

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: P241867

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

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P241867  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-52)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PRS440D010-S4M24-41SNDMW  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" NARROW DISTRIBUTION, DEEP TRIM MATTE WHITE  
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

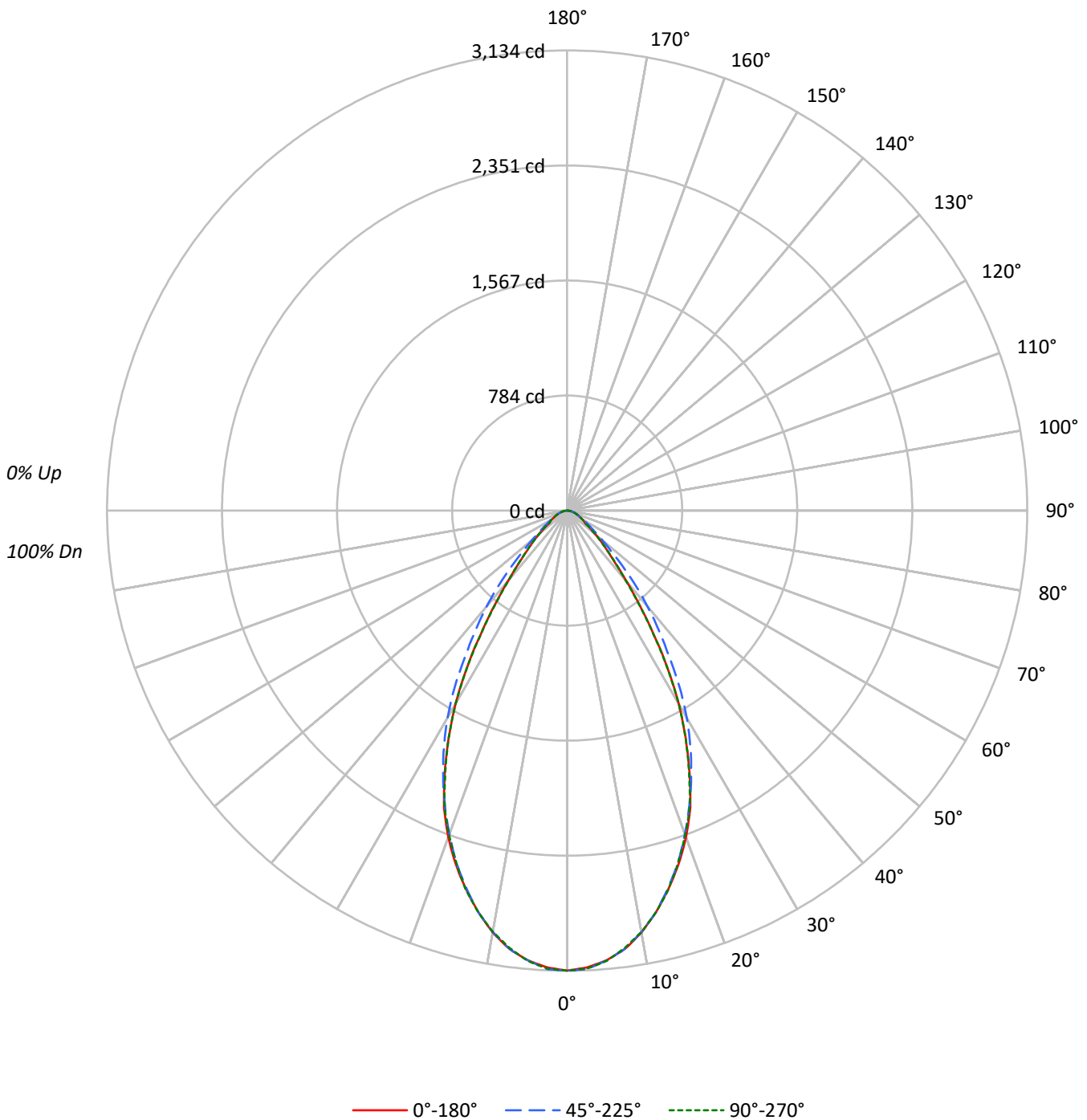
Lumens per Lamp: N/A  
Luminaire Lumens: 3313.2 lumens  
Efficiency: N/A  
Efficacy: 87.2 lumens/watt  
Spacing Criteria (0/90/45): 0.89 / 0.89 / 0.93  
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')  
CIE Type: Direct

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	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	104	110	107	104	102	103	101	99	99	97	96	96	94	93	91				
2	106	100	95	91	103	98	94	90	95	91	88	92	89	86	89	87	85	83				
3	99	92	86	82	97	91	85	81	88	83	80	85	82	78	83	80	77	75				
4	94	85	79	74	92	84	78	73	81	76	72	79	75	71	77	74	71	69				
5	88	79	72	67	86	78	71	67	76	70	66	74	69	66	72	68	65	63				
6	83	73	66	62	82	72	66	61	71	65	61	69	64	60	68	63	60	58				
7	79	68	61	57	77	67	61	57	66	60	56	65	60	56	64	59	56	54				
8	74	64	57	53	73	63	57	52	62	56	52	61	56	52	60	55	52	50				
9	70	60	53	49	69	59	53	49	58	53	49	57	52	48	56	52	48	47				
10	67	56	50	46	66	56	50	46	55	49	45	54	49	45	53	49	45	44				

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

	0°	45°	90°
0°	239856	239856	239856
5°	236247	236247	236547
10°	226768	226465	226465
15°	211287	210669	211604
20°	192879	190957	191600
25°	166489	168811	165821
30°	134318	144032	134318
35°	95769	112645	95040
40°	62390	85142	61601
45°	41654	57383	42087
50°	29925	36474	29460
55°	19911	25676	19911
60°	18034	19243	18034
65°	16355	16355	16355
70°	14950	14950	14950
75°	12776	12776	12776
80°	12122	12122	12122
85°	10363	10363	10363



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	288.6	8.7
10°-20°	744.1	22.5
20°-30°	904.6	27.3
30°-40°	700.2	21.1
40°-50°	360.6	10.9
50°-60°	163.3	4.9
60°-70°	90.5	2.7
70°-80°	47.6	1.4
80°-90°	13.8	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°	1937.3	58.5
0°-40°	2637.4	79.6
0°-60°	3161.3	95.4
0°-90°	3313.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3313.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3134	3134	3134	3134	3134	
5°	3075	3083	3075	3079	3079	289
15°	2666	2666	2658	2662	2670	746
25°	1971	1995	1999	1991	1963	897
35°	1025	1127	1206	1123	1017	644
45°	385	444	530	444	389	311
55°	149	173	192	173	149	148
65°	90	90	90	90	90	89
75°	43	43	43	43	43	48
85°	12	12	12	12	12	13
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3133.6	3133.6	3133.6	3133.6	3133.6
2.5°	3114.0	3117.9	3125.8	3121.8	3121.8
5°	3074.7	3082.6	3074.7	3078.6	3078.6
7.5°	3011.9	3011.9	3011.9	3004.0	3004.0
10°	2917.6	2913.7	2913.7	2913.7	2913.7
12.5°	2799.8	2803.8	2799.8	2803.8	2799.8
15°	2666.3	2666.3	2658.5	2662.4	2670.3
17.5°	2525.0	2521.0	2513.2	2509.3	2513.2
20°	2367.9	2356.1	2344.3	2352.2	2352.2
22.5°	2191.2	2187.3	2175.5	2179.4	2183.3
25°	1971.3	1994.8	1998.8	1990.9	1963.4
27.5°	1747.4	1774.9	1818.1	1774.9	1747.4
30°	1519.7	1562.9	1629.6	1562.9	1519.7
32.5°	1272.3	1350.8	1425.4	1354.8	1268.4
35°	1024.9	1127.0	1205.5	1123.1	1017.1
37.5°	805.0	903.2	1021.0	907.1	801.1
40°	624.4	714.7	852.1	714.7	616.5
42.5°	486.9	565.5	687.2	561.5	486.9
45°	384.8	443.7	530.1	443.7	388.8
47.5°	314.1	357.3	400.5	357.3	314.1
50°	251.3	282.7	306.3	282.7	247.4
52.5°	196.3	223.8	239.5	223.8	196.3
55°	149.2	172.8	192.4	172.8	149.2
57.5°	133.5	137.4	157.1	137.4	133.5
60°	117.8	117.8	125.7	117.8	117.8
62.5°	102.1	106.0	106.0	106.0	102.1
65°	90.3	90.3	90.3	90.3	90.3
67.5°	74.6	78.5	78.5	78.5	74.6
70°	66.8	66.8	66.8	66.8	66.8
72.5°	55.0	55.0	55.0	55.0	55.0
75°	43.2	43.2	43.2	43.2	43.2
77.5°	35.3	35.3	35.3	35.3	35.3
80°	27.5	27.5	27.5	27.5	27.5
82.5°	19.6	19.6	19.6	19.6	19.6
85°	11.8	11.8	11.8	11.8	11.8
87.5°	3.9	3.9	3.9	7.9	7.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)