

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: P241747

Luminaire Tested: **PRS440D010-S4M24-44SMDH**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P241747  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-44)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PRS440D010-S4M24-44SMDH  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM DISTRIBUTION, SHALLOW TRIM HAZE  
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3953.1 lumens  
Efficiency: N/A  
Efficacy: 104.0 lumens/watt  
Spacing Criteria (0/90/45): 1 / 1 / 1.06  
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')  
CIE Type: Direct

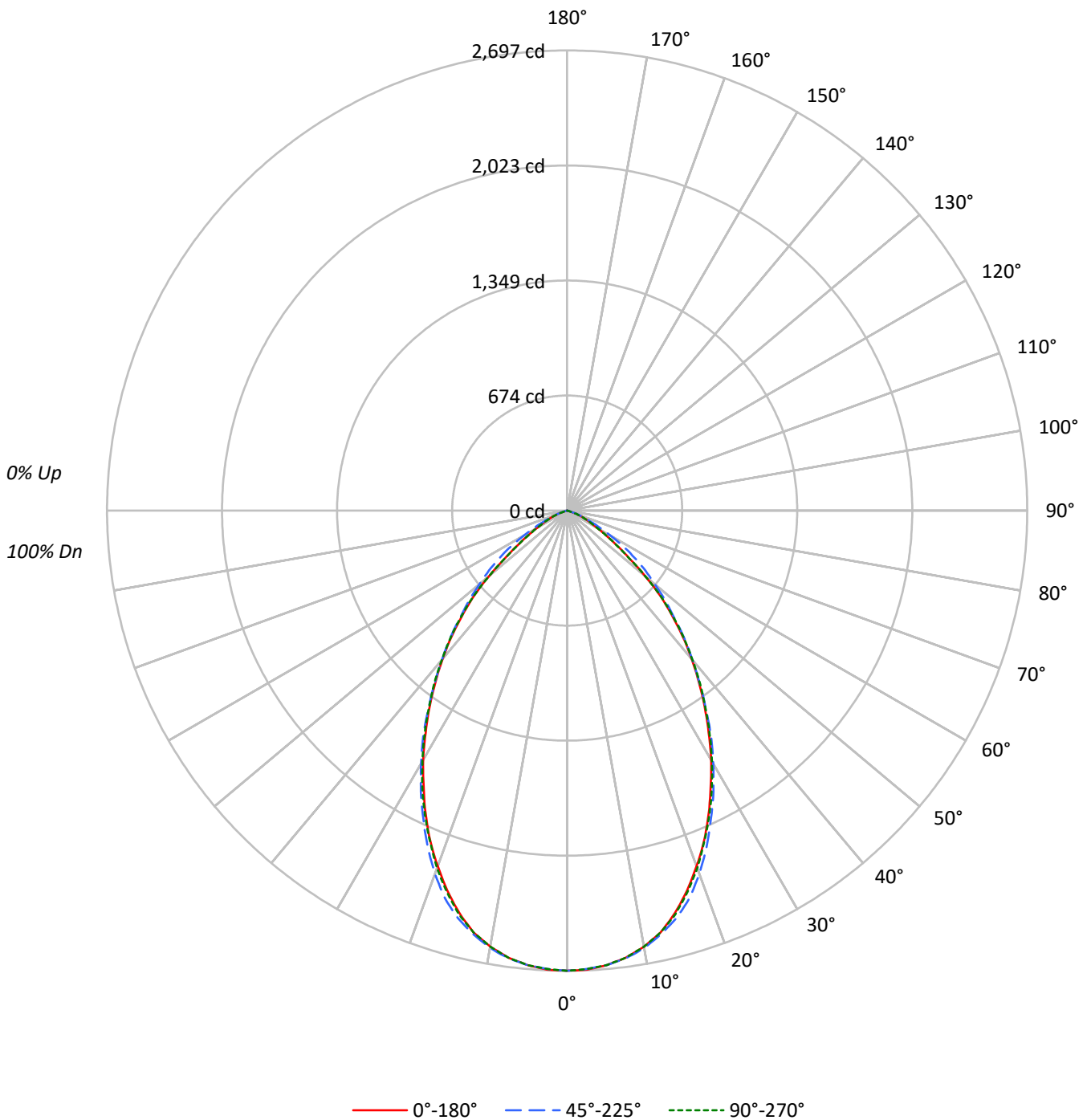
Input Watts (W): 38  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	112	109	106	103	110	107	104	101	102	100	98	99	97	95	95	94	92	91					91			
2	105	99	94	89	102	97	92	88	94	90	86	90	87	85	88	85	83	81					81			
3	98	90	83	79	96	88	83	78	85	81	77	83	79	75	81	77	74	72					72			
4	91	82	75	70	89	81	74	69	78	73	68	76	71	67	74	70	67	65					65			
5	85	75	68	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58					58			
6	80	69	61	56	78	68	61	56	66	60	55	65	59	55	63	58	55	53					53			
7	75	63	56	51	73	63	56	51	61	55	50	60	54	50	59	54	50	48					48			
8	70	59	51	47	69	58	51	46	57	51	46	56	50	46	55	50	46	44					44			
9	66	55	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	41					41			
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	37					37			

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

	0°	45°	90°
0°	206445	206445	206445
5°	205420	205420	205420
10°	201694	202308	201694
15°	193505	195993	194131
20°	180677	184514	181638
25°	165779	168440	166446
30°	149202	151288	149900
35°	131333	132426	132062
40°	113370	114149	114149
45°	93917	96049	95194
50°	71055	79939	71055
55°	47148	64443	46627
60°	31245	45069	31245
65°	22042	27023	21336
70°	12309	14055	12309
75°	1153	4643	1153
80°	0	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	252.8	6.4
10°-20°	688.0	17.4
20°-30°	910.1	23.0
30°-40°	886.9	22.4
40°-50°	683.4	17.3
50°-60°	373.5	9.4
60°-70°	138.2	3.5
70°-80°	20.1	0.5
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°	1850.9	46.8
0°-40°	2737.8	69.3
0°-60°	3794.7	96.0
0°-90°	3953.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3953.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2697	2697	2697	2697	2697	
5°	2674	2674	2674	2674	2674	253
15°	2442	2458	2473	2462	2450	683
25°	1963	1986	1994	1994	1971	899
35°	1406	1421	1417	1433	1413	877
45°	868	891	887	895	879	668
55°	353	396	483	400	349	329
65°	122	134	149	134	118	122
75°	4	8	16	8	4	14
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°	2697.1	2697.1	2697.1	2697.1	2697.1
2.5°	2693.2	2689.2	2689.2	2689.2	2689.2
5°	2673.5	2673.5	2673.5	2673.5	2673.5
7.5°	2642.1	2642.1	2646.1	2642.1	2642.1
10°	2595.0	2598.9	2602.9	2602.9	2595.0
12.5°	2532.2	2540.1	2544.0	2540.1	2532.2
15°	2441.9	2457.6	2473.3	2461.5	2449.8
17.5°	2335.9	2355.5	2383.0	2359.5	2343.8
20°	2218.1	2241.7	2265.2	2249.5	2229.9
22.5°	2096.4	2116.1	2135.7	2127.8	2100.4
25°	1962.9	1986.5	1994.4	1994.4	1970.8
27.5°	1821.6	1849.1	1856.9	1853.0	1837.3
30°	1688.1	1707.8	1711.7	1715.6	1696.0
32.5°	1542.9	1562.5	1570.4	1574.3	1554.7
35°	1405.5	1421.2	1417.2	1433.0	1413.3
37.5°	1268.1	1283.8	1275.9	1291.6	1279.8
40°	1134.6	1142.4	1142.4	1154.2	1142.4
42.5°	1005.0	1012.9	1016.8	1020.7	1012.9
45°	867.6	891.2	887.3	895.1	879.4
47.5°	742.0	761.6	777.3	769.5	745.9
50°	596.7	643.8	671.3	651.7	596.7
52.5°	459.3	514.3	577.1	518.2	459.3
55°	353.3	396.5	482.9	400.4	349.4
57.5°	267.0	302.3	388.7	302.3	267.0
60°	204.1	231.6	294.4	231.6	204.1
62.5°	157.0	176.7	212.0	176.7	157.0
65°	121.7	133.5	149.2	133.5	117.8
67.5°	86.4	98.1	98.1	98.1	86.4
70°	55.0	66.7	62.8	66.7	55.0
72.5°	23.6	35.3	39.3	35.3	23.6
75°	3.9	7.9	15.7	7.9	3.9
77.5°	0.0	3.9	3.9	3.9	3.9
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)