

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: P20235

Luminaire Tested: **ML709830ICAT120D-494H06**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P20235  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: ML709830ICAT120D-494H06  
Description: HALO 6" RECESSED LED DOWNLIGHT WITH HAZE FINISH TRIM  
REFLECTOR  
Light Source: HIGH OUTPUT LED  
LED 14 WATTS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

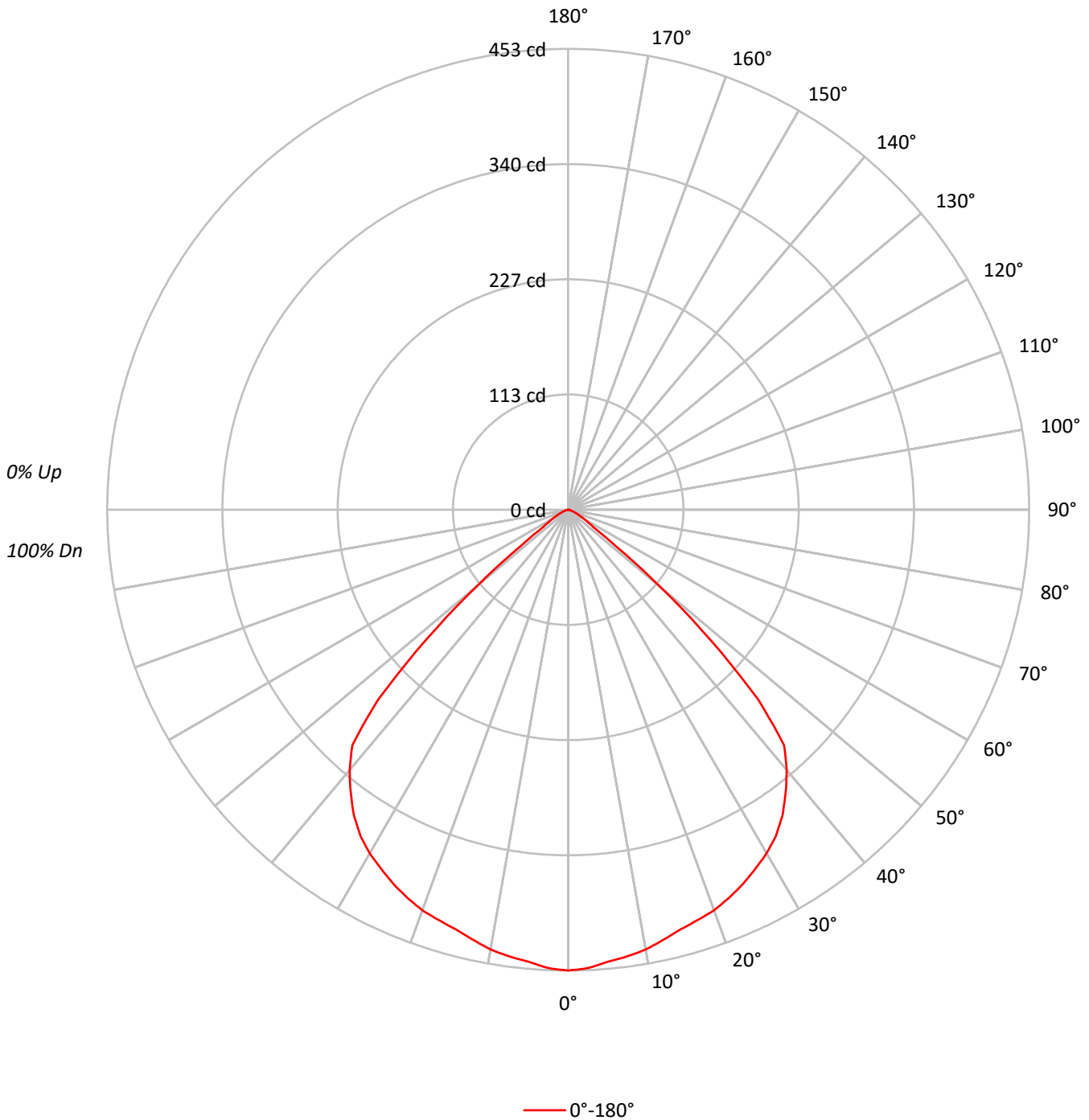
Lumens per Lamp: 820 (1 lamp)  
Luminaire Lumens: 821.6 lumens  
Efficiency: 100.2%  
Efficacy: 58.7 lumens/watt  
Spacing Criteria (0/90/45): 1.28 / 1.28 / 1.34  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

Input Watts (W): 14  
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	119	119	119	119	117	117	117	117	111	111	111		107	107	107		102	102	102	100
1	112	109	106	104	110	107	104	102	103	101	99		99	97	96		96	94	93	91
2	105	99	94	90	103	98	93	89	94	91	87		91	88	85		88	86	84	82
3	98	90	84	79	96	89	83	79	86	81	78		84	80	76		81	78	75	73
4	92	82	76	70	90	81	75	70	79	73	69		77	72	68		75	71	67	66
5	86	75	68	63	84	74	68	63	72	66	62		71	65	61		69	64	61	59
6	80	69	62	56	78	68	61	56	66	60	56		65	59	55		64	59	55	53
7	75	63	56	51	73	63	56	51	61	55	50		60	54	50		59	54	50	48
8	70	58	51	46	69	58	51	46	57	50	46		55	50	46		54	49	45	44
9	66	54	47	42	64	53	47	42	52	46	42		51	46	42		50	45	41	40
10	62	50	43	38	61	50	43	38	49	43	38		48	42	38		47	42	38	36

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

	0°
0°	24834
5°	24543
10°	24437
15°	24234
20°	24444
25°	24558
30°	24687
35°	24561
40°	23902
45°	20467
50°	10064
55°	2963
60°	1974
65°	1297
70°	641
75°	424
80°	316
85°	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	42.4	5.2	5.2
10°-20°	121.0	14.7	14.8
20°-30°	187.2	22.8	22.8
30°-40°	228.6	27.8	27.9
40°-50°	190.0	23.1	23.2
50°-60°	39.8	4.8	4.9
60°-70°	10.1	1.2	1.2
70°-80°	2.2	0.3	0.3
80°-90°	0.1	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°	350.7	42.7	42.8
0°-40°	579.3	70.5	70.6
0°-60°	809.1	98.5	98.7
0°-90°	821.6	100.0	100.2
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°	821.6	100.0	100.2

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	453	
5°	446	42
15°	427	121
25°	406	187
35°	367	229
45°	264	190
55°	31	40
65°	10	10
75°	2	2
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	453
2.5°	451
5°	446
7.5°	443
10°	439
12.5°	433
15°	427
17.5°	423
20°	419
22.5°	413
25°	406
27.5°	398
30°	390
32.5°	380
35°	367
37.5°	351
40°	334
42.5°	314
45°	264
47.5°	190
50°	118
52.5°	59
55°	31
57.5°	23
60°	18
62.5°	13
65°	10
67.5°	7
70°	4
72.5°	3
75°	2
77.5°	1
80°	1
82.5°	0
85°	0
87.5°	0
90°	0

(END OF REPORT)