

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: HALO

Report Number: P1046641

Luminaire Tested: FMNL1112FS5--950

Issue Date: 07/03/2025

Test Information

Test Method: LM-79-2019
Report Number: P1046641
Test Lab: Cooper lighting solutions
Issue Date: 07/03/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: FMNL1112FS5--950
Description: HALO 11 inch 90 CRI COLOR SELECTABLE flush mount White Trim FIXTURE with night light
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

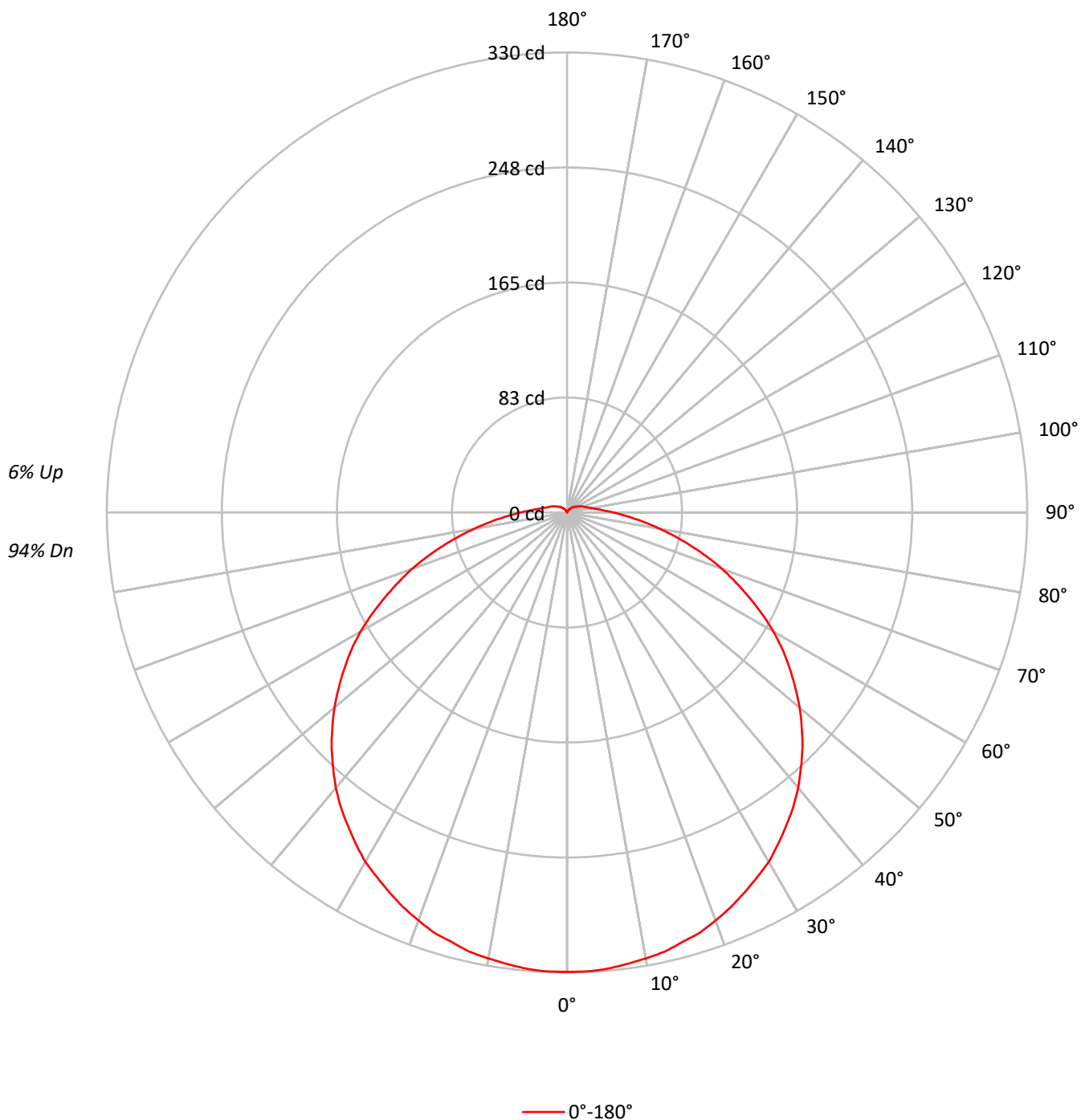
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1149.6 lumens
Efficiency: N/A
Efficacy: 91.2 lumens/watt
Spacing Criteria (0/90/45): 1.3 / 1.3 / 1.43
Luminous Opening: Circular (Dia: 0.9' x H: 0')
CIE Type: Direct

Input Watts (W): 12.6
Input Voltage (V): 120
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: 28.75 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
RW	70	50	30	10		70	50	30	10		50	30	10		50	30	10		50	30	10
RCR																					
0	118	118	118	118		114	114	114	114		108	108	108		102	102	102		97	97	97
1	106	100	96	91		102	98	93	89		92	89	85		87	84	82		83	80	78
2	96	87	79	73		92	84	77	72		80	74	69		76	71	67		72	68	64
3	87	76	67	60		84	73	65	59		70	63	57		66	60	55		63	58	54
4	79	67	57	50		76	65	56	50		62	54	48		59	52	47		56	50	46
5	73	59	50	43		70	58	49	42		55	47	41		52	46	40		50	44	39
6	67	53	44	37		65	52	43	37		49	42	36		47	40	35		45	39	35
7	62	48	39	33		60	47	38	32		45	37	32		43	36	31		41	35	30
8	58	44	35	29		56	43	35	29		41	34	28		39	33	28		38	32	27
9	54	40	32	26		52	39	31	26		38	30	25		36	30	25		35	29	24
10	50	37	29	23		49	36	28	23		35	28	23		33	27	23		32	26	22

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	5575
5°	5581
10°	5580
15°	5588
20°	5607
25°	5617
30°	5654
35°	5662
40°	5696
45°	5714
50°	5733
55°	5749
60°	5787
65°	5773
70°	5857
75°	5995
80°	6606
85°	9280

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 87.5°

Luminance: 15555 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.2	2.7
10°-20°	90.2	7.8
20°-30°	138.9	12.1
30°-40°	171.8	14.9
40°-50°	184.1	16.0
50°-60°	174.3	15.2
60°-70°	142.9	12.4
70°-80°	97.4	8.5
80°-90°	53.4	4.6
90°-100°	26.6	2.3
100°-110°	15.7	1.4
110°-120°	10.5	0.9
120°-130°	6.5	0.6
130°-140°	3.7	0.3
140°-150°	1.7	0.1
150°-160°	0.5	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	260.4	22.6
0°-40°	432.1	37.6
0°-60°	790.6	68.8
0°-90°	1084.4	94.3
90°-120°	52.7	4.6
90°-150°	64.7	5.6
90°-180°	65.0	5.7
0°-180°	1149.6	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	330	
5°	329	31
15°	319	90
25°	301	139
35°	274	172
45°	239	184
55°	195	174
65°	144	143
75°	92	97
85°	48	43
90°	33	18
95°	24	18
105°	14	16
115°	10	10
125°	8	7
135°	5	4
145°	3	2
155°	1	1
165°	0	0
175°	0	0
180°	0	

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CANDELA DISTRIBUTION (FULL):

0°	
0°	329.5
2.5°	329.5
5°	328.6
7.5°	326.7
10°	324.8
12.5°	322.8
15°	319.0
17.5°	316.2
20°	311.4
22.5°	306.6
25°	300.9
27.5°	295.1
30°	289.4
32.5°	281.8
35°	274.1
37.5°	266.5
40°	257.9
42.5°	248.3
45°	238.8
47.5°	228.3
50°	217.8
52.5°	206.3
55°	194.9
57.5°	183.4
60°	171.0
62.5°	157.6
65°	144.2
67.5°	130.9
70°	118.4
72.5°	105.1
75°	91.7
77.5°	79.3
80°	67.8
82.5°	57.3
85°	47.8
87.5°	40.1
90°	33.4
92.5°	27.7
95°	23.9
97.5°	20.1
100°	18.1
102.5°	16.2
105°	14.3
107.5°	13.4
110°	12.4



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CANDELA DISTRIBUTION (continued):

	0°
112.5°	11.5
115°	10.5
117.5°	9.6
120°	8.6
122.5°	7.6
125°	7.6
127.5°	6.7
130°	5.7
132.5°	5.7
135°	4.8
137.5°	3.8
140°	3.8
142.5°	2.9
145°	2.9
147.5°	1.9
150°	1.9
152.5°	1.0
155°	1.0
157.5°	1.0
160°	1.0
162.5°	0.0
165°	0.0
167.5°	0.0
170°	0.0
172.5°	0.0
175°	0.0
177.5°	0.0
180°	0.0

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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room Dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	17.9	19.4	18.3	19.9	20.3	17.9	19.4	18.3	19.9	20.3
	3H	20.0	21.4	20.4	21.9	22.3	20.0	21.4	20.4	21.9	22.3
	4H	20.9	22.2	21.4	22.7	23.2	20.9	22.2	21.4	22.7	23.2
	6H	21.7	23.0	22.2	23.5	24.0	21.7	23.0	22.2	23.5	24.0
	8H	22.1	23.3	22.6	23.8	24.4	22.1	23.3	22.6	23.8	24.4
	12H	22.6	23.7	23.1	24.2	24.8	22.6	23.7	23.1	24.2	24.8
4H	2H	18.6	19.9	19.1	20.4	20.9	18.6	19.9	19.1	20.4	20.9
	3H	20.9	22.1	21.4	22.6	23.1	20.9	22.1	21.4	22.6	23.1
	4H	22.0	23.0	22.5	23.6	24.1	22.0	23.0	22.5	23.6	24.1
	6H	23.0	23.9	23.5	24.5	25.1	23.0	23.9	23.5	24.5	25.1
	8H	23.5	24.4	24.0	24.9	25.5	23.5	24.4	24.0	24.9	25.5
	12H	24.0	24.8	24.6	25.4	26.0	24.0	24.8	24.6	25.4	26.0
8H	4H	22.4	23.3	23.0	23.8	24.4	22.4	23.3	23.0	23.8	24.4
	6H	23.6	24.4	24.2	25.0	25.6	23.6	24.4	24.2	25.0	25.6
	8H	24.3	24.9	24.9	25.5	26.1	24.3	24.9	24.9	25.5	26.1
	12H	25.0	25.6	25.6	26.2	26.8	25.0	25.6	25.6	26.2	26.8
12H	4H	22.5	23.3	23.1	23.9	24.5	22.5	23.3	23.1	23.9	24.5
	6H	23.8	24.5	24.4	25.0	25.7	23.8	24.5	24.4	25.0	25.7
	8H	24.5	25.1	25.1	25.7	26.4	24.5	25.1	25.1	25.7	26.4

(END OF REPORT)