

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: P241912

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

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P241912  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-55)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PRS440D010-S4M24-41SNDH  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" NARROW DISTRIBUTION, DEEP TRIM HAZE  
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

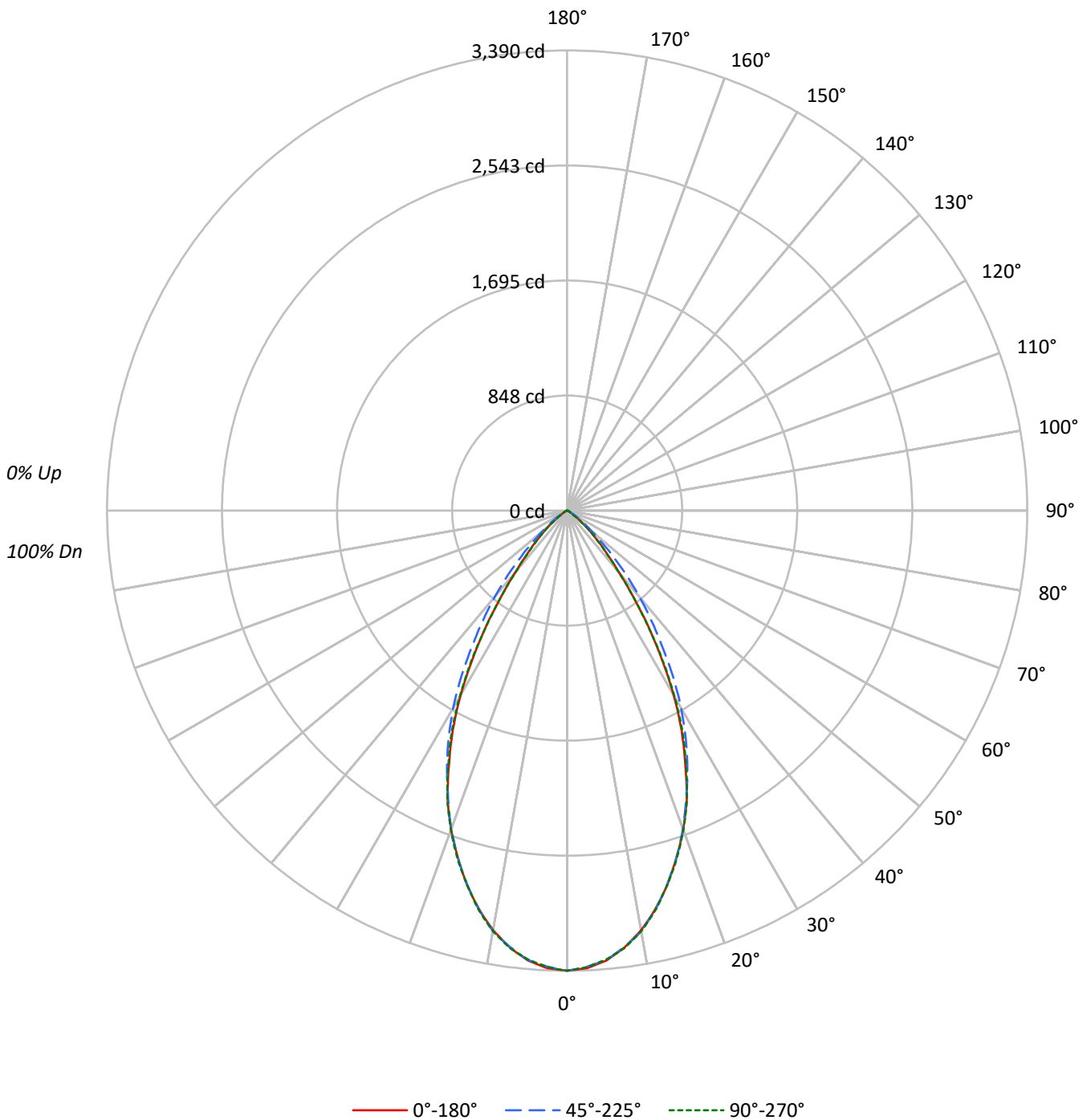
Lumens per Lamp: N/A  
Luminaire Lumens: 3195.4 lumens  
Efficiency: N/A  
Efficacy: 84.1 lumens/watt  
Spacing Criteria (0/90/45): 0.87 / 0.87 / 0.91  
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')  
CIE Type: Direct

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



TEST NUMBER: P241912  
CATALOG NUMBER: PRS440D010-S4M24-41SNDH

### Luminous Intensity Polar Plot





TEST NUMBER: P241912

CATALOG NUMBER: PRS440D010-S4M24-41SNDH

**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	100	100	100	
1	113	110	108	105	111	108	106	104	104	102	100	100	99	97	97	96	95	93	93	93	93	
2	107	102	98	94	105	100	96	93	97	94	91	94	91	89	91	89	87	86	86	86	86	
3	101	95	89	85	99	93	88	84	91	86	83	88	85	82	86	83	81	79	79	79	79	
4	96	88	82	78	94	87	81	77	85	80	76	83	79	75	81	77	74	73	73	73	73	
5	91	82	76	71	89	81	75	71	79	74	70	77	73	70	76	72	69	67	67	67	67	
6	86	76	70	66	84	76	70	65	74	69	65	73	68	64	71	67	64	63	63	63	63	
7	81	72	65	61	80	71	65	61	70	64	60	68	64	60	67	63	60	58	58	58	58	
8	77	67	61	57	76	67	61	56	65	60	56	64	59	56	63	59	56	54	54	54	54	
9	73	63	57	53	72	63	57	53	62	56	52	61	56	52	60	55	52	51	51	51	51	
10	70	59	53	49	69	59	53	49	58	53	49	57	52	49	57	52	49	48	48	48	48	

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

	0°	45°	90°
0°	259482	259482	259482
5°	255648	255348	255049
10°	243968	244583	244583
15°	226042	225733	226042
20°	203591	203265	203908
25°	173972	176953	174968
30°	138720	148424	139754
35°	97161	114028	96787
40°	59203	82724	58803
45°	35679	51819	34824
50°	20089	28032	19624
55°	7326	14666	7326
60°	4807	7210	4807
65°	2844	4256	2844
70°	1746	2641	1746
75°	1153	2307	1153
80°	1719	1719	1719
85°	0	0	0



TEST NUMBER: P241912

CATALOG NUMBER: PRS440D010-S4M24-41SNDH

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	311.3	9.7
10°-20°	796.0	24.9
20°-30°	949.2	29.7
30°-40°	707.2	22.1
40°-50°	316.8	9.9
50°-60°	86.2	2.7
60°-70°	20.9	0.7
70°-80°	6.8	0.2
80°-90°	1.1	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°	2056.5	64.4
0°-40°	2763.7	86.5
0°-60°	3166.6	99.1
0°-90°	3195.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3195.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3390	3390	3390	3390	3390	
5°	3327	3316	3323	3319	3319	311
15°	2852	2849	2849	2856	2852	796
25°	2060	2091	2095	2095	2072	939
35°	1040	1134	1220	1134	1036	650
45°	330	384	479	384	322	265
55°	55	86	110	86	55	66
65°	16	20	24	20	16	17
75°	4	8	8	8	4	6
85°	0	0	0	0	0	1
90°	0	0	0	0	0	



TEST NUMBER: P241912

CATALOG NUMBER: PRS440D010-S4M24-41SNDH

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3390.0	3390.0	3390.0	3390.0	3390.0
2.5°	3374.3	3366.5	3362.6	3362.6	3366.5
5°	3327.2	3315.5	3323.3	3319.4	3319.4
7.5°	3244.8	3244.8	3240.9	3248.8	3248.8
10°	3138.9	3142.8	3146.8	3142.8	3146.8
12.5°	3005.5	3001.6	3009.4	3013.4	3013.4
15°	2852.5	2848.6	2848.6	2856.4	2852.5
17.5°	2679.8	2683.8	2679.8	2683.8	2687.7
20°	2499.4	2499.4	2495.4	2499.4	2503.3
22.5°	2303.2	2303.2	2291.4	2299.2	2307.1
25°	2059.9	2091.3	2095.2	2095.2	2071.7
27.5°	1824.5	1848.0	1891.2	1855.9	1844.1
30°	1569.5	1616.5	1679.3	1624.4	1581.2
32.5°	1298.7	1385.0	1451.7	1377.2	1310.5
35°	1039.8	1133.9	1220.3	1133.9	1035.8
37.5°	796.5	898.5	1016.2	902.4	796.5
40°	592.5	690.6	827.9	686.6	588.5
42.5°	439.4	521.8	647.4	517.9	439.4
45°	329.6	384.5	478.7	384.5	321.7
47.5°	239.3	286.4	341.4	282.5	239.3
50°	168.7	204.0	235.4	204.0	164.8
52.5°	105.9	137.3	160.9	137.3	105.9
55°	54.9	86.3	109.9	86.3	54.9
57.5°	39.2	47.1	70.6	47.1	39.2
60°	31.4	35.3	47.1	35.3	31.4
62.5°	23.5	27.5	27.5	27.5	23.5
65°	15.7	19.6	23.5	19.6	15.7
67.5°	11.8	15.7	15.7	15.7	11.8
70°	7.8	11.8	11.8	11.8	7.8
72.5°	7.8	7.8	7.8	7.8	7.8
75°	3.9	7.8	7.8	7.8	3.9
77.5°	3.9	3.9	3.9	3.9	3.9
80°	3.9	3.9	3.9	3.9	3.9
82.5°	0.0	3.9	3.9	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)