

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: P20233

Luminaire Tested: **ML709830ICAT120D-494P06**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P20233
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: ML709830ICAT120D-494P06
Description: HALO 6" RECESSED LED DOWNLIGHT WITH WHITE PAINTED TRIM
REFLECTOR
Light Source: HIGH OUTPUT LED
LED 14 WATTS
Ballast/Driver: ELECTRONIC DRIVER

Summary

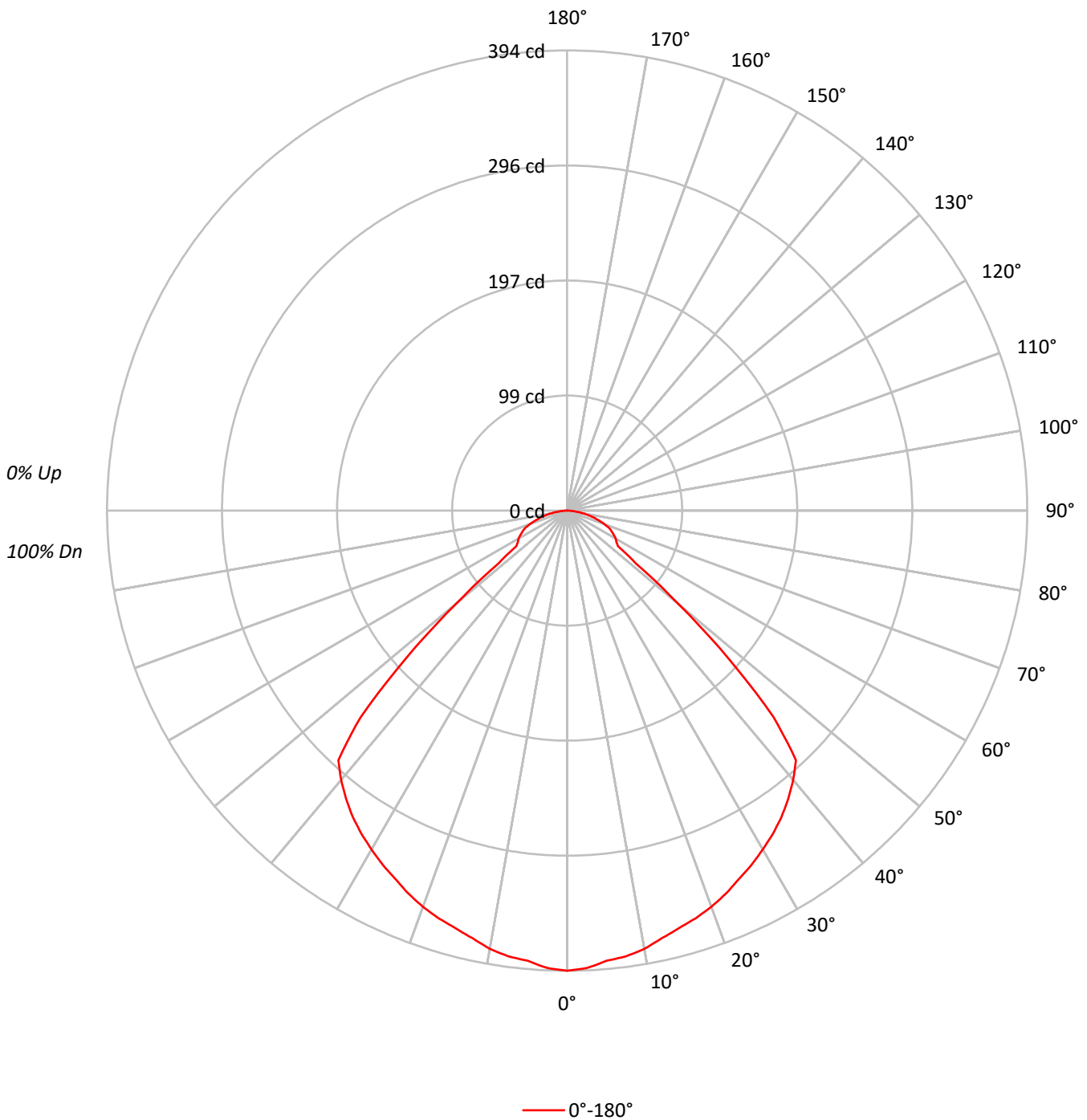
Lumens per Lamp: 813 (1 lamp)
Luminaire Lumens: 813.8 lumens
Efficiency: 100.1%
Efficacy: 58.1 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.37
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 14
Input Voltage (V): NR
Input Current (A_{in}): 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		106	106	106		102	102	102	100
1	111	107	104	101	108	105	102	99	101	98	96		97	95	93		93	92	90	88
2	103	96	91	86	100	94	89	85	91	87	83		88	84	81		85	82	79	77
3	95	87	80	74	93	85	79	74	82	77	72		80	75	71		77	73	70	68
4	88	78	71	65	86	77	70	64	75	68	64		72	67	63		70	66	62	60
5	82	71	63	57	80	70	63	57	68	61	56		66	60	56		64	59	55	53
6	76	65	57	51	75	64	56	51	62	55	50		60	55	50		59	54	50	48
7	71	59	51	46	70	58	51	46	57	50	45		56	50	45		54	49	45	43
8	67	54	47	41	65	54	46	41	52	46	41		51	45	41		50	45	41	39
9	62	50	43	38	61	50	42	37	49	42	37		47	41	37		47	41	37	35
10	59	46	39	34	57	46	39	34	45	39	34		44	38	34		43	38	34	32

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	21599
5°	21296
10°	21209
15°	20999
20°	21060
25°	21050
30°	21206
35°	21415
40°	21540
45°	19382
50°	10575
55°	5066
60°	5263
65°	5448
70°	5450
75°	5083
80°	4420
85°	3145



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	36.8	4.5	4.5
10°-20°	104.7	12.9	12.9
20°-30°	160.8	19.8	19.8
30°-40°	200.1	24.6	24.6
40°-50°	179.9	22.1	22.1
50°-60°	58.4	7.2	7.2
60°-70°	41.4	5.1	5.1
70°-80°	25.3	3.1	3.1
80°-90°	6.3	0.8	0.8
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°	302.4	37.2	37.2
0°-40°	502.5	61.8	61.8
0°-60°	740.9	91.0	91.1
0°-90°	813.8	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°	813.8	100.0	100.1

CANDELA DISTRIBUTION:

	0°	Flux
0°	394	
5°	387	37
15°	370	105
25°	348	161
35°	320	200
45°	250	180
55°	53	58
65°	42	41
75°	24	25
85°	5	6
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	394
2.5°	392
5°	387
7.5°	385
10°	381
12.5°	375
15°	370
17.5°	366
20°	361
22.5°	355
25°	348
27.5°	342
30°	335
32.5°	328
35°	320
37.5°	311
40°	301
42.5°	290
45°	250
47.5°	187
50°	124
52.5°	74
55°	53
57.5°	50
60°	48
62.5°	45
65°	42
67.5°	39
70°	34
72.5°	29
75°	24
77.5°	19
80°	14
82.5°	9
85°	5
87.5°	2
90°	0

(END OF REPORT)