

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: HALO

Report Number: P20238

Luminaire Tested: **ML709827ICAT120D-493BBS06**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P20238  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: ML709827ICAT120D-493BBS06  
Description: HALO 6" RECESSED LED DOWNLIGHT WITH BLACK BAFFLED DESIGN  
LOWER TRIM REFLECTOR, SPECULAR UPPER TRIM REFLECTOR AND  
SOLITE GLASS LENS  
Light Source: HIGH OUTPUT LED  
LED 14 WATTS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

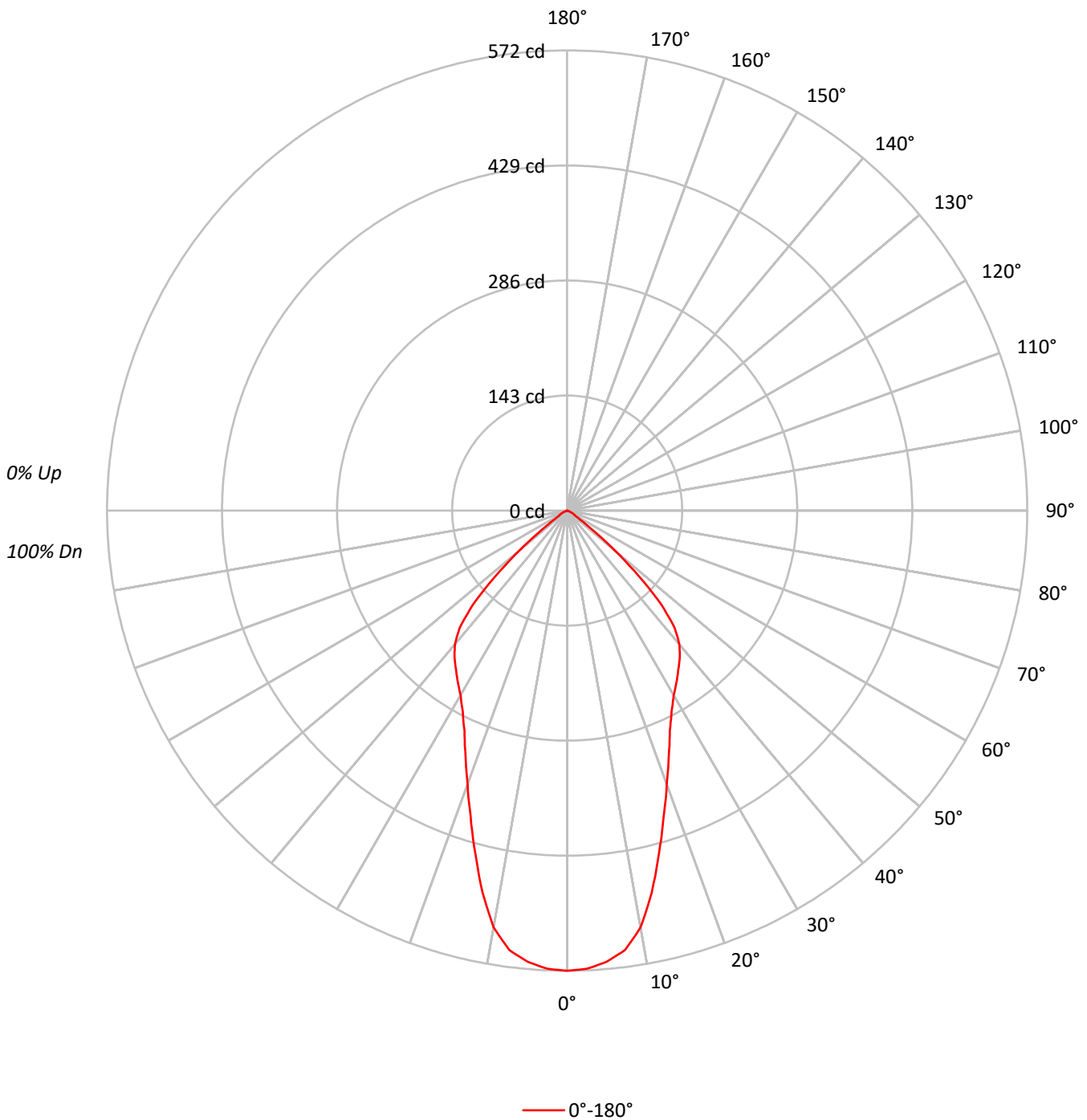
Lumens per Lamp: 620 (1 lamp)  
Luminaire Lumens: 620.7 lumens  
Efficiency: 100.1%  
Efficacy: 43.7 lumens/watt  
Spacing Criteria (0/90/45): 0.76 / 0.76 / 0.94  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

Input Watts (W): 14.2  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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		107	107	107		102	102	102	100
1	113	110	107	104	110	108	105	103	103	101	100		100	98	97		96	95	94	92
2	106	101	96	92	104	99	95	91	96	92	89		93	90	87		90	87	85	84
3	100	92	87	82	98	91	86	81	88	84	80		86	82	79		83	80	78	76
4	94	85	79	74	92	84	78	73	81	76	72		79	75	71		77	74	71	69
5	88	78	72	67	86	77	71	66	75	70	66		74	69	65		72	68	64	63
6	83	72	65	61	81	71	65	60	70	64	60		68	63	59		67	63	59	57
7	78	67	60	55	76	66	60	55	65	59	55		64	58	55		63	58	54	53
8	73	62	56	51	72	62	55	51	61	55	51		59	54	50		58	54	50	49
9	69	58	52	47	68	58	51	47	57	51	47		56	50	47		55	50	46	45
10	65	54	48	44	64	54	48	44	53	47	43		52	47	43		52	47	43	42

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

	0°
0°	31357
5°	30982
10°	29280
15°	25029
20°	21119
25°	18267
30°	16775
35°	16128
40°	15529
45°	12870
50°	6652
55°	1912
60°	1096
65°	778
70°	321
75°	0
80°	0
85°	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	52.7	8.5	8.5
10°-20°	123.0	19.8	19.8
20°-30°	140.6	22.7	22.7
30°-40°	151.0	24.3	24.4
40°-50°	121.1	19.5	19.5
50°-60°	25.9	4.2	4.2
60°-70°	5.9	1.0	1.0
70°-80°	0.5	0.1	0.1
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°	316.3	51.0	51.0
0°-40°	467.2	75.3	75.4
0°-60°	614.3	99.0	99.1
0°-90°	620.7	100.0	100.1
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°	620.7	100.0	100.1

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	572	
5°	563	53
15°	441	123
25°	302	141
35°	241	151
45°	166	121
55°	20	26
65°	6	6
75°	0	1
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	572
2.5°	570
5°	563
7.5°	551
10°	526
12.5°	486
15°	441
17.5°	399
20°	362
22.5°	330
25°	302
27.5°	281
30°	265
32.5°	253
35°	241
37.5°	230
40°	217
42.5°	198
45°	166
47.5°	122
50°	78
52.5°	42
55°	20
57.5°	12
60°	10
62.5°	8
65°	6
67.5°	4
70°	2
72.5°	1
75°	0
77.5°	0
80°	0
82.5°	0
85°	0
87.5°	0
90°	0

(END OF REPORT)