

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 COMMERCIAL

Report Number: P241882

Luminaire Tested: **PRS440D010-S4M24-41SMDMW**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P241882  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-53)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PRS440D010-S4M24-41SMDMW  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM DISTRIBUTION, DEEP TRIM MATTE WHITE  
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3588.0 lumens  
Efficiency: N/A  
Efficacy: 94.4 lumens/watt  
Spacing Criteria (0/90/45): 0.98 / 0.98 / 1.02  
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')  
CIE Type: Direct

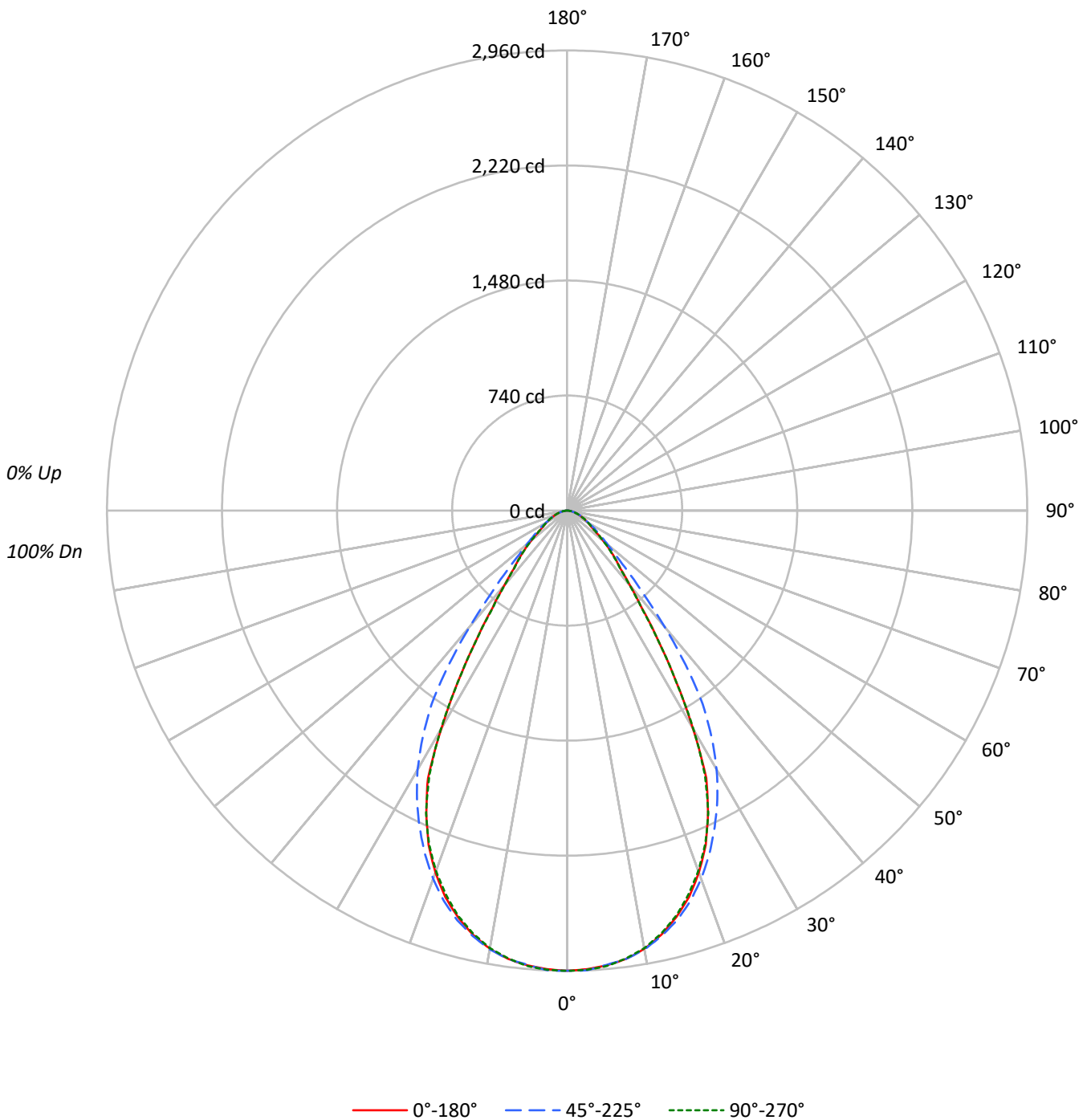
Input Watts (W): 38  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	112	109	106	103	110	107	104	102	103	100	98	99	97	95	95	94	93	91
2	105	100	95	91	103	98	93	90	94	91	88	91	88	86	89	86	84	82
3	99	91	85	81	97	90	84	80	87	82	79	85	81	77	82	79	76	74
4	93	84	78	73	91	83	77	72	81	75	71	78	74	70	77	73	70	68
5	87	78	71	66	86	77	70	66	75	69	65	73	68	64	71	67	64	62
6	82	72	65	60	81	71	65	60	70	64	60	68	63	59	67	62	59	57
7	78	67	60	55	76	66	60	55	65	59	55	64	58	55	62	58	54	53
8	73	63	56	51	72	62	55	51	61	55	51	60	54	51	59	54	50	49
9	69	59	52	47	68	58	52	47	57	51	47	56	51	47	55	50	47	45
10	66	55	48	44	65	55	48	44	54	48	44	53	48	44	52	47	44	42

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

	0°	45°	90°
0°	226584	226584	226584
5°	225636	225336	225943
10°	222447	222758	222144
15°	214663	216216	214045
20°	201790	205309	200829
25°	181041	189663	181370
30°	142962	170026	144005
35°	95386	141976	95386
40°	62770	97282	61981
45°	47175	59071	46753
50°	36462	40202	35998
55°	26717	30907	26717
60°	23438	24647	23438
65°	20629	21336	20629
70°	17568	18441	18441
75°	16266	16266	16266
80°	13841	13841	13841
85°	10363	13788	10363



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	278.0	7.7
10°-20°	760.6	21.2
20°-30°	998.9	27.8
30°-40°	770.4	21.5
40°-50°	387.3	10.8
50°-60°	203.4	5.7
60°-70°	114.9	3.2
70°-80°	58.4	1.6
80°-90°	16.0	0.4
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°	2037.6	56.8
0°-40°	2808.0	78.3
0°-60°	3398.6	94.7
0°-90°	3588.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3588.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2960	2960	2960	2960	2960	
5°	2937	2941	2933	2941	2941	278
15°	2709	2717	2728	2713	2701	758
25°	2144	2206	2246	2202	2148	968
35°	1021	1194	1519	1197	1021	654
45°	436	479	546	475	432	342
55°	200	220	232	220	200	189
65°	114	114	118	114	114	113
75°	55	55	55	55	55	58
85°	12	12	16	12	12	15
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2960.2	2960.2	2960.2	2960.2	2960.2
2.5°	2952.3	2956.3	2960.2	2956.3	2956.3
5°	2936.6	2940.6	2932.7	2940.6	2940.6
7.5°	2909.1	2905.2	2909.1	2905.2	2905.2
10°	2862.0	2862.0	2866.0	2858.1	2858.1
12.5°	2795.3	2799.2	2803.1	2799.2	2787.4
15°	2708.9	2716.8	2728.5	2712.8	2701.1
17.5°	2606.8	2614.7	2634.3	2610.8	2591.1
20°	2477.3	2496.9	2520.5	2496.9	2465.5
22.5°	2328.1	2367.4	2390.9	2359.5	2320.2
25°	2143.6	2206.4	2245.7	2202.5	2147.5
27.5°	1939.4	2017.9	2092.5	2025.8	1919.8
30°	1617.5	1782.4	1923.7	1790.2	1629.3
32.5°	1307.3	1487.9	1731.4	1487.9	1307.3
35°	1020.8	1193.5	1519.4	1197.4	1020.8
37.5°	789.1	938.3	1252.4	938.3	781.3
40°	628.2	726.3	973.6	722.4	620.3
42.5°	510.4	581.0	722.4	577.1	502.5
45°	435.8	479.0	545.7	475.0	431.9
47.5°	369.0	404.4	416.2	400.4	365.1
50°	306.2	341.6	337.6	337.6	302.3
52.5°	247.3	274.8	278.7	274.8	247.3
55°	200.2	219.9	231.6	219.9	200.2
57.5°	172.7	180.6	196.3	180.6	176.7
60°	153.1	157.0	161.0	157.0	153.1
62.5°	133.5	133.5	133.5	133.5	133.5
65°	113.9	113.9	117.8	113.9	113.9
67.5°	94.2	98.1	98.1	98.1	94.2
70°	78.5	82.4	82.4	82.4	82.4
72.5°	66.7	66.7	66.7	66.7	66.7
75°	55.0	55.0	55.0	55.0	55.0
77.5°	43.2	43.2	43.2	43.2	43.2
80°	31.4	31.4	31.4	31.4	31.4
82.5°	19.6	23.6	23.6	23.6	19.6
85°	11.8	11.8	15.7	11.8	11.8
87.5°	7.9	7.9	7.9	7.9	7.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)