

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: P241837

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

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P241837  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-50)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PRS440D010-S4M24-41SMDMB  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM DISTRIBUTION, DEEP TRIM MATTE BLACK  
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

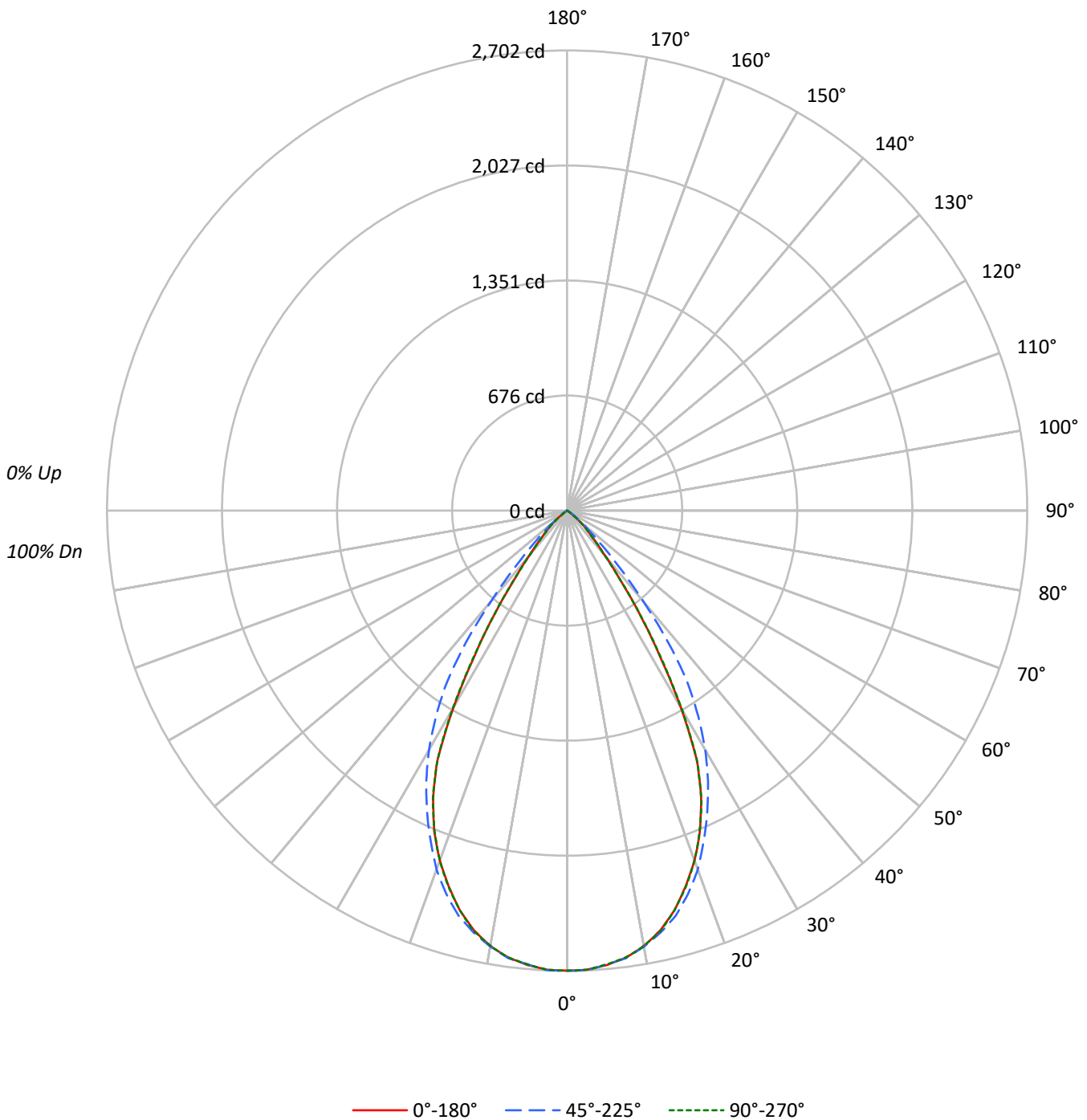
Lumens per Lamp: N/A  
Luminaire Lumens: 2618.4 lumens  
Efficiency: N/A  
Efficacy: 68.9 lumens/watt  
Spacing Criteria (0/90/45): 0.95 / 0.95 / 0.98  
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')  
CIE Type: Direct

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	113	111	108	106	111	109	106	104	104	103	101	101	99	98	97	96	95	93
2	108	103	99	95	106	101	97	94	98	95	92	95	92	90	92	90	88	87
3	102	96	91	87	100	94	90	86	92	88	85	89	86	83	87	84	82	80
4	97	89	84	79	95	88	83	79	86	81	78	84	80	77	82	79	76	75
5	92	83	77	73	90	82	77	73	81	76	72	79	75	71	77	74	71	69
6	87	78	72	68	86	77	72	67	76	71	67	74	70	66	73	69	66	65
7	83	73	67	63	81	73	67	63	71	66	62	70	65	62	69	65	62	60
8	78	69	63	59	77	68	62	58	67	62	58	66	61	58	65	61	58	56
9	75	65	59	55	74	64	59	55	63	58	54	62	58	54	62	57	54	53
10	71	61	55	51	70	61	55	51	60	55	51	59	54	51	58	54	51	49

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

	0°	45°	90°
0°	206805	206805	206805
5°	205789	205490	205490
10°	201756	202060	201756
15°	192633	195121	192633
20°	178176	182656	178176
25°	157207	164504	157545
30°	118011	143351	119054
35°	69353	115224	69717
40°	34532	69844	34143
45°	19128	31457	19128
50°	9348	13099	9348
55°	520	5765	520
60°	597	1209	597
65°	0	0	0
70°	0	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	253.1	9.7
10°-20°	683.0	26.1
20°-30°	865.4	33.1
30°-40°	593.5	22.7
40°-50°	191.3	7.3
50°-60°	31.2	1.2
60°-70°	0.8	0.0
70°-80°	0.0	0.0
80°-90°	0.0	0.0
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°	1801.5	68.8
0°-40°	2395.0	91.5
0°-60°	2617.5	100.0
0°-90°	2618.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2618.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2702	2702	2702	2702	2702	
5°	2678	2682	2674	2682	2674	253
15°	2431	2447	2462	2447	2431	679
25°	1861	1916	1948	1912	1865	835
35°	742	915	1233	923	746	475
45°	177	220	291	216	177	145
55°	4	24	43	24	4	18
65°	0	0	0	0	0	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2701.8	2701.8	2701.8	2701.8	2701.8
2.5°	2697.9	2697.9	2701.8	2697.9	2697.9
5°	2678.3	2682.2	2674.4	2682.2	2674.4
7.5°	2646.9	2642.9	2650.8	2642.9	2646.9
10°	2595.8	2591.9	2599.7	2591.9	2595.8
12.5°	2525.1	2529.1	2536.9	2533.0	2529.1
15°	2430.9	2446.6	2462.3	2446.6	2430.9
17.5°	2313.1	2332.7	2360.2	2332.7	2317.0
20°	2187.4	2207.0	2242.4	2211.0	2187.4
22.5°	2038.2	2077.4	2097.1	2073.5	2034.2
25°	1861.4	1916.4	1947.8	1912.5	1865.4
27.5°	1649.4	1735.8	1790.8	1735.8	1649.4
30°	1335.2	1504.1	1621.9	1504.1	1347.0
32.5°	1013.2	1209.5	1433.4	1201.7	1025.0
35°	742.2	915.0	1233.1	922.9	746.1
37.5°	506.6	659.8	973.9	651.9	510.5
40°	345.6	455.5	699.0	451.6	341.7
42.5°	243.5	310.2	463.4	310.2	239.6
45°	176.7	219.9	290.6	216.0	176.7
47.5°	129.6	161.0	180.6	157.1	125.7
50°	78.5	110.0	110.0	110.0	78.5
52.5°	35.3	62.8	66.8	62.8	35.3
55°	3.9	23.6	43.2	23.6	3.9
57.5°	3.9	3.9	23.6	3.9	3.9
60°	3.9	3.9	7.9	3.9	3.9
62.5°	0.0	0.0	3.9	0.0	0.0
65°	0.0	0.0	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)