

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: P303587

Luminaire Tested: **HLA406FL9FS1EMWR-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P303587  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA ( A1906595A001)  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: HLA406FL9FS1EMWR-3500K  
Description: 4IN HLA LED DOWNLIGHT WITH 40 DEGREE OPTIC AND 3500K LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

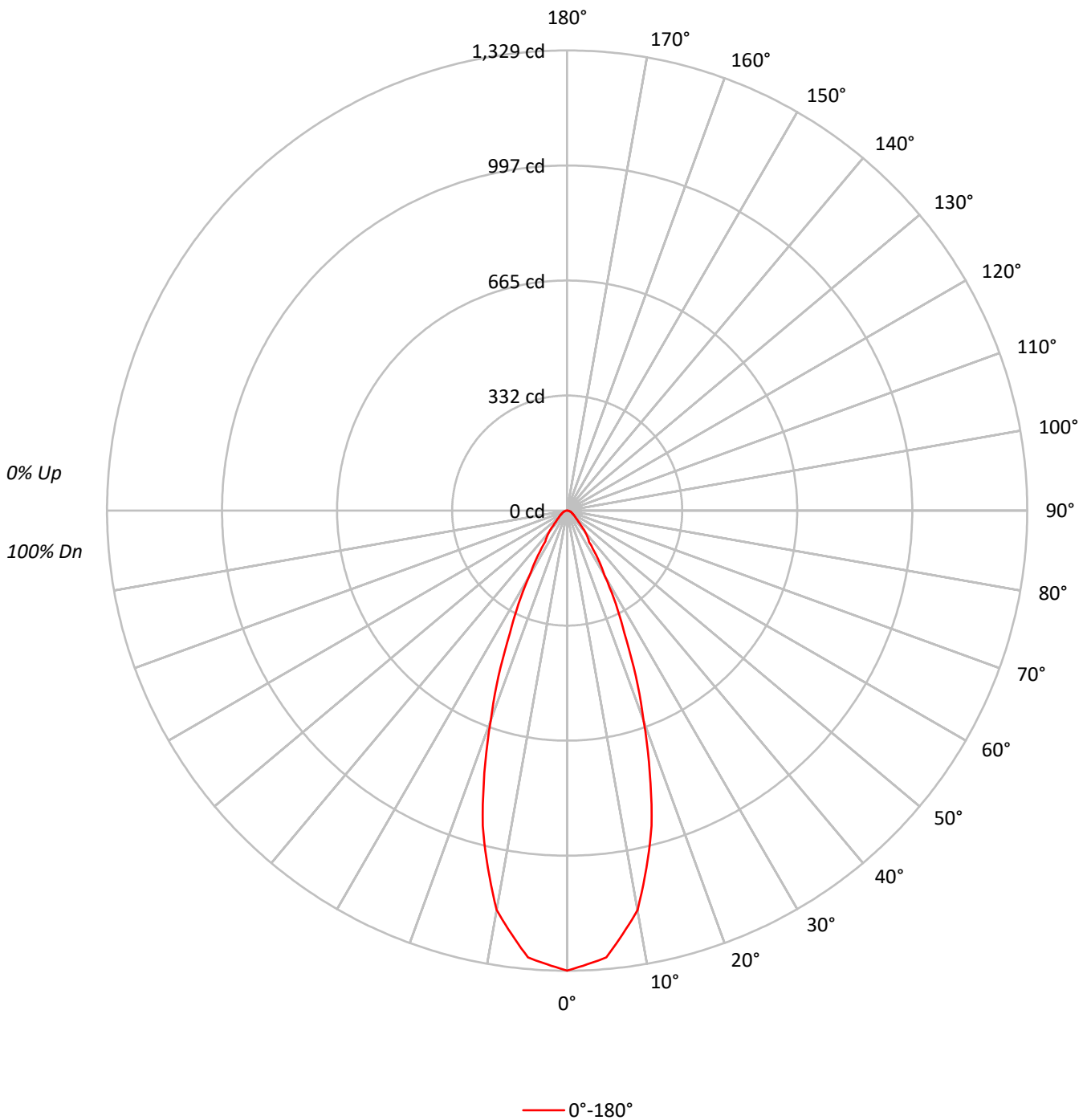
Lumens per Lamp: N/A  
Luminaire Lumens: 730.1 lumens  
Efficiency: N/A  
Efficacy: 71.6 lumens/watt  
Spacing Criteria (0/90/45): 0.65 / 0.65 / 0.63  
Luminous Opening: Circular (Dia: 0.25' x H: 0')  
CIE Type: Direct

Input Watts (W): 10.2  
Input Voltage (V): NR  
Input Current (Ain): 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	108	106	111	108	106	104	104	102	101		101	99	98		97	96	95	93
2	108	103	99	95	106	101	97	94	98	95	92		95	92	90		92	90	88	87
3	103	96	91	87	101	95	90	87	92	88	85		90	87	84		88	85	83	81
4	98	90	85	81	96	89	84	80	87	83	80		85	82	79		83	80	78	76
5	93	85	80	76	92	84	79	75	83	78	75		81	77	74		79	76	73	72
6	89	81	75	71	88	80	75	71	78	74	70		77	73	70		76	72	69	68
7	85	77	71	67	84	76	71	67	75	70	66		73	69	66		72	69	66	64
8	82	73	67	63	81	72	67	63	71	66	63		70	66	63		69	65	62	61
9	78	69	64	60	77	69	64	60	68	63	60		67	63	60		66	62	59	58
10	75	66	61	57	74	66	61	57	65	60	57		64	60	57		64	60	57	56

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

	0°
0°	291336
5°	285163
10°	260783
15°	214008
20°	150816
25°	94360
30°	55249
35°	29794
40°	23415
45°	14420
50°	11053
55°	9137
60°	8026
65°	7420
70°	7052
75°	6863
80°	7072
85°	7296



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	119.6	16.4
10°-20°	256.4	35.1
20°-30°	185.7	25.4
30°-40°	80.7	11.1
40°-50°	39.7	5.4
50°-60°	22.0	3.0
60°-70°	14.3	2.0
70°-80°	8.7	1.2
80°-90°	3.1	0.4
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	561.6	76.9
0°-40°	642.4	88.0
0°-60°	704.1	96.4
0°-90°	730.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	730.1	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1329	
5°	1296	120
15°	943	256
25°	390	186
35°	111	81
45°	46	40
55°	24	22
65°	14	14
75°	8	9
85°	3	3
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	1328.6
5°	1295.5
10°	1171.2
15°	942.7
20°	646.3
25°	390.0
30°	218.2
35°	111.3
40°	81.8
45°	46.5
50°	32.4
55°	23.9
60°	18.3
65°	14.3
70°	11.0
75°	8.1
80°	5.6
85°	2.9
90°	0.0

(END OF REPORT)