

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: P798406

Luminaire Tested: ESF2ARGBWMBL-WiZ-4000K

Issue Date: 3/27/2024

Test Information

Test Method: LM-79-2019
Report Number: P798406
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2311342A001)
Test Lab: INNOVATION CENTER
Issue Date: 3/27/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ESF2ARGBWMBL-WiZ-4000K
Description: 2400LM FLOOD AND MOTION BLACK WITH
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

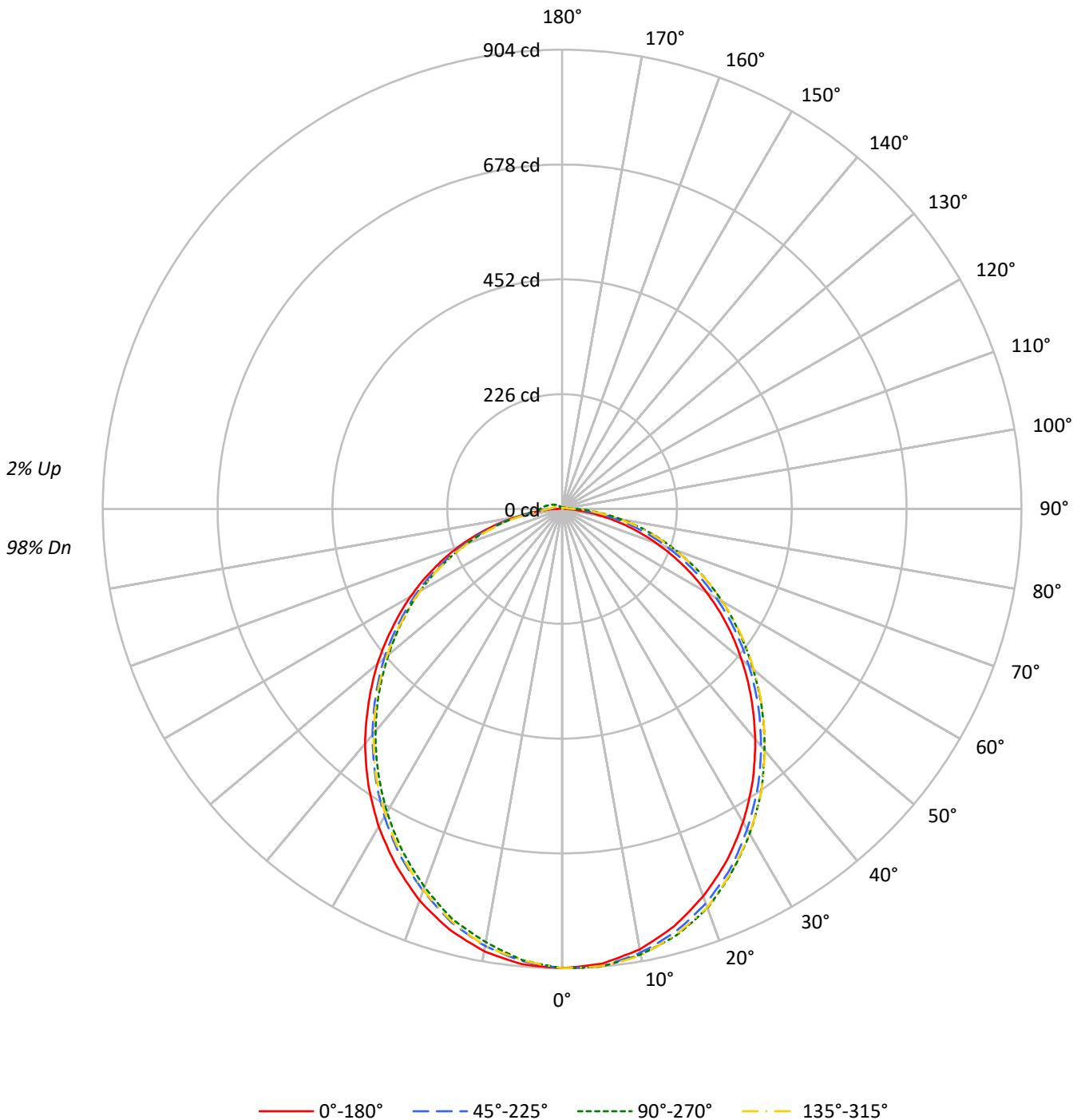
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2408.5 lumens
Efficiency: N/A
Efficacy: 84.2 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.18 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 0.34' x H: 0.13')
CIE Type: Direct

Input Watts (W): 28.6
Input Voltage (V): 120
Input Current (A_{in}): 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: 24 FT

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Luminous Intensity Polar Plot





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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.1	3.5
10°-20°	240.1	10.0
20°-30°	353.5	14.7
30°-40°	411.2	17.1
40°-50°	411.5	17.1
50°-60°	361.8	15.0
60°-70°	274.1	11.4
70°-80°	161.9	6.7
80°-90°	58.5	2.4
90°-100°	18.4	0.8
100°-110°	12.2	0.5
110°-120°	8.3	0.3
120°-130°	5.3	0.2
130°-140°	3.0	0.1
140°-150°	1.6	0.1
150°-160°	1.0	0.0
160°-170°	0.7	0.0
170°-180°	0.2	0.0
0°-30°	678.7	28.2
0°-40°	1089.9	45.3
0°-60°	1863.3	77.4
0°-90°	2357.7	97.9
90°-120°	38.9	1.6
90°-150°	48.8	2.0
90°-180°	51.0	2.1
0°-180°	2408.5	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	904	904	904	904	904	
5°	898	904	900	892	898	85
15°	850	869	857	835	850	240
25°	765	790	773	743	765	352
35°	654	682	664	632	654	409
45°	527	556	538	509	527	407
55°	396	427	408	383	396	354
65°	264	301	279	259	264	261
75°	136	178	152	139	136	144
85°	30	66	42	53	30	36
90°	7	26	9	43	7	7
95°	5	12	4	38	5	4
105°	4	10	3	28	4	4
115°	2	8	2	20	2	3
125°	2	6	2	14	2	2
135°	2	4	2	9	2	1
145°	2	2	2	5	2	1
155°	2	2	2	3	2	1
165°	2	2	2	2	2	1
175°	2	2	2	2	2	0
180°	2	2	2	2	2	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	903.8	903.8	903.8	903.8	903.8	903.8	903.8	903.8	903.8	903.8	903.8
5°	898.3	899.2	903.2	901.9	903.7	902.3	902.9	898.6	899.6	898.8	893.5
10°	880.1	885.4	887.0	889.0	890.4	891.8	892.6	885.7	883.8	879.1	873.4
15°	850.5	856.6	861.7	865.6	868.9	867.8	866.7	862.2	856.7	848.7	842.1
20°	811.4	820.1	826.3	832.0	836.1	831.5	835.0	825.5	820.0	809.3	799.5
25°	765.4	775.2	782.4	786.2	789.5	791.3	788.1	781.7	773.3	761.8	753.6
30°	711.9	723.0	728.1	734.5	738.3	739.3	737.6	733.1	721.6	708.8	699.2
35°	653.8	662.8	670.9	678.3	682.1	682.7	682.4	671.9	664.1	652.0	640.9
40°	591.3	600.2	609.1	617.4	619.8	620.4	620.6	612.6	603.2	592.6	580.4
45°	526.6	536.2	545.3	554.2	556.4	559.7	557.5	549.3	538.0	527.4	518.5
50°	460.9	469.4	479.8	489.1	490.9	493.4	492.6	483.2	474.2	462.8	456.5
55°	395.7	403.8	414.9	424.3	426.9	430.6	429.1	418.4	407.8	397.8	392.1
60°	328.3	338.2	350.3	360.5	363.8	366.2	364.3	354.1	344.1	334.6	329.1
65°	263.8	272.4	285.9	296.2	301.2	303.0	300.6	289.4	279.2	270.6	266.6
70°	198.3	209.0	221.7	233.3	238.1	239.7	236.4	225.2	215.9	207.7	204.4
75°	135.5	145.0	159.3	171.5	178.1	178.8	174.6	162.7	152.0	146.6	144.2
80°	77.0	85.8	101.5	112.1	118.4	119.7	114.7	103.5	92.6	88.5	89.2
85°	30.3	37.8	50.4	59.9	65.9	66.5	60.9	50.2	41.6	41.8	43.2
90°	7.1	9.5	16.0	22.2	26.5	26.6	22.6	15.7	9.4	16.1	23.1
95°	5.2	6.3	10.5	12.6	12.4	12.3	10.9	7.4	3.8	12.4	18.2
100°	4.4	5.3	9.1	11.3	11.5	11.0	10.0	5.9	3.5	9.9	14.9
105°	3.6	4.3	8.0	10.4	10.2	9.9	8.6	4.9	3.3	7.4	12.5
110°	3.1	3.8	6.9	9.1	9.8	8.5	7.5	4.5	2.4	5.4	10.7
115°	2.3	2.7	5.7	7.7	8.5	7.6	6.3	3.4	2.4	4.8	9.9
120°	2.5	2.6	5.1	6.6	7.3	7.0	4.9	2.5	2.4	4.2	7.4
125°	2.2	2.3	3.7	5.8	5.8	5.1	4.5	2.4	2.5	3.6	6.1
130°	2.1	1.8	3.2	4.5	4.9	4.8	3.5	2.0	2.2	3.0	4.8
135°	1.9	1.8	2.6	3.7	3.6	3.4	2.4	1.7	2.0	2.4	3.7
140°	1.8	1.5	1.7	3.0	3.6	2.7	2.3	2.0	2.0	2.2	3.4
145°	1.7	1.7	1.6	2.6	2.4	2.3	1.6	1.3	1.6	2.0	2.3
150°	1.7	1.9	1.6	1.9	2.2	1.9	1.6	1.9	2.1	2.1	2.3
155°	2.4	2.4	1.9	1.8	1.7	1.6	1.8	2.0	2.2	2.3	2.1
160°	2.4	2.4	2.4	2.4	1.9	1.8	1.8	2.2	2.5	2.4	2.5
165°	2.4	2.4	2.4	2.4	2.0	2.0	2.0	2.4	2.4	2.3	2.4
170°	2.4	2.4	2.3	2.4	2.1	2.1	2.2	2.4	2.4	2.2	2.4
175°	2.4	2.4	2.4	2.3	2.4	2.3	2.1	2.3	2.4	2.3	2.4
180°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	903.8	903.8	903.8	903.8	903.8	903.8
5°	891.5	891.5	891.9	891.7	895.5	898.3
10°	868.5	865.6	870.0	873.1	870.1	880.1
15°	836.9	835.4	834.0	840.0	841.0	850.5
20°	794.7	791.6	792.1	798.2	800.9	811.4
25°	746.9	742.9	742.1	750.2	751.1	765.4
30°	694.0	689.0	687.2	695.0	697.6	711.9
35°	635.1	631.5	630.3	639.3	639.8	653.8
40°	574.3	571.1	570.4	576.6	578.8	591.3
45°	512.8	509.3	508.8	513.6	517.0	526.6
50°	449.5	445.6	444.8	450.5	451.4	460.9
55°	386.9	383.2	382.1	385.0	388.1	395.7
60°	324.4	322.2	321.9	322.4	322.0	328.3
65°	262.3	259.1	258.5	259.0	258.1	263.8
70°	201.0	197.8	195.8	196.7	194.4	198.3
75°	142.7	139.0	138.0	136.2	132.5	135.5
80°	90.8	88.0	86.3	82.6	76.8	77.0
85°	51.6	52.7	50.2	39.4	31.1	30.3
90°	38.2	43.2	40.6	26.4	16.2	7.1
95°	32.5	38.5	35.3	20.9	13.1	5.2
100°	27.8	33.1	30.1	17.2	10.9	4.4
105°	23.7	27.8	25.1	14.8	8.4	3.6
110°	19.8	24.0	21.3	12.7	6.6	3.1
115°	17.1	20.0	18.0	10.8	5.2	2.3
120°	13.7	16.5	15.2	9.3	4.6	2.5
125°	11.1	13.6	12.5	7.8	4.0	2.2
130°	9.1	10.9	10.0	6.2	3.3	2.1
135°	7.4	8.7	7.9	4.9	2.7	1.9
140°	4.9	6.6	6.0	3.9	2.4	1.8
145°	4.4	4.7	4.7	3.2	2.3	1.7
150°	2.4	3.6	3.4	2.7	2.3	1.7
155°	2.3	2.8	2.7	2.6	2.5	2.4
160°	2.3	2.6	2.6	2.6	2.4	2.4
165°	2.4	2.1	2.5	2.6	2.4	2.4
170°	2.5	2.4	2.5	2.6	2.4	2.4
175°	2.4	2.4	2.5	2.5	2.4	2.4
180°	2.4	2.4	2.4	2.4	2.4	2.4



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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	24.8	26.4	25.2	26.8	27.1	25.7	27.3	26.1	27.6	28.0
	3H	26.2	27.7	26.6	28.0	28.4	27.3	28.8	27.8	29.1	29.5
	4H	26.7	28.0	27.1	28.4	28.8	27.9	29.3	28.4	29.7	30.1
	6H	26.9	28.2	27.4	28.6	29.0	28.4	29.6	28.8	30.0	30.5
	8H	27.0	28.1	27.4	28.6	29.0	28.5	29.7	29.0	30.1	30.6
	12H	27.0	28.1	27.4	28.5	29.0	28.6	29.8	29.1	30.2	30.7
4H	2H	25.3	26.7	25.8	27.1	27.5	26.1	27.5	26.6	27.9	28.3
	3H	26.9	28.1	27.4	28.5	29.0	28.0	29.1	28.4	29.6	30.0
	4H	27.5	28.5	27.9	28.9	29.4	28.7	29.7	29.2	30.2	30.7
	6H	27.8	28.7	28.3	29.2	29.7	29.3	30.2	29.7	30.6	31.1
	8H	27.9	28.7	28.4	29.2	29.7	29.4	30.3	29.9	30.8	31.3
	12H	27.9	28.6	28.4	29.2	29.7	29.6	30.3	30.1	30.8	31.4
8H	4H	27.7	28.5	28.2	29.0	29.5	28.9	29.7	29.4	30.2	30.7
	6H	28.1	28.8	28.6	29.3	29.8	29.5	30.2	30.1	30.8	31.3
	8H	28.2	28.8	28.7	29.4	29.9	29.8	30.4	30.3	30.9	31.5
	12H	28.2	28.8	28.8	29.3	29.9	30.0	30.5	30.5	31.0	31.7
12H	4H	27.7	28.5	28.2	29.0	29.5	28.9	29.6	29.4	30.2	30.7
	6H	28.1	28.8	28.7	29.2	29.8	29.6	30.2	30.1	30.7	31.3
	8H	28.3	28.8	28.8	29.3	29.9	29.8	30.4	30.4	30.9	31.5

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