

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: P626448

Luminaire Tested: HLBC4LS9FSD2WE010MWR-3500K-600lm

Issue Date: 11/17/2022

Test Information

Test Method: LM-79-2019
Report Number: P626448
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2209543A001)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 11/17/2022
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: HLBC4LS9FSD2WE010MWR-3500K-600lm
Description: 4IN CANLESS LED DOWNLIGHT WITH SELECTABLE CCT AND SELECTABLE LUMEN OUTPUT
Light Source: (1) 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

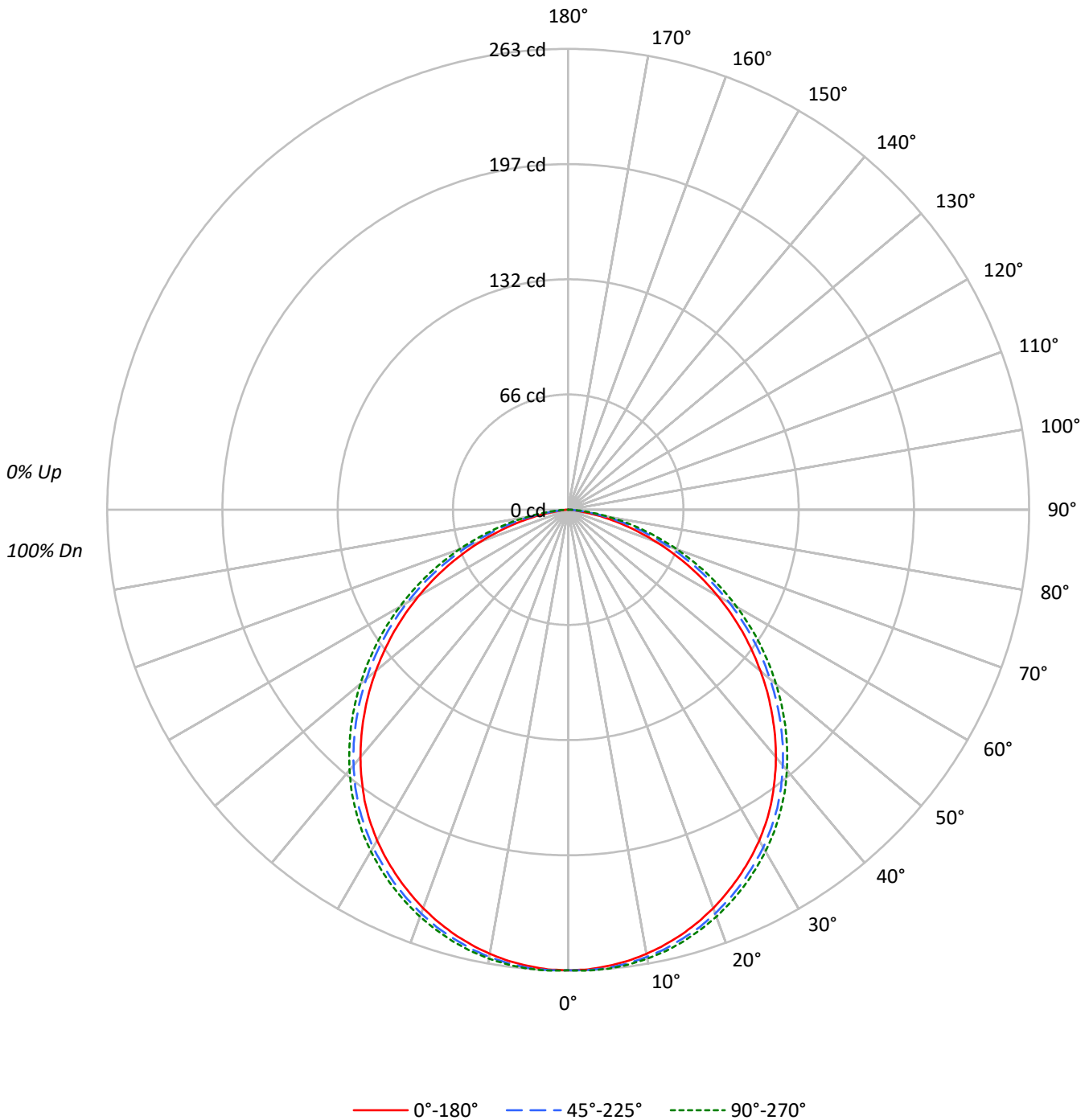
Lumens per Lamp: N/A
Luminaire Lumens: 710.0 lumens
Efficiency: N/A
Efficacy: 79.8 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.27 / 1.36
Luminous Opening: Circular (Dia: 0.33m x H: 0m)
CIE Type: Direct

Input Watts (W): 8.9
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: 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	109	105	101	97	107	103	99	95	98	95	92		94	92	90		91	89	87	85
2	100	92	85	80	97	90	84	79	86	81	77		83	79	75		80	77	73	71
3	91	81	73	66	89	79	72	66	76	70	65		73	68	64		71	66	63	60
4	83	72	63	57	81	70	62	56	68	61	55		66	59	55		63	58	54	52
5	77	64	55	49	75	63	55	48	61	54	48		59	52	47		57	51	47	45
6	71	58	49	43	69	57	49	42	55	48	42		53	47	42		52	46	41	39
7	66	52	44	38	64	52	43	38	50	43	37		49	42	37		47	41	37	35
8	61	48	39	34	60	47	39	34	46	39	33		45	38	33		43	37	33	31
9	57	44	36	30	56	43	36	30	42	35	30		41	35	30		40	34	30	28
10	54	41	33	27	52	40	33	27	39	32	27		38	32	27		37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3019	3019	3019
5°	3013	3026	3030
10°	3001	3022	3034
15°	2982	3011	3030
20°	2957	2996	3021
25°	2925	2976	3005
30°	2890	2951	2984
35°	2838	2914	2956
40°	2764	2855	2909
45°	2670	2780	2847
50°	2558	2685	2765
55°	2426	2576	2670
60°	2264	2441	2554
65°	2057	2266	2404
70°	1783	2038	2209
75°	1415	1735	1943
80°	886	1296	1554
85°	395	593	962

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2847 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.9	3.5
10°-20°	71.4	10.1
20°-30°	108.0	15.2
30°-40°	129.5	18.2
40°-50°	131.4	18.5
50°-60°	114.3	16.1
60°-70°	81.9	11.5
70°-80°	41.0	5.8
80°-90°	7.4	1.0
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°	204.4	28.8
0°-40°	333.9	47.0
0°-60°	579.7	81.6
0°-90°	710.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	710.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	263	263	263	263	263	
5°	261	262	262	262	263	25
15°	251	252	253	254	255	71
25°	231	233	235	236	237	106
35°	202	205	208	209	211	126
45°	164	168	171	173	175	127
55°	121	125	129	131	133	108
65°	76	80	83	86	88	75
75°	32	36	39	41	44	34
85°	3	4	4	5	7	5
90°	0	0	0	1	1	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	262.9	262.9	262.9	262.9	262.9
2.5°	262.6	262.7	263.0	263.0	263.3
5°	261.4	261.9	262.5	262.5	262.9
7.5°	259.8	260.4	261.1	261.5	261.9
10°	257.4	258.2	259.2	259.5	260.2
12.5°	254.4	255.5	256.6	257.2	257.9
15°	250.9	252.1	253.3	254.1	254.9
17.5°	246.7	248.2	249.7	250.3	251.3
20°	242.0	243.7	245.2	246.2	247.2
22.5°	236.7	238.6	240.3	241.2	242.4
25°	230.9	232.9	234.9	235.9	237.2
27.5°	224.7	226.9	228.8	230.1	231.4
30°	218.0	220.3	222.6	223.6	225.1
32.5°	210.6	213.3	215.5	216.9	218.4
35°	202.5	205.3	207.9	209.3	210.9
37.5°	193.6	196.7	199.5	201.0	202.9
40°	184.4	187.6	190.5	192.2	194.1
42.5°	174.6	177.9	181.1	182.9	184.9
45°	164.4	168.0	171.2	173.1	175.3
47.5°	154.0	157.6	161.0	163.0	165.2
50°	143.2	147.0	150.3	152.6	154.8
52.5°	132.3	136.2	139.7	142.0	144.2
55°	121.2	125.0	128.7	131.0	133.4
57.5°	109.9	113.7	117.5	119.9	122.4
60°	98.6	102.4	106.3	108.7	111.2
62.5°	87.1	91.0	94.8	97.4	99.9
65°	75.7	79.6	83.4	86.0	88.5
67.5°	64.2	68.2	72.0	74.5	77.1
70°	53.1	57.0	60.7	63.2	65.8
72.5°	42.3	46.1	49.7	52.2	54.7
75°	31.9	35.6	39.1	41.4	43.8
77.5°	22.3	25.7	28.9	31.2	33.4
80°	13.4	16.5	19.6	21.6	23.5
82.5°	5.9	8.4	11.0	12.7	14.4
85°	3.0	3.7	4.5	5.4	7.3
87.5°	1.1	1.8	2.5	2.9	3.3
90°	0.0	0.1	0.5	0.9	1.3

(END OF REPORT)