

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: P626445

Luminaire Tested: HLBC4LS9FSD2WE010MWR-2700K-900lm

Issue Date: 11/17/2022

Test Information

Test Method: LM-79-2019
Report Number: P626445
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-2700K-900lm
Description: 4IN CANLESS LED DOWNLIGHT WITH SELECTABLE CCT AND SELECTABLE LUMEN OUTPUT
Light Source: (1) 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

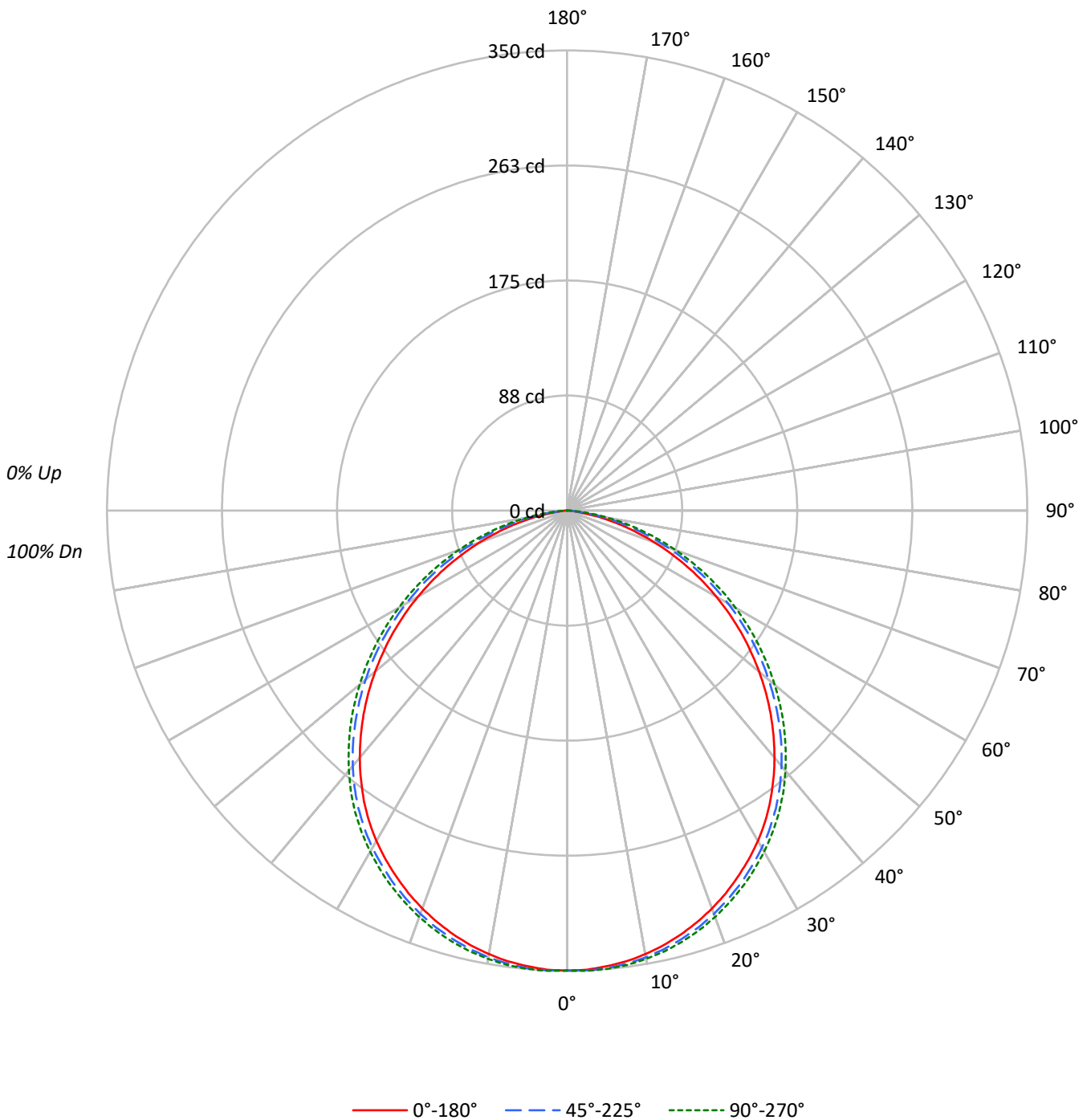
Lumens per Lamp: N/A
Luminaire Lumens: 945.0 lumens
Efficiency: N/A
Efficacy: 72.7 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.27 / 1.36
Luminous Opening: Circular (Dia: 0.33m x H: 0m)
CIE Type: Direct

Input Watts (W): 13
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°	4018	4018	4018
5°	4010	4027	4033
10°	3994	4022	4038
15°	3969	4008	4033
20°	3936	3988	4020
25°	3893	3962	4000
30°	3848	3927	3972
35°	3778	3879	3936
40°	3678	3801	3872
45°	3555	3699	3788
50°	3405	3574	3680
55°	3229	3429	3553
60°	3013	3247	3399
65°	2736	3016	3201
70°	2374	2713	2941
75°	1885	2307	2591
80°	1177	1726	2070
85°	527	777	1278

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3788 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.2	3.5
10°-20°	95.1	10.1
20°-30°	143.8	15.2
30°-40°	172.4	18.2
40°-50°	174.9	18.5
50°-60°	152.2	16.1
60°-70°	109.0	11.5
70°-80°	54.6	5.8
80°-90°	9.9	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°	272.0	28.8
0°-40°	444.4	47.0
0°-60°	771.5	81.6
0°-90°	945.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	945.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	350	350	350	350	350	
5°	348	348	349	349	350	33
15°	334	336	337	338	339	94
25°	307	310	313	314	316	142
35°	270	273	277	279	281	168
45°	219	224	228	230	233	169
55°	161	166	171	174	178	144
65°	101	106	111	114	118	100
75°	42	47	52	55	58	45
85°	4	5	6	7	10	6
90°	0	0	1	1	2	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	349.9	349.9	349.9	349.9	349.9
2.5°	349.5	349.7	350.1	350.1	350.4
5°	347.9	348.5	349.4	349.4	349.9
7.5°	345.8	346.6	347.5	348.0	348.6
10°	342.6	343.7	345.0	345.4	346.3
12.5°	338.6	340.1	341.5	342.3	343.2
15°	333.9	335.6	337.2	338.2	339.3
17.5°	328.3	330.3	332.4	333.1	334.5
20°	322.1	324.4	326.4	327.6	329.0
22.5°	315.1	317.5	319.8	321.0	322.6
25°	307.3	310.0	312.7	313.9	315.7
27.5°	299.1	302.0	304.6	306.2	308.0
30°	290.2	293.2	296.2	297.6	299.6
32.5°	280.3	283.9	286.9	288.7	290.6
35°	269.5	273.2	276.7	278.6	280.8
37.5°	257.7	261.8	265.6	267.6	270.0
40°	245.4	249.7	253.6	255.9	258.3
42.5°	232.4	236.8	241.1	243.4	246.0
45°	218.9	223.6	227.8	230.4	233.3
47.5°	204.9	209.8	214.2	216.9	219.9
50°	190.6	195.6	200.1	203.1	206.0
52.5°	176.1	181.2	185.9	188.9	191.9
55°	161.3	166.4	171.3	174.4	177.5
57.5°	146.3	151.4	156.4	159.6	162.9
60°	131.2	136.3	141.4	144.7	148.0
62.5°	115.9	121.1	126.2	129.6	132.9
65°	100.7	106.0	111.0	114.4	117.8
67.5°	85.4	90.8	95.8	99.2	102.6
70°	70.7	75.9	80.8	84.2	87.6
72.5°	56.3	61.4	66.1	69.4	72.9
75°	42.5	47.4	52.0	55.1	58.4
77.5°	29.7	34.2	38.5	41.5	44.5
80°	17.8	21.9	26.1	28.8	31.3
82.5°	7.9	11.1	14.6	16.9	19.2
85°	4.0	5.0	5.9	7.2	9.7
87.5°	1.5	2.4	3.3	3.8	4.3
90°	0.1	0.1	0.7	1.2	1.8

(END OF REPORT)