

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: P20124

Luminaire Tested: **ML712830TUNVD010-493BBS06**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P20124  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: ML712830TUNVD010-493BBS06  
Description: HALO 6" RECESSED LED DOWNLIGHT WITH BLACK BAFFLED DESIGN  
LOWER TRIM REFLECTOR, SPECULAR UPPER TRIM REFLECTOR, AND  
SOLITE GLASS LENS WITH MODULE ML712830TUNVD010  
Light Source: (1)SURFACE MOUNT LED ON HEAT SINK MODULE  
(1)24 WATTS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

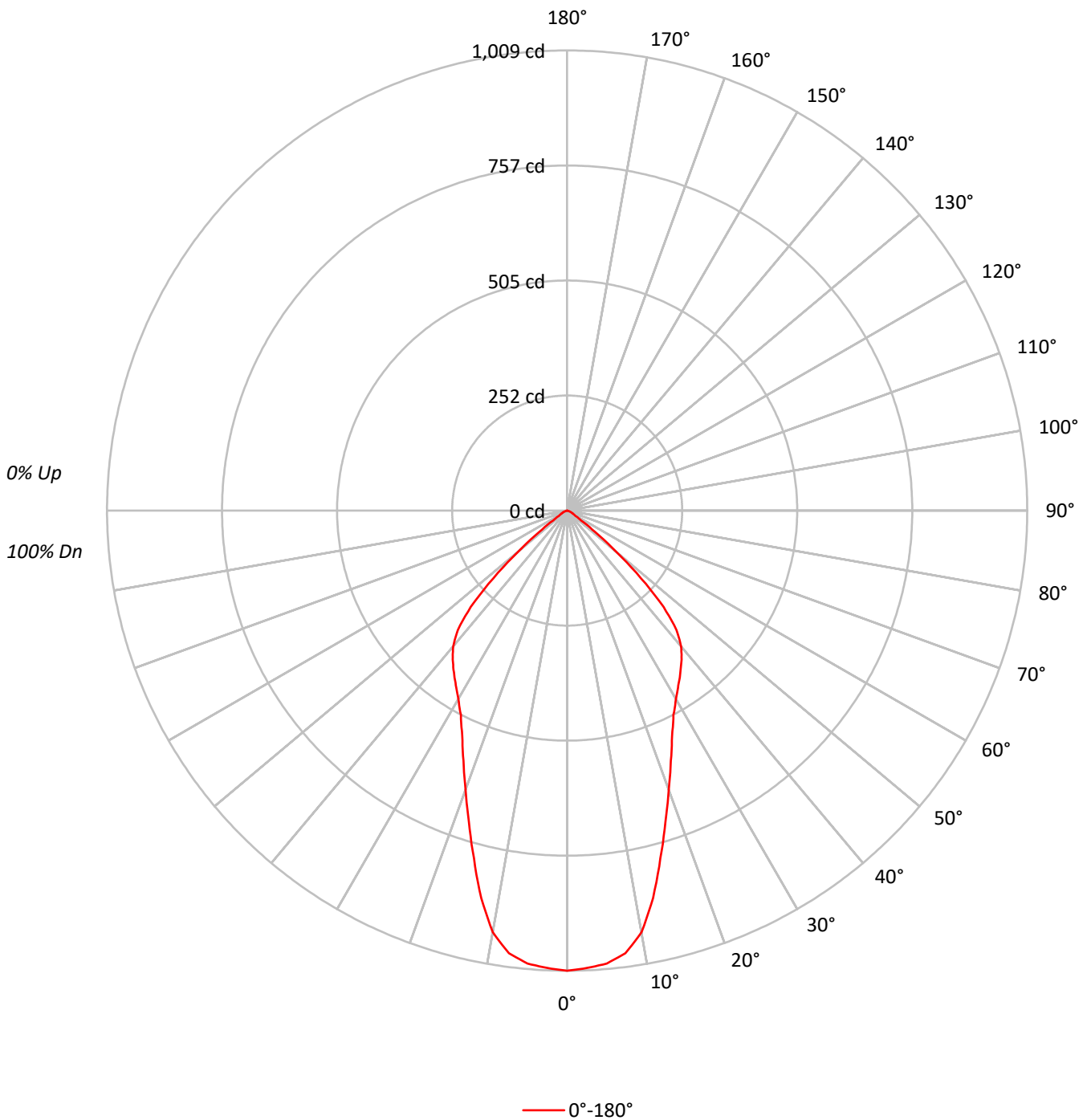
Lumens per Lamp: 1115 (1 lamp)  
Luminaire Lumens: 1115.1 lumens  
Efficiency: 100.0%  
Efficacy: 40.8 lumens/watt  
Spacing Criteria (0/90/45): 0.78 / 0.78 / 0.95  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

Input Watts (W): 27.3  
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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	113	110	107	104	110	107	105	103	103	101	99	100	98	96	96	95	94	92				92
2	106	100	96	92	104	99	94	91	95	92	89	92	90	87	90	87	85	83				83
3	100	92	86	82	97	91	85	81	88	84	80	86	82	79	83	80	77	76				76
4	93	85	78	73	92	84	78	73	81	76	72	79	75	71	77	74	70	69				69
5	88	78	71	66	86	77	71	66	75	70	65	73	69	65	72	68	64	63				63
6	82	72	65	60	81	71	65	60	70	64	60	68	63	59	67	62	59	57				57
7	78	67	60	55	76	66	60	55	65	59	55	64	58	54	62	58	54	52				52
8	73	62	55	51	72	62	55	51	60	55	50	59	54	50	58	53	50	48				48
9	69	58	51	47	68	58	51	47	57	51	47	56	50	46	55	50	46	45				45
10	65	54	48	43	64	54	48	43	53	47	43	52	47	43	51	46	43	41				41

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

	0°
0°	55314
5°	54864
10°	52270
15°	44836
20°	37978
25°	32905
30°	30195
35°	28978
40°	27838
45°	23181
50°	12025
55°	3536
60°	1864
65°	1427
70°	801
75°	212
80°	0
85°	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	93.4	8.4	8.4
10°-20°	220.4	19.8	19.8
20°-30°	253.0	22.7	22.7
30°-40°	271.0	24.3	24.3
40°-50°	217.8	19.5	19.5
50°-60°	47.2	4.2	4.2
60°-70°	10.8	1.0	1.0
70°-80°	1.4	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°	566.9	50.8	50.8
0°-40°	837.8	75.1	75.1
0°-60°	1102.9	98.9	98.9
0°-90°	1115.1	100.0	100.0
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°	1115.1	100.0	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1009	
5°	997	93
15°	790	220
25°	544	253
35°	433	271
45°	299	218
55°	37	47
65°	11	11
75°	1	1
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	1009
2.5°	1004
5°	997
7.5°	979
10°	939
12.5°	870
15°	790
17.5°	716
20°	651
22.5°	594
25°	544
27.5°	505
30°	477
32.5°	454
35°	433
37.5°	412
40°	389
42.5°	355
45°	299
47.5°	220
50°	141
52.5°	77
55°	37
57.5°	22
60°	17
62.5°	14
65°	11
67.5°	8
70°	5
72.5°	2
75°	1
77.5°	0
80°	0
82.5°	0
85°	0
87.5°	0
90°	0

(END OF REPORT)