

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: P241842

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

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P241842  
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-4000K  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM DISTRIBUTION, DEEP TRIM MATTE BLACK  
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2490.3 lumens  
Efficiency: N/A  
Efficacy: 65.5 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

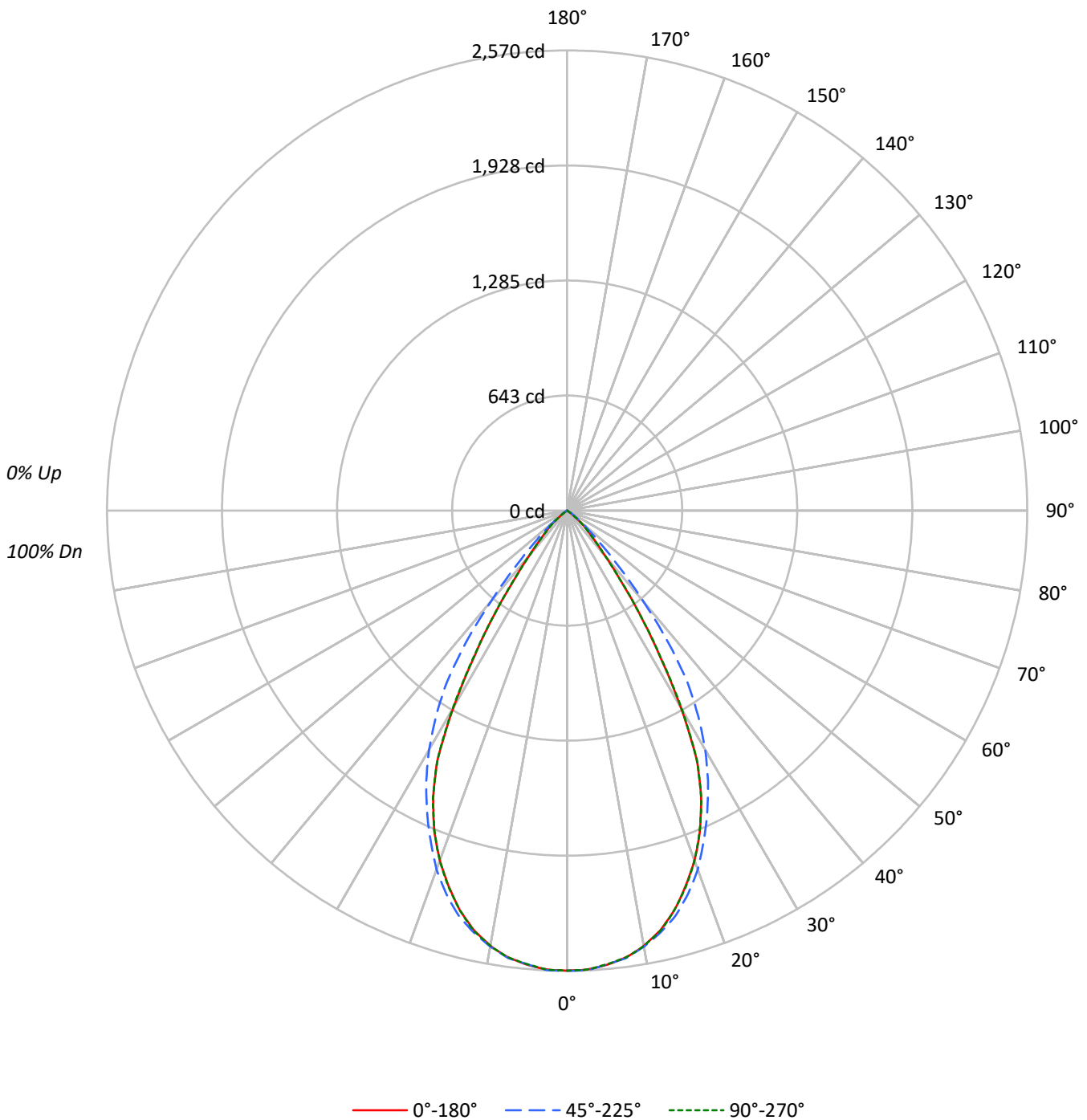
Input Watts (W): 38  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

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

	0°	45°	90°
0°	196694	196694	196694
5°	195724	195432	195432
10°	191886	192181	191886
15°	183211	185573	183211
20°	169461	173721	169461
25°	149521	156464	149834
30°	112240	136342	113230
35°	65961	109589	66307
40°	32844	66427	32464
45°	18197	29920	18197
50°	8895	12456	8895
55°	494	5485	494
60°	566	1148	566
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°	240.7	9.7
10°-20°	649.6	26.1
20°-30°	823.1	33.1
30°-40°	564.5	22.7
40°-50°	182.0	7.3
50°-60°	29.7	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°	1713.4	68.8
0°-40°	2277.9	91.5
0°-60°	2489.5	100.0
0°-90°	2490.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2490.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2570	2570	2570	2570	2570	
5°	2547	2551	2544	2551	2544	241
15°	2312	2327	2342	2327	2312	645
25°	1770	1823	1853	1819	1774	794
35°	706	870	1173	878	710	452
45°	168	209	276	205	168	138
55°	4	22	41	22	4	17
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°	2569.7	2569.7	2569.7	2569.7	2569.7
2.5°	2565.9	2565.9	2569.7	2565.9	2565.9
5°	2547.3	2551.0	2543.5	2551.0	2543.5
7.5°	2517.4	2513.6	2521.1	2513.6	2517.4
10°	2468.8	2465.1	2472.6	2465.1	2468.8
12.5°	2401.6	2405.3	2412.8	2409.1	2405.3
15°	2312.0	2326.9	2341.8	2326.9	2312.0
17.5°	2199.9	2218.6	2244.7	2218.6	2203.6
20°	2080.4	2099.1	2132.7	2102.8	2080.4
22.5°	1938.5	1975.8	1994.5	1972.1	1934.7
25°	1770.4	1822.7	1852.6	1818.9	1774.1
27.5°	1568.7	1650.9	1703.2	1650.9	1568.7
30°	1269.9	1430.5	1542.6	1430.5	1281.1
32.5°	963.6	1150.4	1363.3	1142.9	974.8
35°	705.9	870.3	1172.8	877.7	709.6
37.5°	481.8	627.5	926.3	620.0	485.5
40°	328.7	433.3	664.8	429.5	324.9
42.5°	231.6	295.1	440.7	295.1	227.8
45°	168.1	209.2	276.4	205.4	168.1
47.5°	123.3	153.1	171.8	149.4	119.5
50°	74.7	104.6	104.6	104.6	74.7
52.5°	33.6	59.8	63.5	59.8	33.6
55°	3.7	22.4	41.1	22.4	3.7
57.5°	3.7	3.7	22.4	3.7	3.7
60°	3.7	3.7	7.5	3.7	3.7
62.5°	0.0	0.0	3.7	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)