

LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: HALO

Report Number: P601198

Luminaire Tested: **ML406FLD2W1E - TIR4D40FL - TL41R_ TL42S_ 3000K**

Issue Date: 7/29/2022

Tested By:

Approved By:



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Test Information

Test Method: LM-79-08
 Report Number: P601198
 Test Lab: COOPER LIGHTING SOLUTIONS
 Issue Date: 7/29/2022
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
 Product Line: HALO
 Catalog Number: ML406FLD2W1E - TIR4D40FL - TL41R_ TL42S_ 3000K
 Description: RETROFIT, 40D OPTIC, OPEN TRIM
 Light Source: (1) SELECTABLE LUMEN LED D2W / 3000K CCT
 Ballast/Driver: -

Summary

Lumens per Lamp: N/A
 Luminaire Lumens: 694.6 lumens
 Efficiency: N/A
 Efficacy: 83.7 lumens/watt
 Spacing Criteria (0/90/45): 0.67 / 0.67 / 0.63
 Luminous Opening: Circular (Dia: 0.21' x H: 0')
 CIE Type: Direct

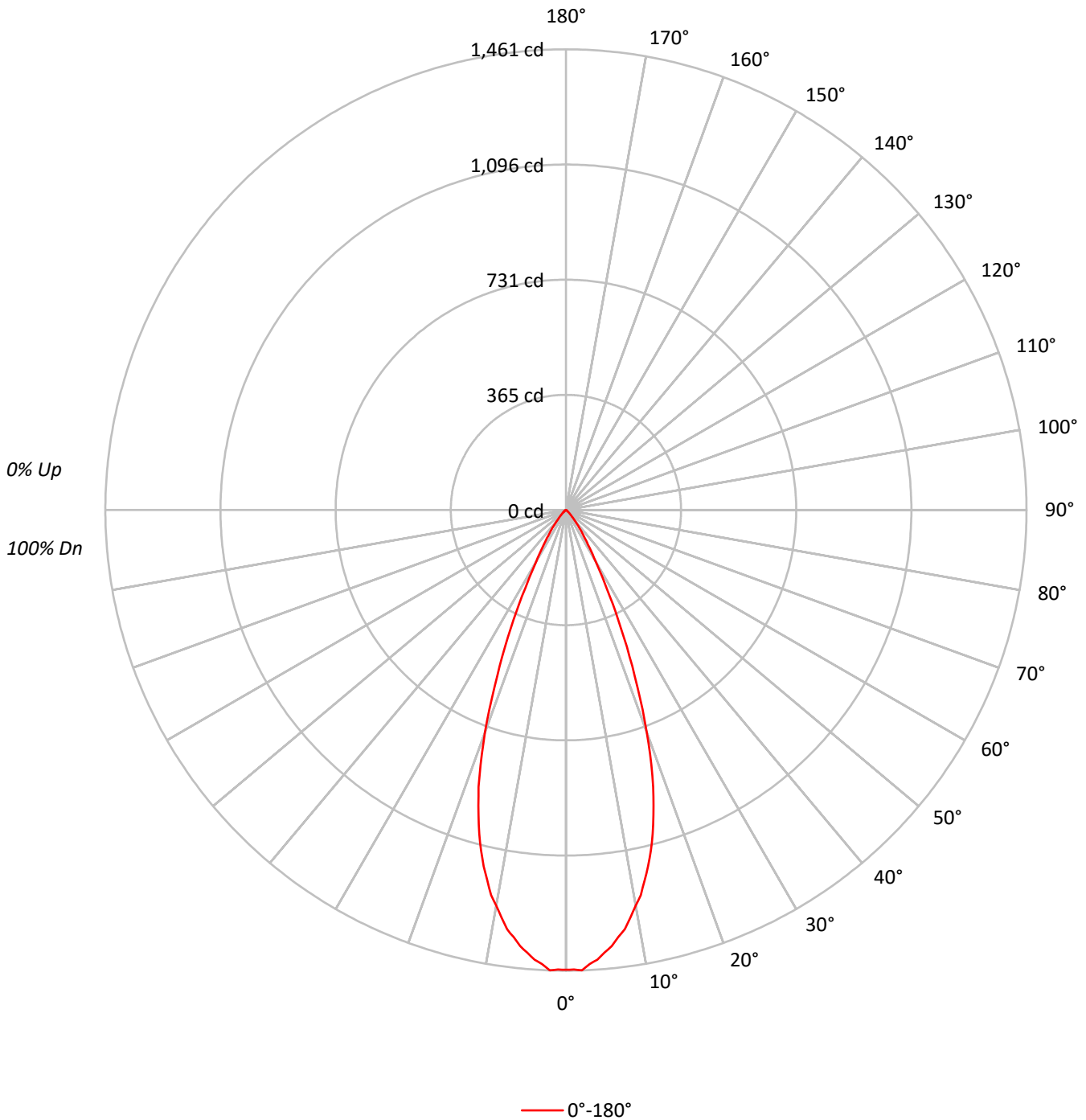
Input Watts (W): 8.3
 Input Voltage (V): NR
 Input Current (Ain): NR
 Voltage Rise (V): NR
 Power Factor: NR
 Total Harmonic Distortion (THDi): NR
 Frequency (hertz): 60
 Stabilization Time: NR
 Operation Time: NR
 Ambient Temperature (°C): NR
 Test Distance: 25 FT



Meas		Calibration Due Date	
Instrument	Identificatio		
Photometer	GONIO 1 11111111	4/22/2021	10/22/2021
Power Meter	XITRON 2801 IN0197	12/1/2020	12/1/2021
AC Power Source	CHROMA 61505 IN0196	12/1/2020	12/1/2021
DC Power Supply	AGILENT E3634A IN0198	11/30/2020	11/30/2021
Room Thermometer	ONSET IN0143	12/1/2020	12/1/2021

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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	114	112	110	108	112	110	108	106	106	104	103		102	101	100		99	98	97	95
2	110	106	102	99	108	104	101	98	101	98	96		98	96	94		95	93	92	90
3	105	100	96	92	103	98	95	91	96	93	90		94	91	89		91	89	87	86
4	101	95	90	86	99	94	89	86	92	88	85		90	87	84		88	85	83	82
5	97	90	85	81	96	89	85	81	87	83	80		86	82	80		84	81	79	78
6	93	86	81	77	92	85	80	77	84	79	76		82	79	76		81	78	75	74
7	90	82	77	73	89	81	77	73	80	76	73		79	75	72		78	75	72	71
8	86	78	73	70	85	78	73	70	77	73	69		76	72	69		75	72	69	68
9	83	75	70	67	82	75	70	67	74	69	66		73	69	66		72	69	66	65
10	80	72	67	64	79	72	67	64	71	67	64		70	66	63		70	66	63	62

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	460480
5°	446391
10°	408555
15°	347663
20°	252157
25°	143614
30°	68329
35°	35618
40°	17848
45°	8574
50°	4912
55°	2312
60°	505
65°	598
70°	0
75°	0
80°	0
85°	0

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.4	18.8
10°-20°	288.6	41.6
20°-30°	192.5	27.7
30°-40°	61.7	8.9
40°-50°	16.8	2.4
50°-60°	4.1	0.6
60°-70°	0.5	0.1
70°-80°	0.0	0.0
80°-90°	0.0	0.0
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°	611.5	88.0
0°-40°	673.2	96.9
0°-60°	694.1	99.9
0°-90°	694.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	694.6	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	1458	
5°	1408	130
15°	1064	289
25°	412	193
35°	92	62
45°	19	17
55°	4	4
65°	1	0
75°	0	0
85°	0	0
90°	0	

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CANDELA DISTRIBUTION (FULL):

0°	
0°	1458.3
1°	1457.4
2°	1460.8
3°	1441.6
4°	1429.9
5°	1408.3
6°	1390.8
7°	1364.1
8°	1342.5
9°	1307.5
10°	1274.2
11°	1244.2
12°	1200.1
13°	1159.3
14°	1113.5
15°	1063.5
17.5°	921.1
20°	750.4
22.5°	569.6
25°	412.2
27.5°	279.8
30°	187.4
32.5°	129.9
35°	92.4
37.5°	65.8
40°	43.3
42.5°	28.3
45°	19.2
47.5°	14.2
50°	10.0
52.5°	6.7
55°	4.2
57.5°	2.5
60°	0.8
62.5°	0.8
65°	0.8
67.5°	0.0
70°	0.0
72.5°	0.0
75°	0.0
77.5°	0.0
80°	0.0
82.5°	0.0
85°	0.0
87.5°	0.0

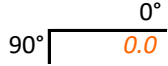
Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269


NVLAP Lab Code: 200050-0



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CANDELA DISTRIBUTION (continued):



(END OF REPORT)