

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: P20252

Luminaire Tested: **ML709835ICAT120D-493SNS06**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P20252  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: ML709835ICAT120D-493SNS06  
Description: HALO 6" RECESSED LED DOWNLIGHT WITH SATIN NICKEL FINISH 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**

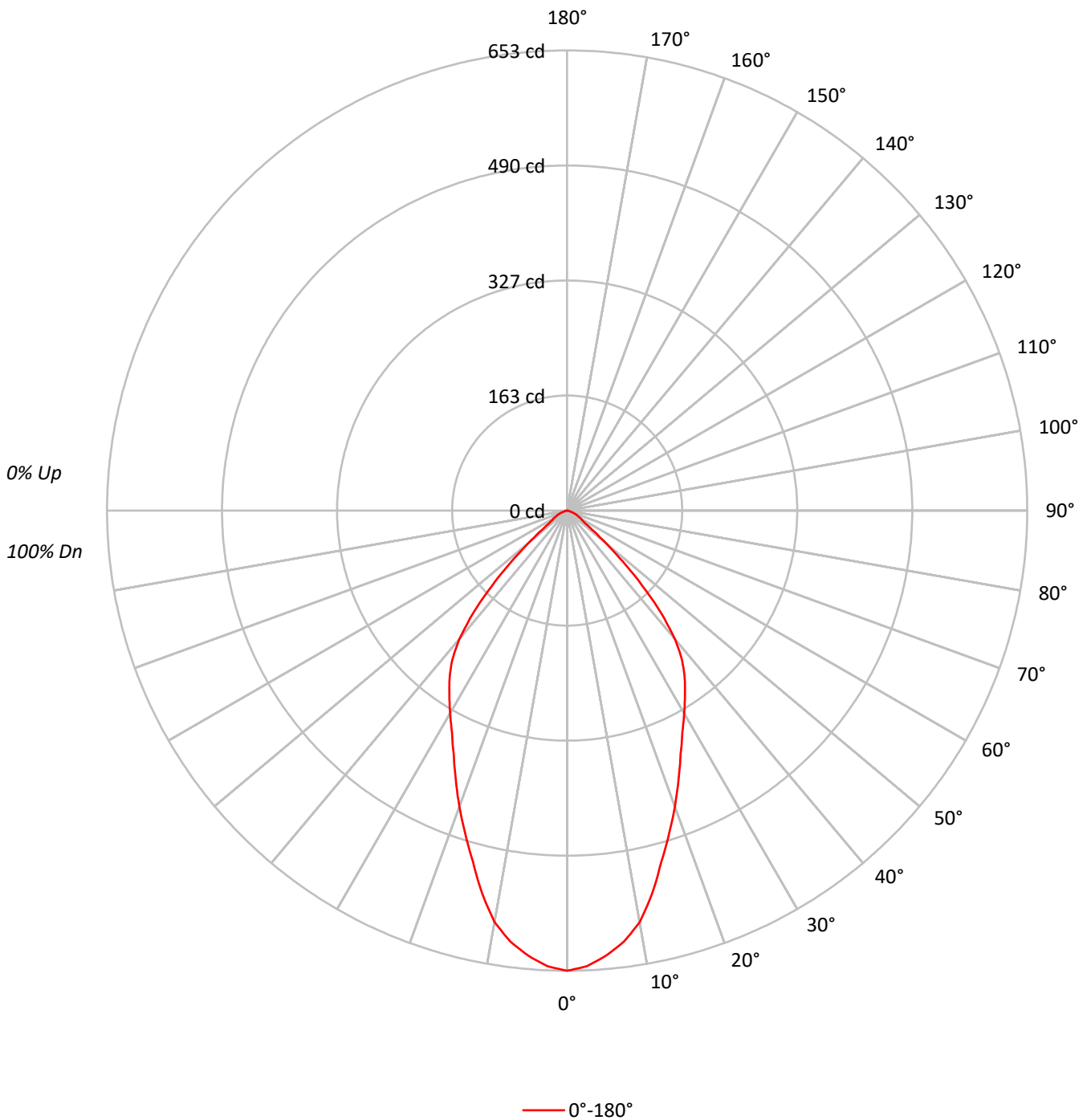
Lumens per Lamp: 729 (1 lamp)  
Luminaire Lumens: 729.9 lumens  
Efficiency: 100.1%  
Efficacy: 51.8 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 0.83 / 0.98  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

Input Watts (W): 14.1  
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	109	107	104	110	107	105	102	103	101	99	99	98	96	96	95	93	92
2	106	100	96	92	104	98	94	91	95	92	89	92	89	87	89	87	85	83
3	99	92	86	81	97	90	85	81	88	83	79	85	81	78	83	80	77	75
4	93	85	78	73	91	83	77	73	81	76	72	79	75	71	77	73	70	68
5	88	78	71	66	86	77	71	66	75	69	65	73	68	65	72	67	64	62
6	82	72	65	60	81	71	65	60	70	64	60	68	63	59	67	62	59	57
7	78	67	60	55	76	66	60	55	65	59	55	64	58	54	62	58	54	52
8	73	62	55	51	72	62	55	51	60	55	50	59	54	50	58	54	50	48
9	69	58	51	47	68	58	51	47	57	51	47	56	50	46	55	50	46	45
10	65	54	48	44	64	54	48	43	53	47	43	52	47	43	51	47	43	42

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

	0°
0°	35798
5°	34889
10°	33010
15°	29285
20°	26077
25°	23046
30°	21016
35°	19475
40°	17032
45°	11707
50°	5970
55°	2963
60°	2412
65°	1946
70°	1443
75°	847
80°	631
85°	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	59.3	8.1	8.1
10°-20°	144.8	19.8	19.9
20°-30°	176.3	24.2	24.2
30°-40°	180.3	24.7	24.7
40°-50°	116.3	15.9	15.9
50°-60°	32.6	4.5	4.5
60°-70°	14.9	2.0	2.0
70°-80°	4.9	0.7	0.7
80°-90°	0.5	0.1	0.1
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°	380.4	52.1	52.2
0°-40°	560.7	76.8	76.9
0°-60°	709.6	97.2	97.3
0°-90°	729.9	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°	729.9	100.0	100.1

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	653	
5°	634	59
15°	516	145
25°	381	176
35°	291	180
45°	151	116
55°	31	33
65°	15	15
75°	4	5
85°	0	1
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	653
2.5°	647
5°	634
7.5°	617
10°	593
12.5°	557
15°	516
17.5°	481
20°	447
22.5°	413
25°	381
27.5°	354
30°	332
32.5°	311
35°	291
37.5°	268
40°	238
42.5°	198
45°	151
47.5°	107
50°	70
52.5°	45
55°	31
57.5°	25
60°	22
62.5°	18
65°	15
67.5°	12
70°	9
72.5°	6
75°	4
77.5°	3
80°	2
82.5°	1
85°	0
87.5°	0
90°	0

(END OF REPORT)