

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: P241932

Luminaire Tested: **PRS440D010-S4M24-41SMDH-4000K**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P241932  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-56)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PRS440D010-S4M24-41SMDH-4000K  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM DISTRIBUTION, DEEP TRIM HAZE  
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3322.9 lumens  
Efficiency: N/A  
Efficacy: 87.4 lumens/watt  
Spacing Criteria (0/90/45): 0.94 / 0.95 / 0.98  
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')  
CIE Type: Direct

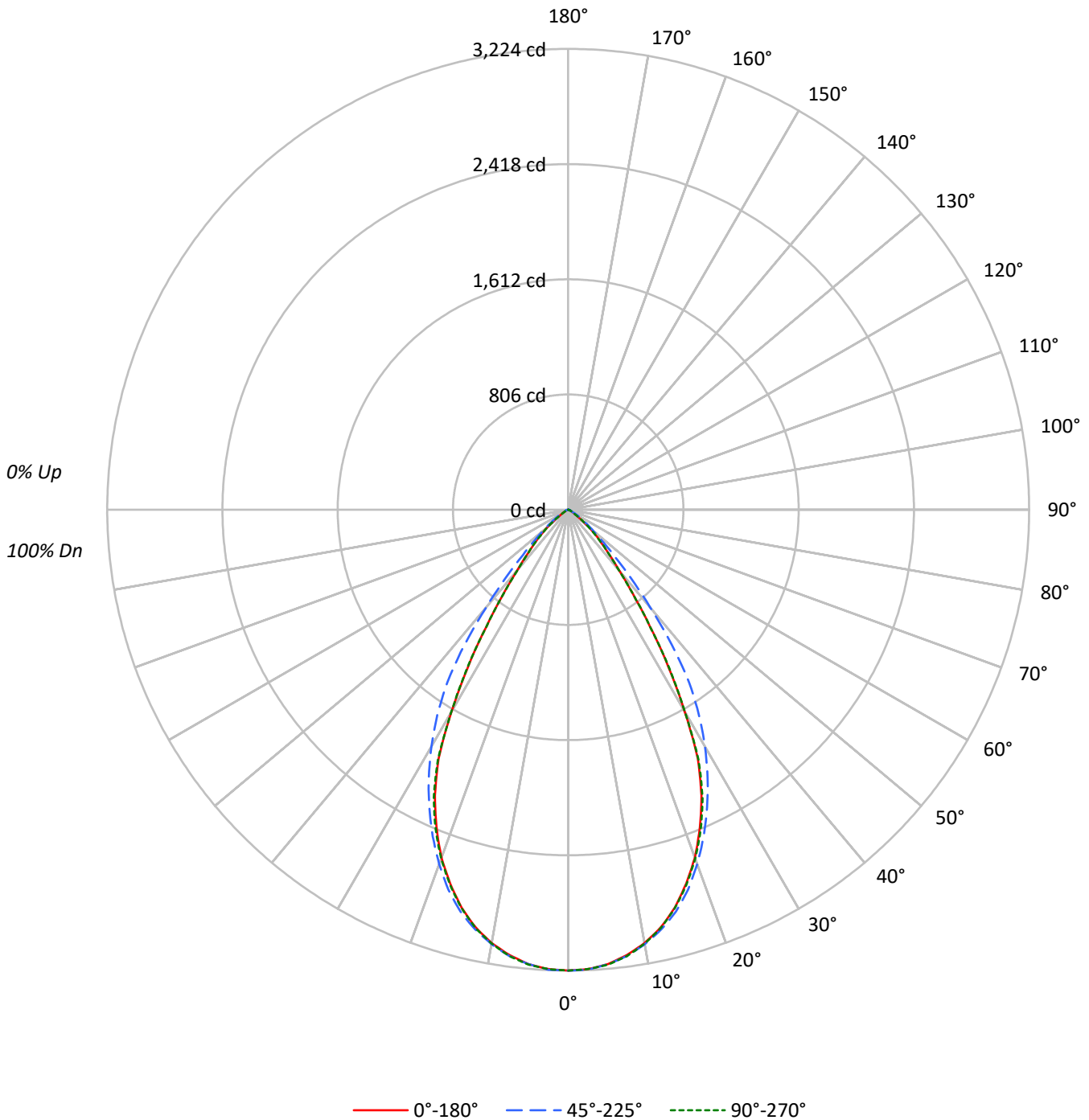
Input Watts (W): 38  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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	113	110	108	105	111	108	106	104	104	102	100	100	99	97	97	96	95					93				
2	107	102	98	94	105	100	96	93	97	94	91	94	91	89	91	89	87					85				
3	101	94	89	85	99	93	88	84	90	86	83	88	84	82	86	83	80					79				
4	96	88	82	77	94	87	81	77	84	80	76	82	78	75	80	77	74					73				
5	90	82	75	71	89	81	75	71	79	74	70	77	73	69	76	72	69					67				
6	86	76	70	65	84	75	69	65	74	68	65	72	68	64	71	67	64					62				
7	81	71	65	60	80	71	64	60	69	64	60	68	63	60	67	62	59					58				
8	77	67	60	56	76	66	60	56	65	60	56	64	59	55	63	59	55					54				
9	73	63	56	52	72	62	56	52	61	56	52	60	55	52	59	55	52					50				
10	69	59	53	49	68	59	53	49	58	52	49	57	52	49	56	52	48					47				

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

	0°	45°	90°
0°	246814	246814	246814
5°	245175	245175	245460
10°	239305	239888	239600
15°	228317	230678	228610
20°	210970	214929	211581
25°	186277	194157	187856
30°	144147	169213	144474
35°	92760	137753	92760
40°	55186	89129	54816
45°	35549	48474	35549
50°	21780	27115	21327
55°	8968	15440	8968
60°	5710	7991	5710
65°	3387	4727	3387
70°	2507	3335	2507
75°	2218	2218	1094
80°	1631	1631	1631
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	301.2	9.1
10°-20°	808.9	24.3
20°-30°	1025.4	30.9
30°-40°	749.1	22.5
40°-50°	311.3	9.4
50°-60°	94.0	2.8
60°-70°	24.0	0.7
70°-80°	7.6	0.2
80°-90°	1.3	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°	2135.6	64.3
0°-40°	2884.6	86.8
0°-60°	3290.0	99.0
0°-90°	3322.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3322.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3224	3224	3224	3224	3224	
5°	3191	3191	3191	3191	3195	301
15°	2881	2896	2911	2896	2885	804
25°	2206	2258	2299	2273	2224	993
35°	993	1164	1474	1164	993	636
45°	328	377	448	373	328	262
55°	67	93	116	93	67	75
65°	19	22	26	22	19	21
75°	8	8	8	8	4	7
85°	0	0	0	0	0	1
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3224.5	3224.5	3224.5	3224.5	3224.5
2.5°	3217.0	3217.0	3220.8	3217.0	3217.0
5°	3190.9	3190.9	3190.9	3190.9	3194.6
7.5°	3142.4	3146.1	3149.9	3146.1	3149.9
10°	3078.9	3082.7	3086.4	3086.4	3082.7
12.5°	2993.1	3000.6	3008.0	3000.6	2996.8
15°	2881.2	2896.1	2911.0	2896.1	2884.9
17.5°	2743.1	2758.0	2787.8	2761.7	2750.5
20°	2590.0	2612.4	2638.6	2616.2	2597.5
22.5°	2407.2	2448.2	2474.4	2448.2	2422.1
25°	2205.6	2257.9	2298.9	2272.8	2224.3
27.5°	1963.1	2052.6	2112.3	2063.8	1974.3
30°	1630.9	1787.7	1914.5	1802.6	1634.6
32.5°	1306.2	1470.4	1701.8	1477.9	1313.7
35°	992.7	1164.4	1474.2	1164.4	992.7
37.5°	742.7	895.7	1190.5	884.5	742.7
40°	552.3	668.0	892.0	660.6	548.6
42.5°	425.5	496.4	645.6	492.6	421.7
45°	328.4	376.9	447.8	373.2	328.4
47.5°	253.8	287.4	317.2	287.4	250.0
50°	182.9	216.5	227.7	216.5	179.1
52.5°	115.7	153.0	164.2	149.3	119.4
55°	67.2	93.3	115.7	93.3	67.2
57.5°	48.5	56.0	82.1	56.0	48.5
60°	37.3	41.1	52.2	41.1	37.3
62.5°	26.1	29.9	33.6	29.9	26.1
65°	18.7	22.4	26.1	22.4	18.7
67.5°	14.9	18.7	18.7	18.7	14.9
70°	11.2	11.2	14.9	11.2	11.2
72.5°	7.5	7.5	11.2	11.2	7.5
75°	7.5	7.5	7.5	7.5	3.7
77.5°	3.7	3.7	7.5	3.7	3.7
80°	3.7	3.7	3.7	3.7	3.7
82.5°	0.0	3.7	3.7	3.7	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)