

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: HALO

Report Number: P645290

Luminaire Tested: **RLNL56109FSD2W1EWH-2700K**

Issue Date: 02/28/2023

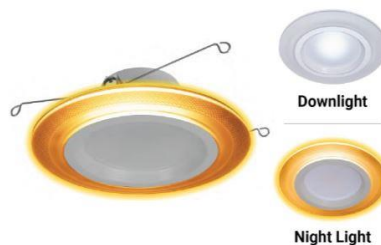
**Test Information**

Test Method: LM-79-08  
Report Number: P645290  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (ETA23010002P-002)  
Test Lab: ETA Testing Technology  
Issue Date: 02/28/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: RLNL56109FSD2W1EWH-2700K  
Description: 6" 90 CRI COLOR TUNING RECESSED DOWNLIGHT RETROFIT DIM TO WARM  
FIXTURE w/ NIGHTLIGHT  
Light Source: 90 CRI 2700K LEDS  
Ballast/Driver: ELECTRICAL DRIVER

**Summary**

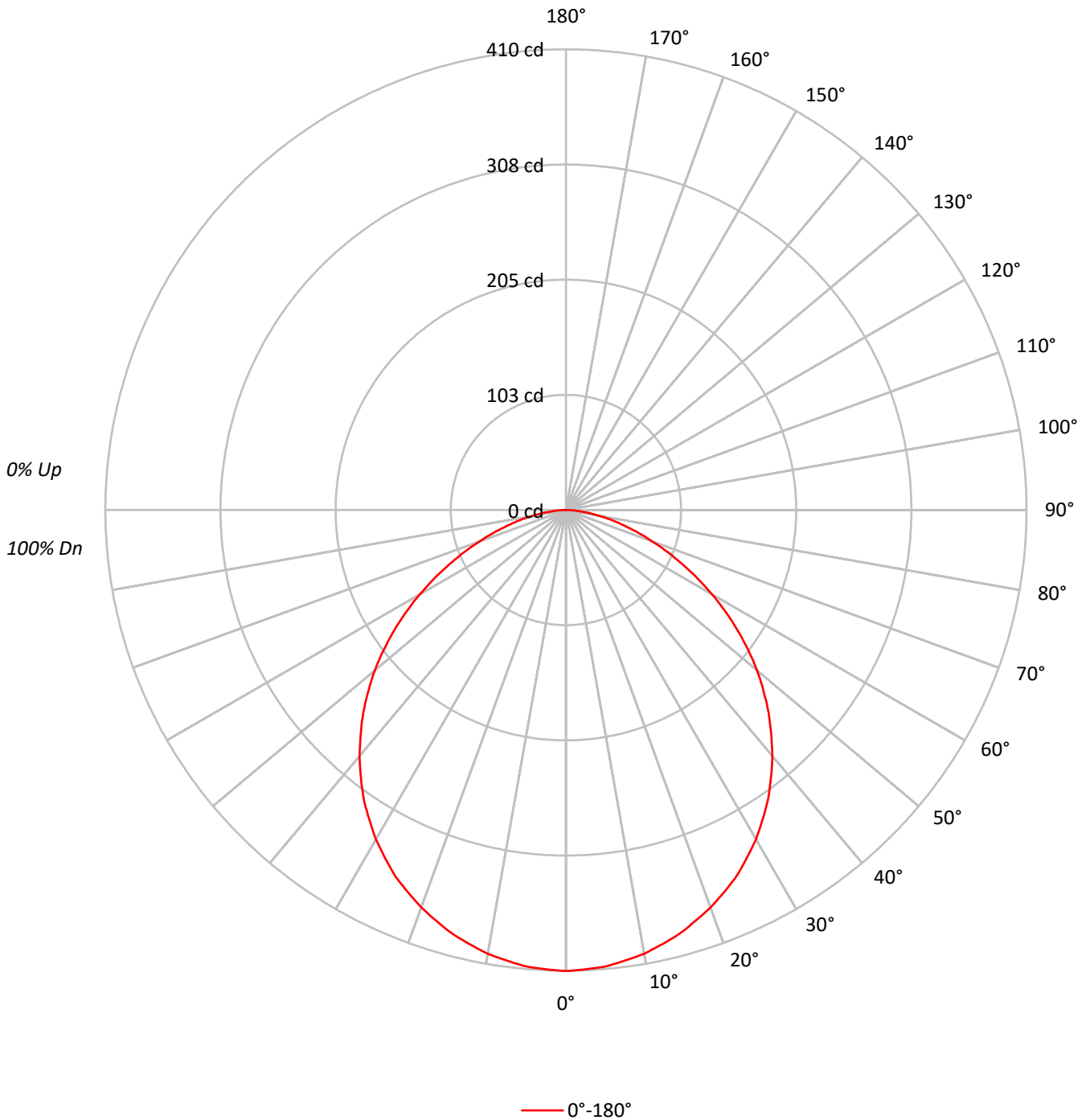
Lumens per Lamp: N/A  
Luminaire Lumens: 1060.4 lumens  
Efficiency: N/A  
Efficacy: 97.3 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.23 / 1.33  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

Input Watts (W): 10.9  
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				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	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	98	95	93	94	92	90	91	89	87	85			85
2	100	92	85	80	97	90	84	79	87	82	77	83	79	75	80	77	74	72			72
3	91	81	73	67	89	80	72	66	77	70	65	74	69	64	71	67	63	61			61
4	84	72	64	57	82	71	63	57	68	61	56	66	60	55	64	59	54	52			52
5	77	65	56	49	75	64	55	49	61	54	49	59	53	48	58	52	48	45			45
6	71	58	50	43	69	57	49	43	56	48	43	54	47	42	52	47	42	40			40
7	66	53	44	38	65	52	44	38	51	43	38	49	43	38	48	42	37	35			35
8	62	48	40	34	60	48	40	34	46	39	34	45	39	34	44	38	34	32			32
9	58	44	36	31	56	44	36	31	43	36	31	42	35	31	41	35	30	29			29
10	54	41	33	28	53	41	33	28	40	33	28	39	32	28	38	32	28	26			26

**AVERAGE LUMINANCE (cd/sqm):**

	0°
0°	22498
5°	22441
10°	22322
15°	22162
20°	21959
25°	21745
30°	21415
35°	21007
40°	20453
45°	19777
50°	18942
55°	17834
60°	16468
65°	14839
70°	13143
75°	11438
80°	9566
85°	7045



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	38.7	3.7
10°-20°	110.2	10.4
20°-30°	165.5	15.6
30°-40°	196.1	18.5
40°-50°	196.6	18.5
50°-60°	166.7	15.7
60°-70°	114.1	10.8
70°-80°	58.1	5.5
80°-90°	14.5	1.4
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°	314.4	29.6
0°-40°	510.5	48.1
0°-60°	873.7	82.4
0°-90°	1060.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1060.4	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	410	
5°	408	39
15°	390	110
25°	360	165
35°	314	196
45°	255	197
55°	187	167
65°	114	114
75°	54	58
85°	11	15
90°	1	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	410.4
5°	407.8
10°	401.0
15°	390.5
20°	376.4
25°	359.5
30°	338.3
35°	313.9
40°	285.8
45°	255.1
50°	222.1
55°	186.6
60°	150.2
65°	114.4
70°	82.0
75°	54.0
80°	30.3
85°	11.2
90°	0.6

(END OF REPORT)