

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: P20172

Luminaire Tested: **ML712840TUNVD010-493SNS06**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P20172  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: ML712840TUNVD010-493SNS06  
Description: HALO 6" RECESSED LED DOWNLIGHT WITH SATIN NICKEL FINISH  
LOWER TRIM REFLECTOR, SPECULAR UPPER TRIM REFLECTOR AND  
SOLITE GLASS LENS WITH MODULE ML712840TUNVD010  
Light Source: (1)SURFACE MOUNT LED ON HEAT SINK MODULE  
24 WATTS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

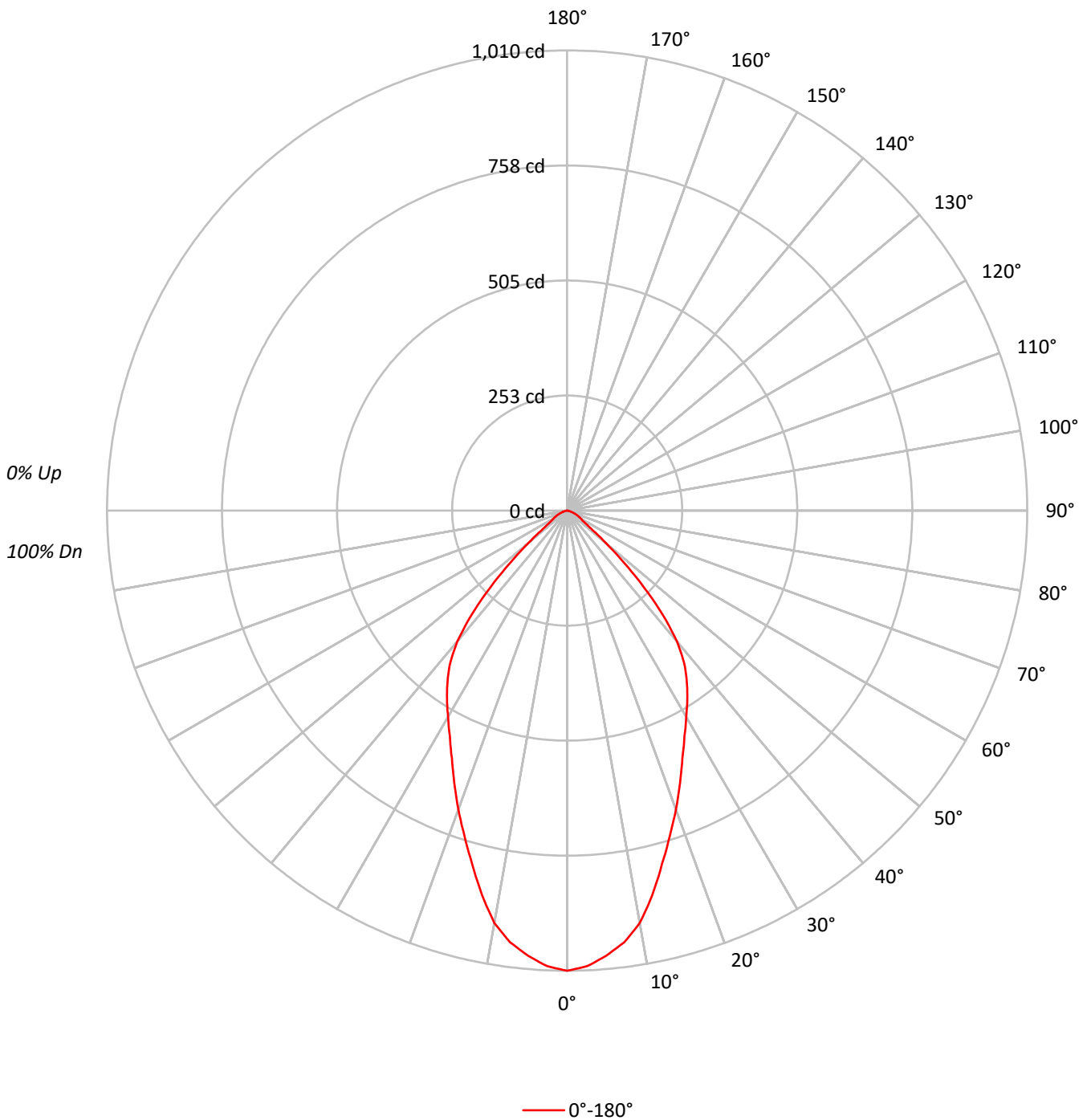
Lumens per Lamp: 1144 (1 lamp)  
Luminaire Lumens: 1145.3 lumens  
Efficiency: 100.1%  
Efficacy: 43.9 lumens/watt  
Spacing Criteria (0/90/45): 0.84 / 0.84 / 0.99  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

Input Watts (W): 26.1  
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



TEST NUMBER: P20172  
CATALOG NUMBER: ML712840TUNVD010-493SNS06

### Luminous Intensity Polar Plot





TEST NUMBER: P20172

CATALOG NUMBER: ML712840TUNVD010-493SNS06

**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	95	91	104	98	94	90	95	92	88		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	84	78	73	91	83	77	73	81	76	72		79	74	71		77	73	70	68
5	88	78	71	66	86	77	70	66	75	69	65		73	68	64		72	67	64	62
6	82	72	65	60	81	71	65	60	70	64	59		68	63	59		67	62	59	57
7	77	67	60	55	76	66	59	55	65	59	55		63	58	54		62	57	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	48	43	53	47	43		52	47	43		51	46	43	41

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

	0°
0°	55368
5°	53984
10°	51157
15°	45630
20°	40720
25°	36232
30°	33106
35°	30651
40°	26836
45°	18529
50°	9381
55°	4683
60°	3728
65°	3113
70°	2244
75°	1483
80°	947
85°	629



TEST NUMBER: P20172

CATALOG NUMBER: ML712840TUNVD010-493SNS06

**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	91.8	8.0	8.0
10°-20°	225.3	19.7	19.7
20°-30°	277.0	24.2	24.2
30°-40°	284.1	24.8	24.8
40°-50°	183.3	16.0	16.0
50°-60°	51.2	4.5	4.5
60°-70°	23.7	2.1	2.1
70°-80°	7.8	0.7	0.7
80°-90°	1.2	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°	594.1	51.9	51.9
0°-40°	878.2	76.7	76.8
0°-60°	1112.7	97.1	97.3
0°-90°	1145.3	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°	1145.3	100.0	100.1

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1010	
5°	981	92
15°	804	225
25°	599	277
35°	458	284
45°	239	183
55°	49	51
65°	24	24
75°	7	8
85°	1	1
90°	0	



TEST NUMBER: P20172

CATALOG NUMBER: ML712840TUNVD010-493SNS06

**CANDELA DISTRIBUTION (FULL):**

	0°
0°	1010
2.5°	1001
5°	981
7.5°	956
10°	919
12.5°	864
15°	804
17.5°	749
20°	698
22.5°	647
25°	599
27.5°	558
30°	523
32.5°	491
35°	458
37.5°	422
40°	375
42.5°	312
45°	239
47.5°	168
50°	110
52.5°	71
55°	49
57.5°	39
60°	34
62.5°	29
65°	24
67.5°	19
70°	14
72.5°	10
75°	7
77.5°	4
80°	3
82.5°	2
85°	1
87.5°	0
90°	0

(END OF REPORT)