

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: P20229

Luminaire Tested: **ML709830ICAT120D-493SCS06**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P20229  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: ML709830ICAT120D-493SCS06  
Description: HALO 6" RECESSED LED DOWNLIGHT WITH SPECULAR CLEAR LOWER TRIM REFLECTOR, SPECULAR UPPER TRIM REFLECTOR AND SOLITE GLASS LENS WITH MODULE  
Light Source: HIGH OUTPUT LED  
LED 14 WATTS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: 761 (1 lamp)  
Luminaire Lumens: 762.0 lumens  
Efficiency: 100.1%  
Efficacy: 54.4 lumens/watt  
Spacing Criteria (0/90/45): 0.95 / 0.95 / 1.04  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

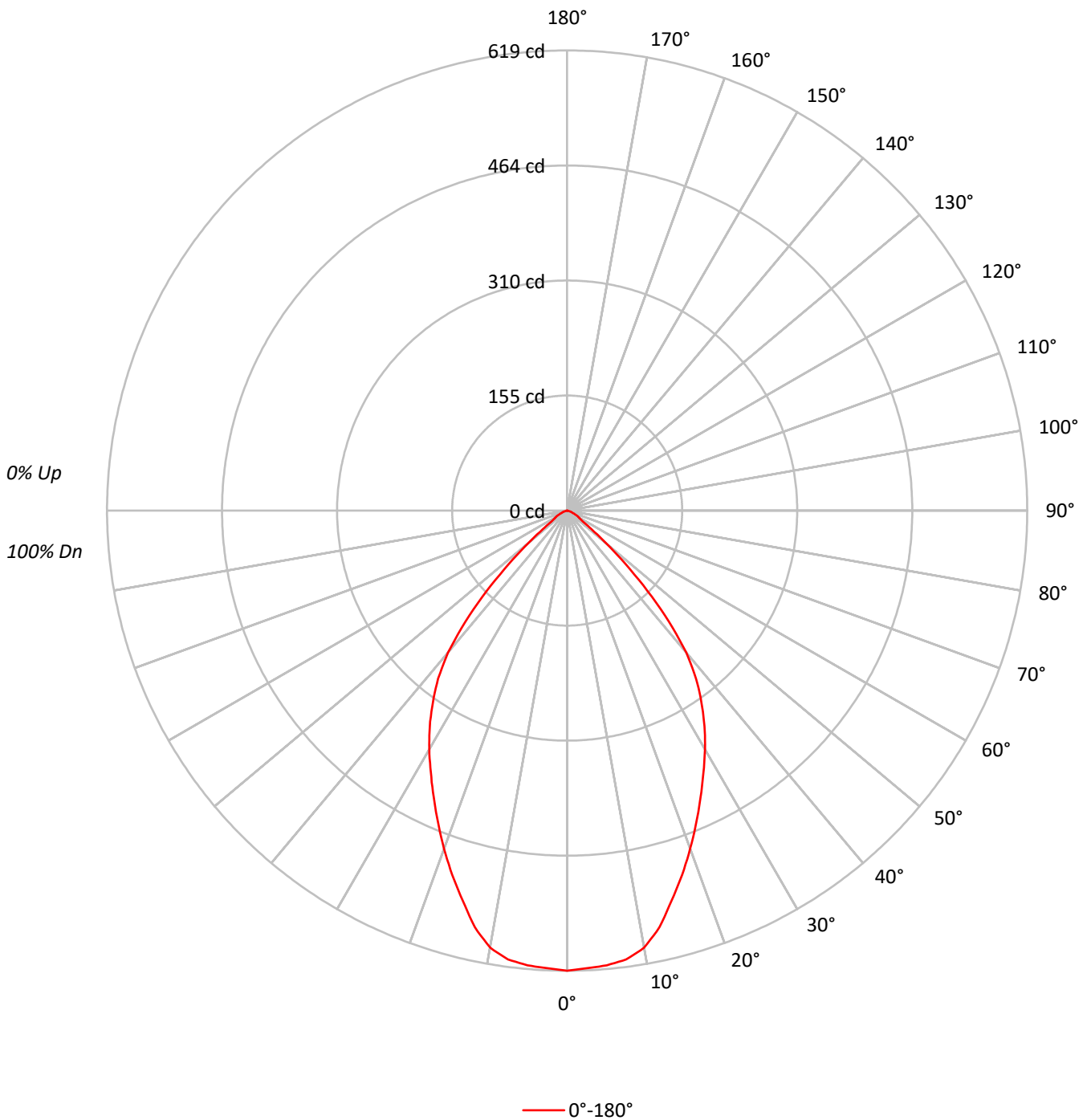
Input Watts (W): 14  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	82	88	84	80		86	82	79		83	80	78	76
4	94	85	79	74	92	84	78	73	82	77	73		80	75	72		78	74	71	69
5	88	79	72	67	86	78	71	67	76	70	66		74	69	65		72	68	65	63
6	83	73	66	61	81	72	65	61	70	65	60		69	64	60		67	63	59	58
7	78	67	61	56	77	67	60	56	65	60	55		64	59	55		63	58	55	53
8	74	63	56	51	72	62	56	51	61	55	51		60	55	51		59	54	51	49
9	69	59	52	47	68	58	52	47	57	51	47		56	51	47		55	50	47	45
10	66	55	48	44	65	54	48	44	54	48	44		53	47	44		52	47	44	42

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

	0°
0°	33934
5°	33788
10°	33233
15°	30817
20°	28236
25°	25707
30°	23485
35°	21081
40°	17819
45°	11862
50°	5799
55°	2485
60°	1974
65°	1427
70°	962
75°	212
80°	0
85°	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	58.1	7.6	7.6
10°-20°	152.2	20.0	20.0
20°-30°	195.6	25.7	25.7
30°-40°	195.5	25.7	25.7
40°-50°	118.2	15.5	15.5
50°-60°	28.8	3.8	3.8
60°-70°	11.3	1.5	1.5
70°-80°	2.4	0.3	0.3
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°	405.9	53.3	53.3
0°-40°	601.4	78.9	79.0
0°-60°	748.3	98.2	98.3
0°-90°	762.0	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°	762.0	100.0	100.1

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	619	
5°	614	58
15°	543	152
25°	425	196
35°	315	195
45°	153	118
55°	26	29
65°	11	11
75°	1	2
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	619
2.5°	616
5°	614
7.5°	609
10°	597
12.5°	574
15°	543
17.5°	514
20°	484
22.5°	454
25°	425
27.5°	397
30°	371
32.5°	344
35°	315
37.5°	285
40°	249
42.5°	203
45°	153
47.5°	106
50°	68
52.5°	41
55°	26
57.5°	20
60°	18
62.5°	15
65°	11
67.5°	8
70°	6
72.5°	4
75°	1
77.5°	1
80°	0
82.5°	0
85°	0
87.5°	0
90°	0

(END OF REPORT)