

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: P241927

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

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P241927  
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  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM 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: 3493.8 lumens  
Efficiency: N/A  
Efficacy: 91.9 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

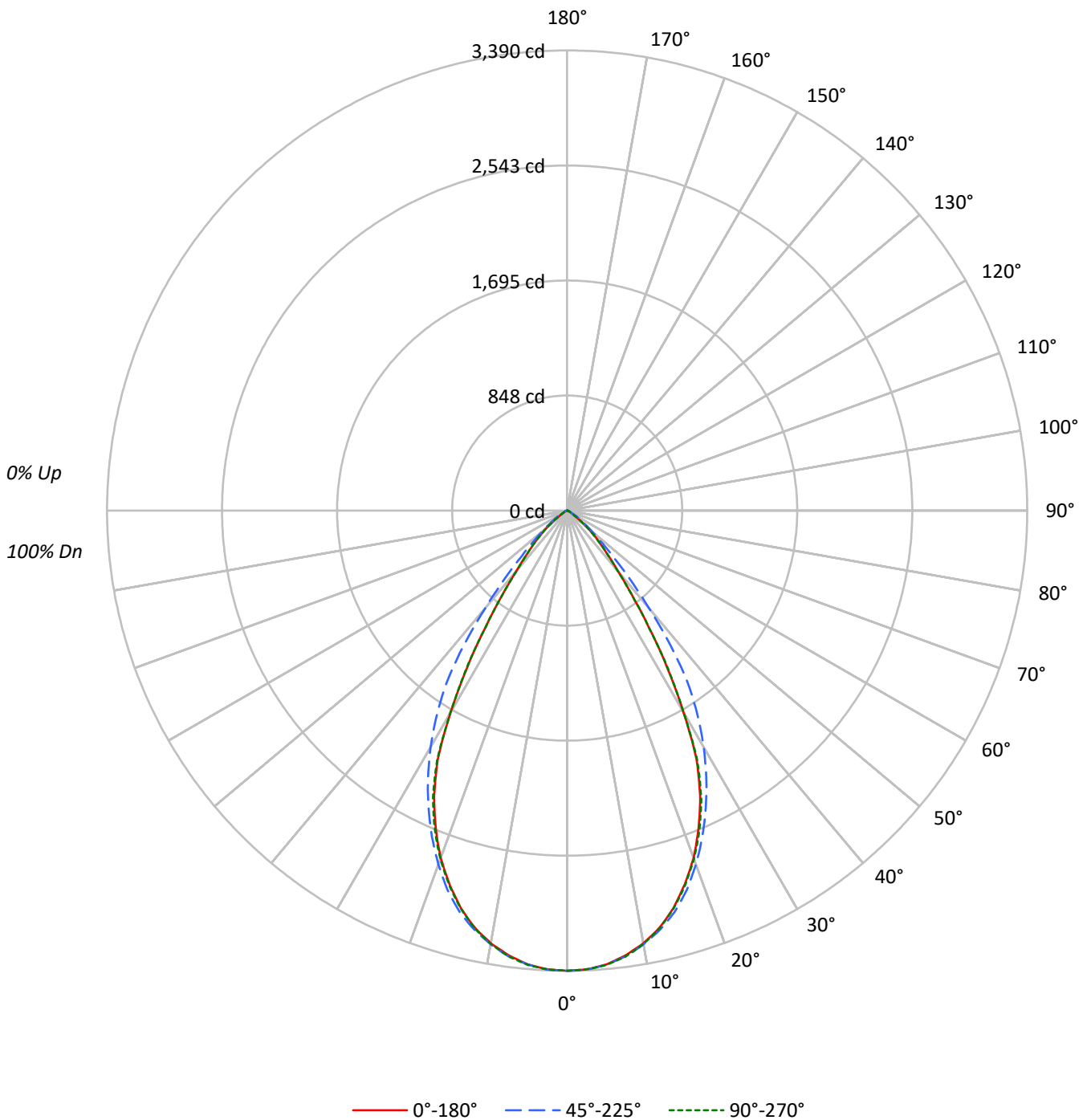
Input Watts (W): 38  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

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

	0°	45°	90°
0°	259513	259513	259513
5°	257784	257784	258091
10°	251617	252231	251920
15°	240052	242541	240369
20°	221829	225983	222464
25°	195863	204148	197518
30°	151562	177918	151907
35°	97535	144835	97535
40°	58034	93705	57634
45°	37378	50974	37378
50°	22899	28508	22435
55°	9422	16227	9422
60°	6001	8404	6001
65°	3550	4981	3550
70°	2641	3514	2641
75°	2307	2307	1153
80°	1719	1719	1719
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	316.7	9.1
10°-20°	850.5	24.3
20°-30°	1078.1	30.9
30°-40°	787.6	22.5
40°-50°	327.3	9.4
50°-60°	98.9	2.8
60°-70°	25.2	0.7
70°-80°	8.0	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°	2245.4	64.3
0°-40°	3033.0	86.8
0°-60°	3459.2	99.0
0°-90°	3493.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3493.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3390	3390	3390	3390	3390	
5°	3355	3355	3355	3355	3359	316
15°	3029	3045	3061	3045	3033	846
25°	2319	2374	2417	2390	2339	1044
35°	1044	1224	1550	1224	1044	668
45°	345	396	471	392	345	276
55°	71	98	122	98	71	79
65°	20	24	28	24	20	22
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°	3390.4	3390.4	3390.4	3390.4	3390.4
2.5°	3382.5	3382.5	3386.4	3382.5	3382.5
5°	3355.0	3355.0	3355.0	3355.0	3359.0
7.5°	3304.0	3308.0	3311.9	3308.0	3311.9
10°	3237.3	3241.2	3245.2	3245.2	3241.2
12.5°	3147.1	3154.9	3162.8	3154.9	3151.0
15°	3029.3	3045.0	3060.7	3045.0	3033.3
17.5°	2884.2	2899.9	2931.2	2903.8	2892.0
20°	2723.3	2746.8	2774.3	2750.7	2731.1
22.5°	2531.0	2574.2	2601.6	2574.2	2546.7
25°	2319.1	2374.0	2417.2	2389.7	2338.7
27.5°	2064.0	2158.2	2221.0	2170.0	2075.8
30°	1714.8	1879.6	2013.0	1895.3	1718.7
32.5°	1373.4	1546.1	1789.4	1553.9	1381.3
35°	1043.8	1224.3	1550.0	1224.3	1043.8
37.5°	780.9	941.8	1251.8	930.0	780.9
40°	580.8	702.4	937.8	694.6	576.8
42.5°	447.3	521.9	678.9	518.0	443.4
45°	345.3	396.3	470.9	392.4	345.3
47.5°	266.8	302.1	333.5	302.1	262.9
50°	192.3	227.6	239.4	227.6	188.4
52.5°	121.6	160.9	172.7	157.0	125.6
55°	70.6	98.1	121.6	98.1	70.6
57.5°	51.0	58.9	86.3	58.9	51.0
60°	39.2	43.2	54.9	43.2	39.2
62.5°	27.5	31.4	35.3	31.4	27.5
65°	19.6	23.5	27.5	23.5	19.6
67.5°	15.7	19.6	19.6	19.6	15.7
70°	11.8	11.8	15.7	11.8	11.8
72.5°	7.8	7.8	11.8	11.8	7.8
75°	7.8	7.8	7.8	7.8	3.9
77.5°	3.9	3.9	7.8	3.9	3.9
80°	3.9	3.9	3.9	3.9	3.9
82.5°	0.0	3.9	3.9	3.9	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)