

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: P601259

Luminaire Tested: **ML408LSNFL95FS1E - TIR4D25NFL - TL43R2G\_ TL44S2G\_ 2700K**

Issue Date: 7/29/2022

Tested By:

Approved By:



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**Test Information**

Test Method: LM-79-08  
 Report Number: P601259  
 Test Lab: COOPER LIGHTING SOLUTIONS  
 Issue Date: 7/29/2022  
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
 Product Line: HALO  
 Catalog Number: ML408LSNFL95FS1E - TIR4D25NFL - TL43R2G\_ TL44S2G\_ 2700K  
 Description: RETROFIT, 25D OPTIC, DIFFUSE CLEAR LENS TRIM  
 Light Source: (1) SELECTABLE LUMEN LED 95CRI / 2700K CCT  
 Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
 Luminaire Lumens: 942.7 lumens  
 Efficiency: N/A  
 Efficacy: 91.5 lumens/watt  
 Spacing Criteria (0/90/45): 0.44 / 0.44 / 0.47  
 Luminous Opening: Circular (Dia: 0.21' x H: 0')  
 CIE Type: Direct

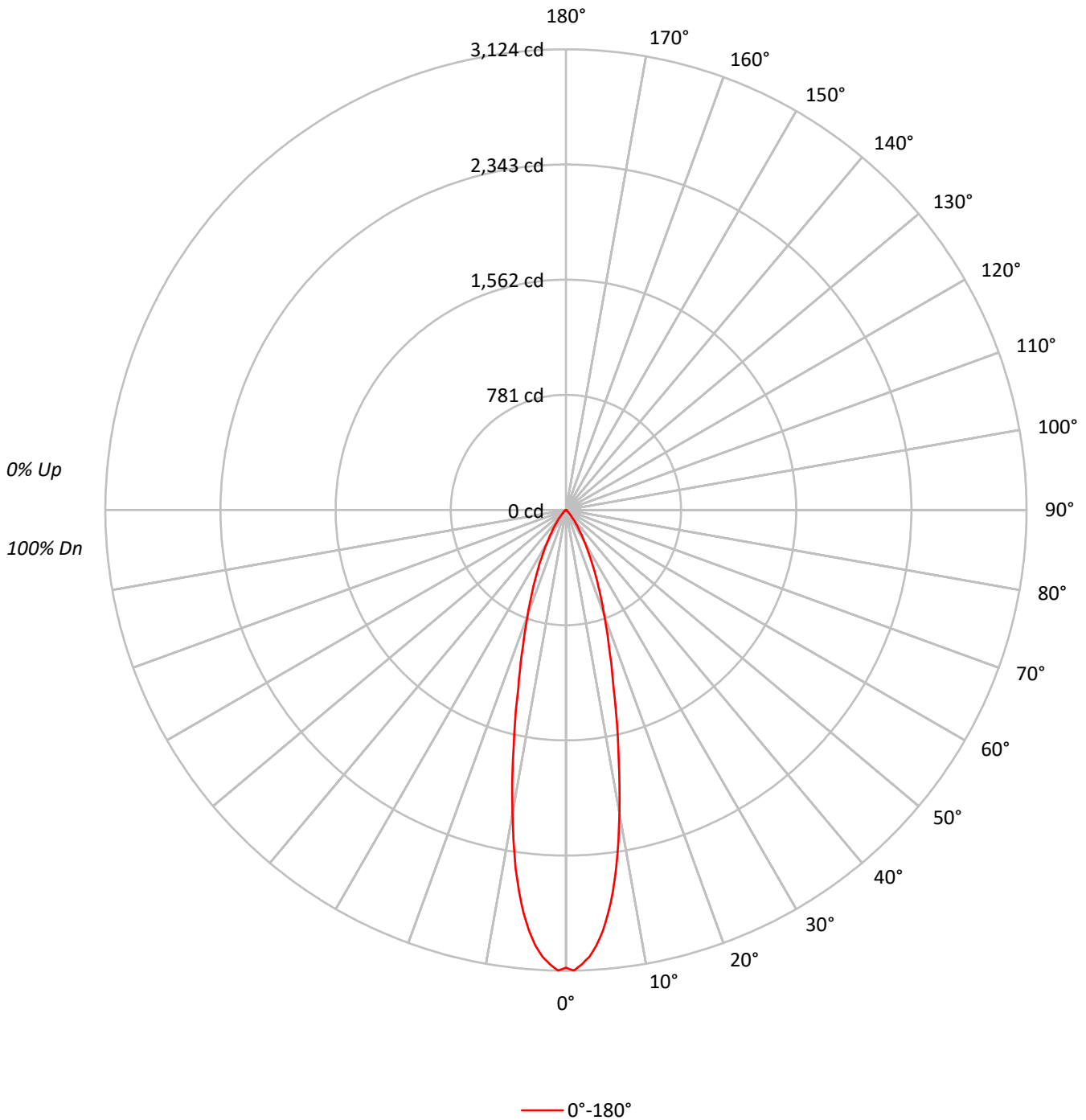
Input Watts (W): 10.3  
 Input Voltage (V): NR  
 Input Current (Ain): NR  
 Voltage Rise (V): NR  
 Power Factor: NR  
 Total Harmonic Distortion (THDi): NR  
 Frequency (hertz): 60  
 Stabilization Time: NR  
 Operation Time: NR  
 Ambient Temperature (°C): NR  
 Test Distance: 25 FT



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

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

	0°
0°	979883
5°	908789
10°	669200
15°	407813
20°	254879
25°	159153
30°	92612
35°	52425
40°	27535
45°	14379
50°	8204
55°	4569
60°	2274
65°	1793
70°	1108
75°	1464
80°	0
85°	0

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	248.4	26.3
10°-20°	354.4	37.6
20°-30°	212.8	22.6
30°-40°	88.7	9.4
40°-50°	27.2	2.9
50°-60°	8.3	0.9
60°-70°	2.1	0.2
70°-80°	0.8	0.1
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°	815.6	86.5
0°-40°	904.3	95.9
0°-60°	939.8	99.7
0°-90°	942.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	942.7	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	3103	
5°	2867	248
15°	1248	354
25°	457	213
35°	136	89
45°	32	27
55°	8	8
65°	2	2
75°	1	1
85°	0	0
90°	0	

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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	3103.2
1°	3123.5
2°	3082.9
3°	3034.0
4°	2961.3
5°	2867.1
6°	2746.6
7°	2610.6
8°	2452.0
9°	2271.9
10°	2087.1
12.5°	1635.1
15°	1247.5
17.5°	967.2
20°	758.5
22.5°	591.5
25°	456.8
27.5°	343.5
30°	254.0
32.5°	186.0
35°	136.0
37.5°	96.6
40°	66.8
42.5°	46.5
45°	32.2
47.5°	22.7
50°	16.7
52.5°	13.1
55°	8.3
57.5°	6.0
60°	3.6
62.5°	2.4
65°	2.4
67.5°	1.2
70°	1.2
72.5°	1.2
75°	1.2
77.5°	0.0
80°	0.0
82.5°	0.0
85°	0.0
87.5°	0.0
90°	0.0

(END OF REPORT)