

Input Watts (W): 88  
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	62	62	62	62	61	61	61	61	58	58	58	55	55	55	53	53	53	52
1	59	57	56	54	57	56	55	54	54	53	52	52	51	50	50	50	49	48
2	55	53	50	48	54	52	49	48	50	48	47	48	47	46	47	46	45	44
3	52	48	45	43	51	48	45	43	46	44	42	45	43	41	44	42	41	40
4	49	44	41	39	48	44	41	38	43	40	38	42	39	37	41	39	37	36
5	46	41	37	35	45	40	37	35	39	37	34	39	36	34	38	36	34	33
6	43	38	34	32	42	37	34	32	37	34	31	36	33	31	35	33	31	30
7	41	35	31	29	40	35	31	29	34	31	29	33	31	29	33	30	28	28
8	38	32	29	27	37	32	29	26	32	28	26	31	28	26	30	28	26	25
9	36	30	27	24	35	30	27	24	29	26	24	29	26	24	28	26	24	23
10	34	28	25	23	33	28	25	22	28	24	22	27	24	22	27	24	22	21

**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°	162.6	5.8	3.0
10°-20°	516.2	18.4	9.6
20°-30°	822.6	29.2	15.2
30°-40°	791.0	28.1	14.6
40°-50°	421.5	15.0	7.8
50°-60°	92.1	3.3	1.7
60°-70°	6.5	0.2	0.1
70°-80°	0.8	0.0	0.0
80°-90°	0.0	0.0	0.0
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°	1501.4	53.4	27.8
0°-40°	2292.4	81.5	42.5
0°-60°	2806.0	99.7	52.0
0°-90°	2813.3	100.0	52.1
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°	2813.3	100.0	52.1

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1596	1596	1596	1596	1596	
5°	1661	1661	1661	1661	1661	163
15°	1837	1837	1837	1837	1837	516
25°	1799	1799	1799	1799	1799	823
35°	1275	1275	1275	1275	1275	791
45°	539	539	539	539	539	421
55°	85	85	85	85	85	92
65°	7	7	7	7	7	7
75°	1	1	1	1	1	1
85°	0	0	0	0	0	0
90°	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°	1596	1596	1596	1596	1596	1596	1596	1596	1596
2.5°	1611	1611	1611	1611	1611	1611	1611	1611	1611
5°	1661	1661	1661	1661	1661	1661	1661	1661	1661
7.5°	1727	1727	1727	1727	1727	1727	1727	1727	1727
10°	1779	1779	1779	1779	1779	1779	1779	1779	1779
12.5°	1814	1814	1814	1814	1814	1814	1814	1814	1814
15°	1837	1837	1837	1837	1837	1837	1837	1837	1837
17.5°	1826	1826	1826	1826	1826	1826	1826	1826	1826
20°	1822	1822	1822	1822	1822	1822	1822	1822	1822
22.5°	1816	1816	1816	1816	1816	1816	1816	1816	1816
25°	1799	1799	1799	1799	1799	1799	1799	1799	1799
27.5°	1769	1769	1769	1769	1769	1769	1769	1769	1769
30°	1659	1659	1659	1659	1659	1659	1659	1659	1659
32.5°	1489	1489	1489	1489	1489	1489	1489	1489	1489
35°	1275	1275	1275	1275	1275	1275	1275	1275	1275
37.5°	1066	1066	1066	1066	1066	1066	1066	1066	1066
40°	880	880	880	880	880	880	880	880	880
42.5°	699	699	699	699	699	699	699	699	699
45°	539	539	539	539	539	539	539	539	539
47.5°	396	396	396	396	396	396	396	396	396
50°	272	272	272	272	272	272	272	272	272
52.5°	162	162	162	162	162	162	162	162	162
55°	85	85	85	85	85	85	85	85	85
57.5°	33	33	33	33	33	33	33	33	33
60°	9	9	9	9	9	9	9	9	9
62.5°	9	9	9	9	9	9	9	9	9
65°	7	7	7	7	7	7	7	7	7
67.5°	5	5	5	5	5	5	5	5	5
70°	2	2	2	2	2	2	2	2	2
72.5°	1	1	1	1	1	1	1	1	1
75°	1	1	1	1	1	1	1	1	1
77.5°	0	0	0	0	0	0	0	0	0
80°	0	0	0	0	0	0	0	0	0
85°	0	0	0	0	0	0	0	0	0
90°	0	0	0	0	0	0	0	0	0

(END OF REPORT)