

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: P626434

Luminaire Tested: HLBC4LS9FSD2W1EMWR-2700K-600lm

Issue Date: 11/17/2022

Test Information

Test Method: LM-79-2019
Report Number: P626434
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2209627A001)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 11/17/2022
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: HLBC4LS9FSD2W1EMWR-2700K-600lm
Description: 4IN CANLESS LED DOWNLIGHT WITH SELECTABLE CCT AND SELECTABLE LUMEN OUTPUT
Light Source: (1) 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

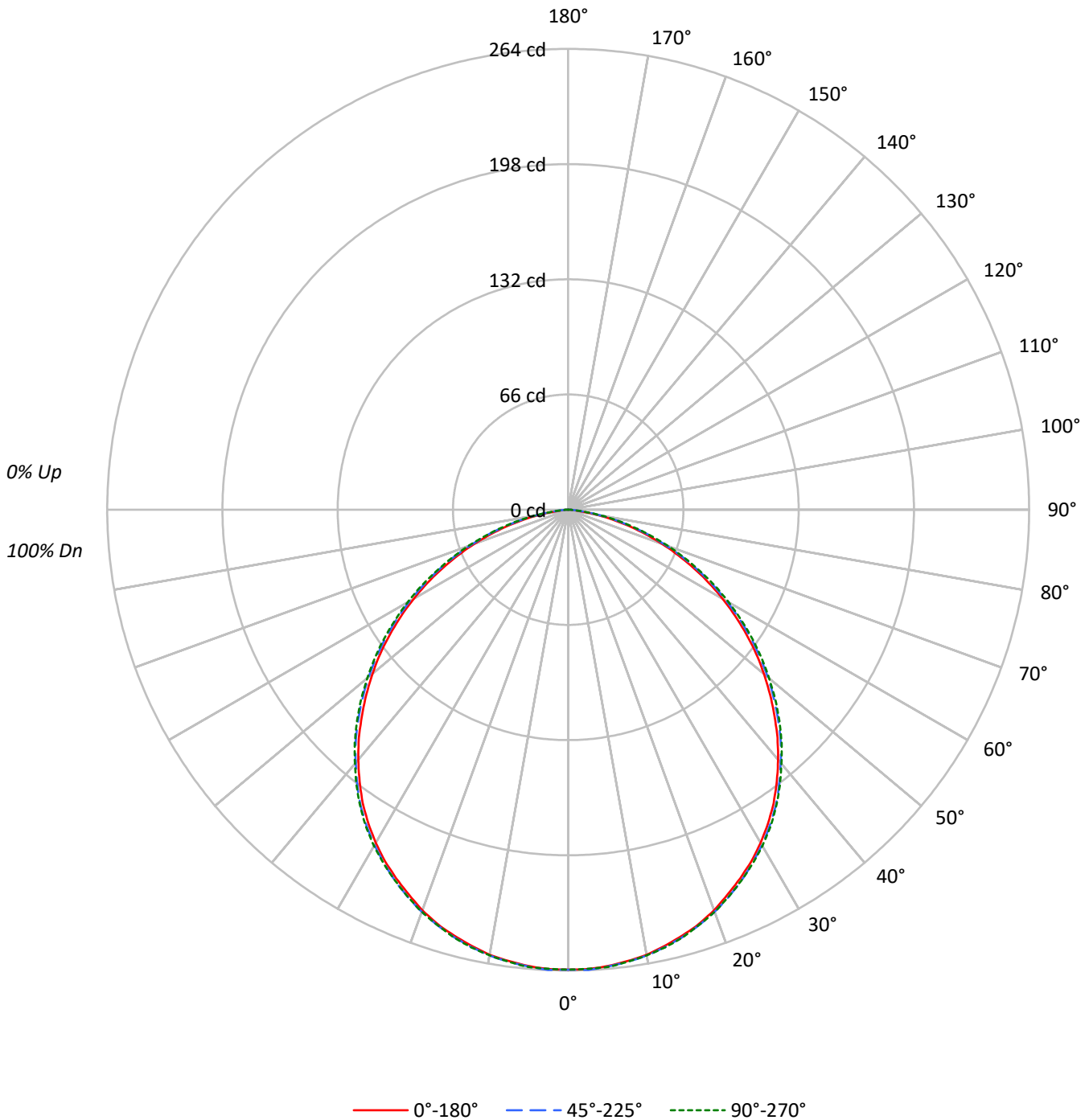
Lumens per Lamp: N/A
Luminaire Lumens: 705.0 lumens
Efficiency: N/A
Efficacy: 77.5 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.25 / 1.35
Luminous Opening: Circular (Dia: 0.33m x H: 0m)
CIE Type: Direct

Input Watts (W): 9.1
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	96	98	95	93		95	92	90		91	89	87	85
2	100	92	85	80	97	90	84	79	86	81	77		83	79	75		80	77	74	71
3	91	81	73	67	89	79	72	66	76	70	65		74	68	64		71	67	63	61
4	84	72	63	57	81	71	62	56	68	61	56		66	60	55		64	58	54	52
5	77	64	55	49	75	63	55	49	61	54	48		59	53	48		57	52	47	45
6	71	58	49	43	69	57	49	43	55	48	42		54	47	42		52	46	41	39
7	66	53	44	38	64	52	44	38	50	43	37		49	42	37		47	41	37	35
8	61	48	40	34	60	47	39	34	46	39	33		45	38	33		44	38	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	28	52	40	33	28	39	32	27		38	32	27		37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3026	3026	3026
5°	3024	3028	3031
10°	3019	3024	3023
15°	3003	3012	3015
20°	2984	2996	2996
25°	2952	2972	2971
30°	2922	2942	2949
35°	2875	2904	2910
40°	2803	2837	2848
45°	2713	2759	2777
50°	2613	2665	2683
55°	2494	2548	2574
60°	2347	2404	2441
65°	2160	2231	2266
70°	1914	1998	2045
75°	1579	1695	1739
80°	1065	1230	1283
85°	461	514	632

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 2777 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	25.0	3.5
10°-20°	71.4	10.1
20°-30°	107.9	15.3
30°-40°	129.0	18.3
40°-50°	130.6	18.5
50°-60°	113.4	16.1
60°-70°	80.9	11.5
70°-80°	40.1	5.7
80°-90°	6.7	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°	204.2	29.0
0°-40°	333.3	47.3
0°-60°	577.3	81.9
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°	264	264	264	264	264	
5°	262	262	263	262	263	25
15°	253	253	253	253	254	71
25°	233	234	235	234	234	107
35°	205	206	207	207	208	128
45°	167	169	170	170	171	129
55°	125	126	127	128	129	111
65°	80	81	82	82	83	79
75°	36	37	38	38	39	38
85°	4	4	4	4	5	6
90°	0	0	0	0	1	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	263.5	263.5	263.5	263.5	263.5
2.5°	263.4	263.0	263.9	263.4	263.2
5°	262.4	262.4	262.7	262.4	263.0
7.5°	260.8	260.9	261.2	261.7	261.2
10°	258.9	258.7	259.4	259.2	259.3
12.5°	255.9	255.9	256.6	256.2	256.8
15°	252.6	252.9	253.4	252.8	253.6
17.5°	248.9	248.7	249.5	249.4	249.4
20°	244.2	244.4	245.2	245.3	245.2
22.5°	238.6	239.5	240.1	239.5	240.0
25°	233.0	233.7	234.6	234.0	234.5
27.5°	227.1	227.8	228.4	228.2	228.7
30°	220.4	221.2	221.9	221.5	222.4
32.5°	213.0	213.9	214.8	214.6	215.5
35°	205.1	206.1	207.2	206.6	207.6
37.5°	196.2	197.5	198.5	198.5	199.1
40°	187.0	188.2	189.3	189.5	190.0
42.5°	177.4	178.7	180.2	179.9	180.9
45°	167.1	168.8	169.9	170.0	171.0
47.5°	156.8	158.3	159.7	160.1	160.9
50°	146.3	147.6	149.2	149.4	150.2
52.5°	135.8	137.0	138.4	138.9	139.6
55°	124.6	126.0	127.3	127.8	128.6
57.5°	113.5	114.9	116.1	116.7	117.4
60°	102.2	103.7	104.7	105.4	106.3
62.5°	90.9	92.4	93.5	93.9	94.9
65°	79.5	80.9	82.1	82.5	83.4
67.5°	68.2	69.6	70.9	71.0	72.1
70°	57.0	58.4	59.5	59.7	60.9
72.5°	46.1	47.6	48.7	48.7	49.8
75°	35.6	37.0	38.2	38.2	39.2
77.5°	25.5	27.0	28.1	28.1	29.0
80°	16.1	17.5	18.6	18.8	19.4
82.5°	7.6	8.8	9.8	10.2	10.8
85°	3.5	3.8	3.9	4.0	4.8
87.5°	1.5	1.8	2.1	2.2	2.3
90°	0.0	0.1	0.2	0.3	0.6

(END OF REPORT)