

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: P20146

Luminaire Tested: **ML712835TUNVD010-493BBS06**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P20146  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: ML712835TUNVD010-493BBS06  
Description: HALO 6" RECESSED LED DOWNLIGHT WITH BLACK BAFFLED DESIGN  
LOWER TRIM REFLECTOR, SPECULAR UPPER TRIM REFLECTOR AND  
SOLITE GLASS LENS WITH MODULE ML712835TUNVD010  
Light Source: (1)SURFACE MOUNT LED ON HEAT SINK MODULE  
(1)24 WATTS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: 1161 (1 lamp)  
Luminaire Lumens: 1161.5 lumens  
Efficiency: 100.0%  
Efficacy: 43.8 lumens/watt  
Spacing Criteria (0/90/45): 0.78 / 0.78 / 0.96  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

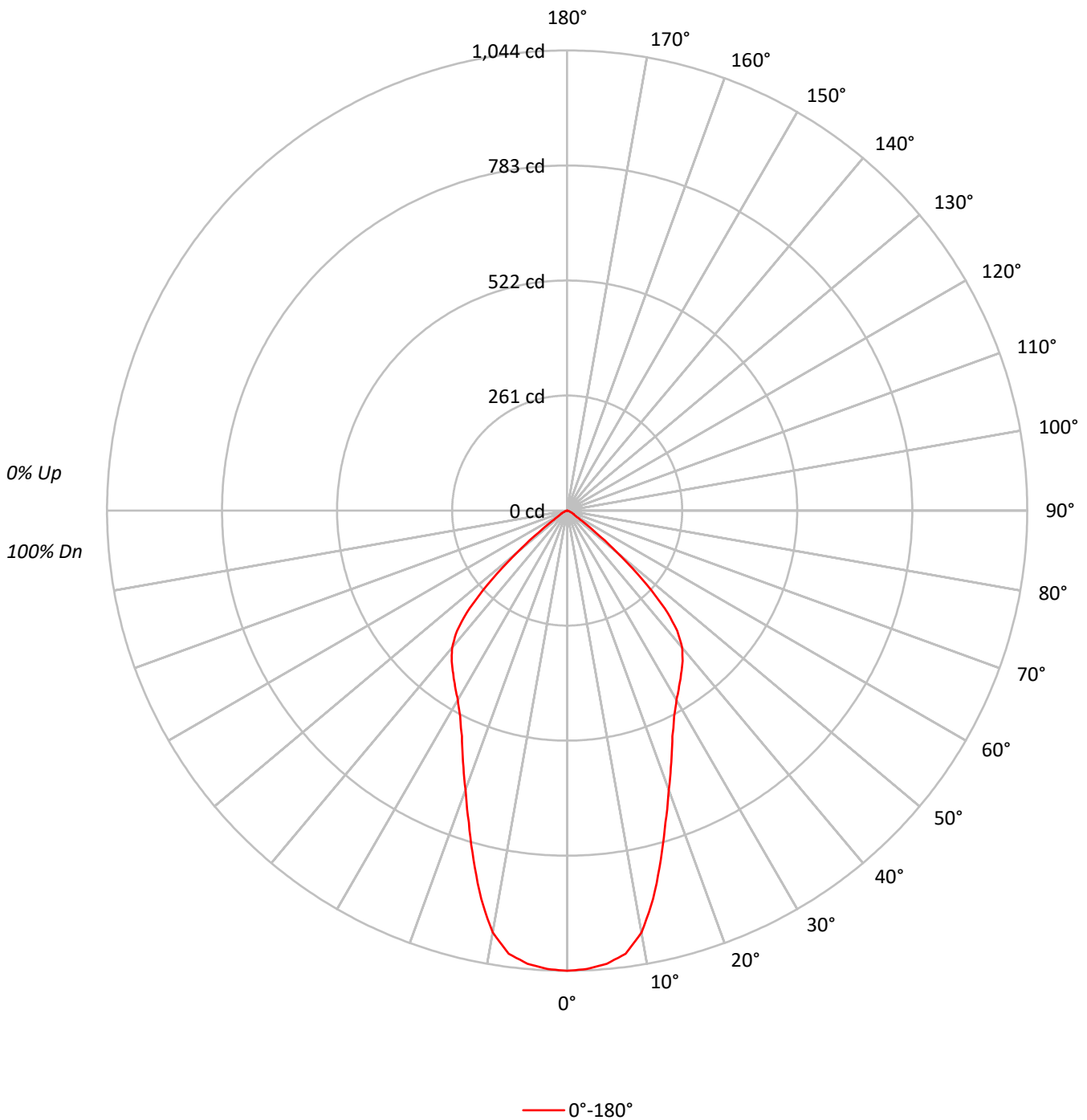
Input Watts (W): 26.5  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

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

	0°
0°	57232
5°	56791
10°	54107
15°	46538
20°	39320
25°	34175
30°	31397
35°	30182
40°	29054
45°	24266
50°	12707
55°	3823
60°	1974
65°	1557
70°	801
75°	212
80°	0
85°	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	96.8	8.3	8.3
10°-20°	228.5	19.7	19.7
20°-30°	262.9	22.6	22.6
30°-40°	282.4	24.3	24.3
40°-50°	227.9	19.6	19.6
50°-60°	50.2	4.3	4.3
60°-70°	11.5	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°	588.2	50.6	50.7
0°-40°	870.6	75.0	75.0
0°-60°	1148.6	98.9	98.9
0°-90°	1161.5	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°	1161.5	100.0	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1044	
5°	1032	97
15°	820	229
25°	565	263
35°	451	282
45°	313	228
55°	40	50
65°	12	11
75°	1	1
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	1044
2.5°	1041
5°	1032
7.5°	1014
10°	972
12.5°	902
15°	820
17.5°	742
20°	674
22.5°	617
25°	565
27.5°	526
30°	496
32.5°	473
35°	451
37.5°	430
40°	406
42.5°	370
45°	313
47.5°	231
50°	149
52.5°	82
55°	40
57.5°	23
60°	18
62.5°	15
65°	12
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)