

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: P626429

Luminaire Tested: HLBC4069FSD2W1EMW-2700K

Issue Date: 11/17/2022

Test Information

Test Method: LM-79-2019
Report Number: P626429
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2210273A001)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 11/17/2022
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: HLBC4069FSD2W1EMW-2700K
Description: 4IN CANLESS LED DOWNLIGHT WITH SELECTABLE CCT
Light Source: (1) 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

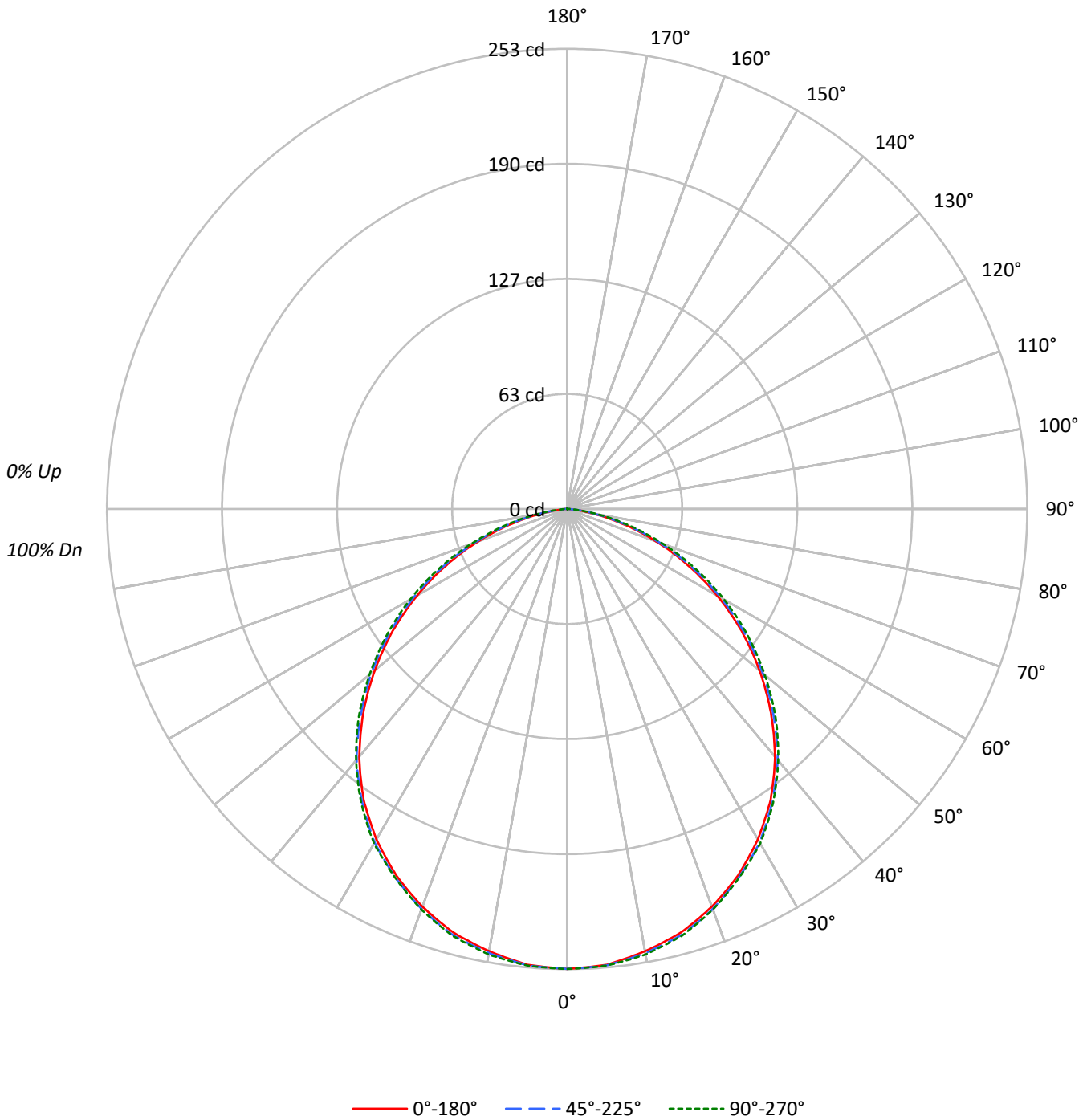
Lumens per Lamp: N/A
Luminaire Lumens: 665.0 lumens
Efficiency: N/A
Efficacy: 78.2 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.25 / 1.34
Luminous Opening: Circular (Dia: 0.33m x H: 0m)
CIE Type: Direct

Input Watts (W): 8.5
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



TEST NUMBER: P626429
CATALOG NUMBER: HLBC4069FSD2W1EMW-2700K

Luminous Intensity Polar Plot





TEST NUMBER: P626429
 CATALOG NUMBER: HLBC4069FSD2W1EMW-2700K

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	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					100			
1	109	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87					85				
2	100	92	86	80	97	90	84	79	87	82	77	83	79	76	80	77	74					72				
3	91	81	73	67	89	80	72	66	77	70	65	74	69	64	71	67	63					61				
4	84	72	64	57	81	71	63	57	68	61	56	66	60	55	64	59	54					52				
5	77	65	56	49	75	63	55	49	61	54	48	59	53	48	58	52	47					45				
6	71	58	49	43	69	57	49	43	55	48	43	54	47	42	52	46	42					40				
7	66	53	44	38	64	52	44	38	50	43	38	49	42	37	48	42	37					35				
8	62	48	40	34	60	48	40	34	46	39	34	45	38	34	44	38	33					31				
9	58	44	36	31	56	44	36	31	43	35	30	41	35	30	40	35	30					28				
10	54	41	33	28	53	40	33	28	39	32	28	38	32	28	38	32	27					26				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2904	2904	2904
5°	2899	2902	2905
10°	2879	2890	2900
15°	2867	2883	2889
20°	2843	2860	2864
25°	2816	2832	2834
30°	2780	2807	2816
35°	2735	2756	2767
40°	2665	2699	2707
45°	2574	2608	2634
50°	2467	2510	2533
55°	2344	2386	2424
60°	2186	2241	2292
65°	1994	2051	2116
70°	1742	1810	1883
75°	1397	1486	1579
80°	879	998	1124
85°	395	448	514

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2634 cd/sqm



TEST NUMBER: P626429
 CATALOG NUMBER: HLBC4069FSD2W1EMW-2700K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.9	3.6
10°-20°	68.3	10.3
20°-30°	102.9	15.5
30°-40°	122.8	18.5
40°-50°	123.7	18.6
50°-60°	106.4	16.0
60°-70°	74.7	11.2
70°-80°	35.7	5.4
80°-90°	6.0	0.9
90°-100°	0.1	0.0
100°-110°	0.1	0.0
110°-120°	0.1	0.0
120°-130°	0.1	0.0
130°-140°	0.1	0.0
140°-150°	0.1	0.0
150°-160°	0.1	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	195.1	29.3
0°-40°	317.9	47.8
0°-60°	547.9	82.4
0°-90°	664.4	99.9
90°-120°	0.3	0.0
90°-150°	0.5	0.1
90°-180°	1.0	0.2
0°-180°	665.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	253	253	253	253	253	
5°	252	252	252	251	252	24
15°	241	242	242	242	243	68
25°	222	224	224	223	224	102
35°	195	196	197	197	197	122
45°	158	160	161	160	162	122
55°	117	118	119	119	121	105
65°	73	75	76	76	78	73
75°	32	32	34	34	36	34
85°	3	3	3	4	4	5
90°	0	0	0	0	0	0
95°	0	0	0	0	0	0
105°	0	0	0	0	0	0
115°	0	0	0	0	0	0
125°	0	0	0	0	0	0
135°	0	0	0	0	0	0
145°	0	0	0	0	0	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P626429
 CATALOG NUMBER: HLBC4069FSD2W1EMW-2700K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	252.9	252.9	252.9	252.9	252.9
5°	251.5	252.3	251.8	250.9	252.0
10°	246.9	248.5	247.9	247.0	248.7
15°	241.2	242.2	242.5	241.7	243.0
20°	232.7	234.0	234.1	233.1	234.4
25°	222.3	223.7	223.5	223.3	223.7
30°	209.7	211.2	211.7	211.0	212.4
35°	195.1	196.3	196.6	196.8	197.4
40°	177.8	179.2	180.1	179.0	180.6
45°	158.5	160.3	160.6	160.5	162.2
50°	138.1	139.6	140.5	140.5	141.8
55°	117.1	118.3	119.2	119.3	121.1
60°	95.2	96.7	97.6	98.0	99.8
65°	73.4	74.6	75.5	75.9	77.9
70°	51.9	52.9	53.9	54.5	56.1
75°	31.5	32.3	33.5	34.0	35.6
80°	13.3	14.2	15.1	15.8	17.0
85°	3.0	3.2	3.4	3.6	3.9
90°	0.1	0.1	0.1	0.2	0.3
95°	0.1	0.1	0.1	0.1	0.1
100°	0.0	0.1	0.1	0.1	0.0
105°	0.1	0.1	0.1	0.1	0.0
110°	0.1	0.1	0.1	0.1	0.0
115°	0.1	0.1	0.1	0.1	0.1
120°	0.1	0.1	0.1	0.1	0.1
125°	0.1	0.1	0.1	0.1	0.1
130°	0.1	0.1	0.1	0.1	0.1
135°	0.1	0.1	0.1	0.1	0.1
140°	0.1	0.1	0.1	0.1	0.1
145°	0.1	0.1	0.1	0.1	0.1
150°	0.1	0.1	0.1	0.1	0.2
155°	0.1	0.1	0.1	0.1	0.2
160°	0.1	0.1	0.1	0.1	0.2
165°	0.2	0.2	0.2	0.2	0.2
170°	0.2	0.2	0.2	0.2	0.2
175°	0.2	0.2	0.2	0.2	0.2
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)