

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: P626452

Luminaire Tested: HLBC4LS9FSD2WE010MWR-5000K-600lm

Issue Date: 11/17/2022

Test Information

Test Method: LM-79-2019
Report Number: P626452
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-5000K-600lm
Description: 4IN CANLESS LED DOWNLIGHT WITH SELECTABLE CCT AND SELECTABLE LUMEN OUTPUT
Light Source: (1) 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

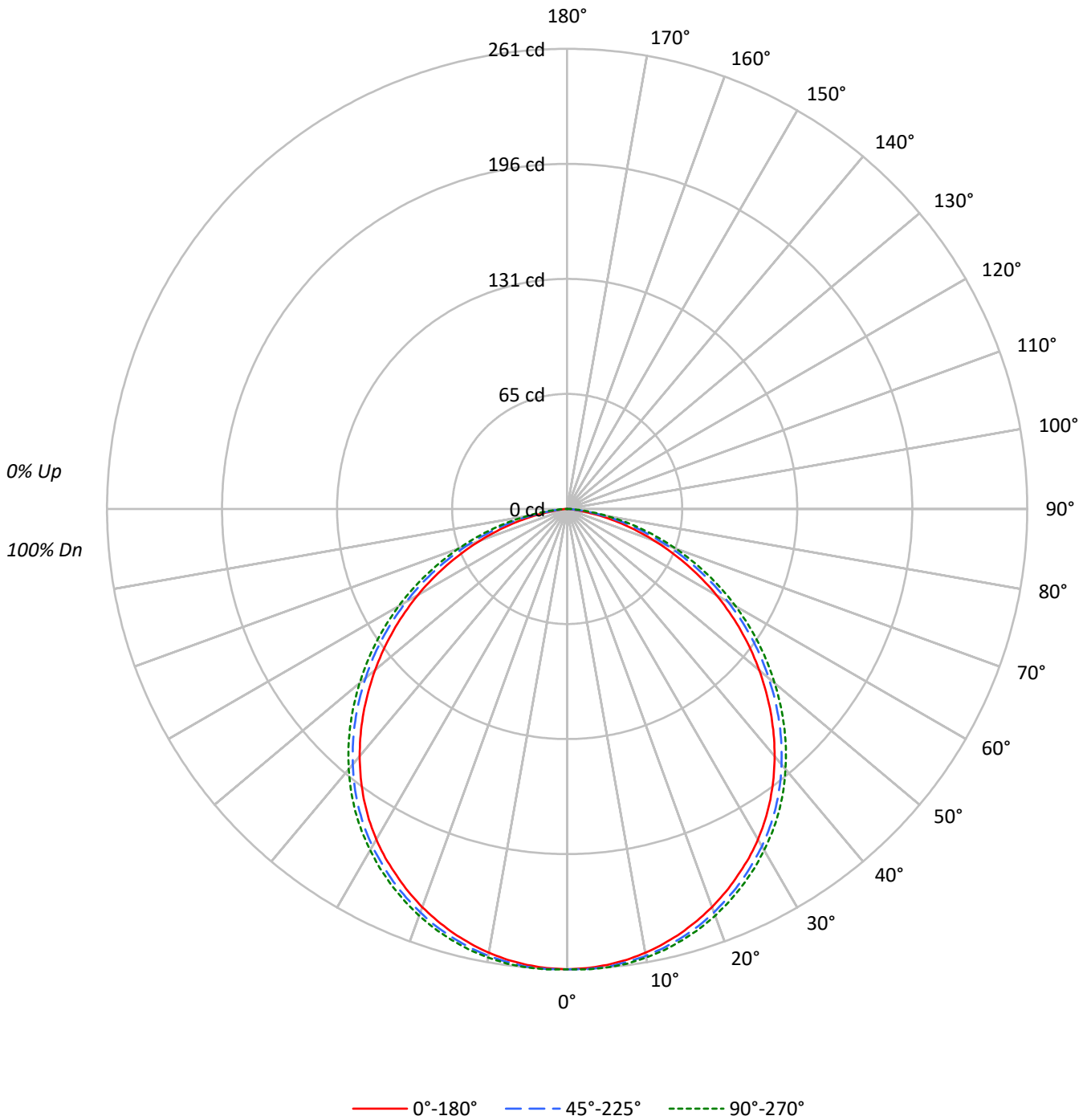
Lumens per Lamp: N/A
Luminaire Lumens: 705.0 lumens
Efficiency: N/A
Efficacy: 79.2 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.27 / 1.36
Luminous Opening: Circular (Dia: 0.33m x H: 0m)
CIE Type: Direct

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°	2998	2998	2998
5°	2992	3005	3008
10°	2980	3001	3012
15°	2961	2991	3009
20°	2936	2975	3000
25°	2904	2956	2984
30°	2870	2930	2963
35°	2817	2893	2937
40°	2744	2836	2888
45°	2652	2760	2825
50°	2540	2667	2746
55°	2410	2558	2650
60°	2248	2423	2535
65°	2040	2250	2388
70°	1769	2024	2192
75°	1406	1721	1930
80°	879	1283	1541
85°	395	580	949

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 2825 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.8	3.5
10°-20°	70.9	10.1
20°-30°	107.3	15.2
30°-40°	128.6	18.2
40°-50°	130.5	18.5
50°-60°	113.5	16.1
60°-70°	81.3	11.5
70°-80°	40.7	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°	202.9	28.8
0°-40°	331.5	47.0
0°-60°	575.6	81.6
0°-90°	705.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	705.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	261	261	261	261	261	
5°	260	260	261	261	261	25
15°	249	250	252	252	253	70
25°	229	231	233	234	236	106
35°	201	204	206	208	210	126
45°	163	167	170	172	174	126
55°	120	124	128	130	132	107
65°	75	79	83	85	88	74
75°	32	35	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°	261.1	261.1	261.1	261.1	261.1
2.5°	260.7	260.9	261.2	261.2	261.4
5°	259.6	260.0	260.7	260.7	261.0
7.5°	258.0	258.6	259.2	259.6	260.1
10°	255.6	256.4	257.4	257.7	258.3
12.5°	252.6	253.7	254.8	255.4	256.1
15°	249.1	250.4	251.6	252.3	253.1
17.5°	244.9	246.4	248.0	248.5	249.6
20°	240.3	242.0	243.5	244.4	245.5
22.5°	235.1	236.9	238.6	239.5	240.7
25°	229.2	231.3	233.3	234.2	235.5
27.5°	223.2	225.3	227.2	228.4	229.8
30°	216.5	218.7	221.0	222.0	223.5
32.5°	209.1	211.8	214.0	215.4	216.8
35°	201.0	203.8	206.4	207.9	209.5
37.5°	192.3	195.3	198.1	199.6	201.4
40°	183.1	186.3	189.2	190.9	192.7
42.5°	173.4	176.7	179.8	181.6	183.6
45°	163.3	166.8	170.0	171.9	174.0
47.5°	152.9	156.5	159.8	161.8	164.0
50°	142.2	145.9	149.3	151.5	153.7
52.5°	131.4	135.2	138.7	141.0	143.2
55°	120.4	124.2	127.8	130.1	132.4
57.5°	109.1	112.9	116.7	119.1	121.5
60°	97.9	101.7	105.5	108.0	110.4
62.5°	86.5	90.3	94.2	96.7	99.2
65°	75.1	79.0	82.8	85.4	87.9
67.5°	63.7	67.8	71.4	74.0	76.5
70°	52.7	56.6	60.3	62.8	65.3
72.5°	42.0	45.8	49.3	51.8	54.4
75°	31.7	35.4	38.8	41.1	43.5
77.5°	22.1	25.5	28.7	31.0	33.2
80°	13.3	16.3	19.4	21.5	23.3
82.5°	5.9	8.3	10.9	12.6	14.3
85°	3.0	3.7	4.4	5.4	7.2
87.5°	1.1	1.8	2.4	2.9	3.2
90°	0.0	0.1	0.5	0.9	1.3

(END OF REPORT)