

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: P241907

Luminaire Tested: **PRS440D010-S4M24-41SNDH-3000K**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P241907  
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-3000K  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" NARROW DISTRIBUTION, DEEP TRIM HAZE  
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2877.1 lumens  
Efficiency: N/A  
Efficacy: 75.7 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

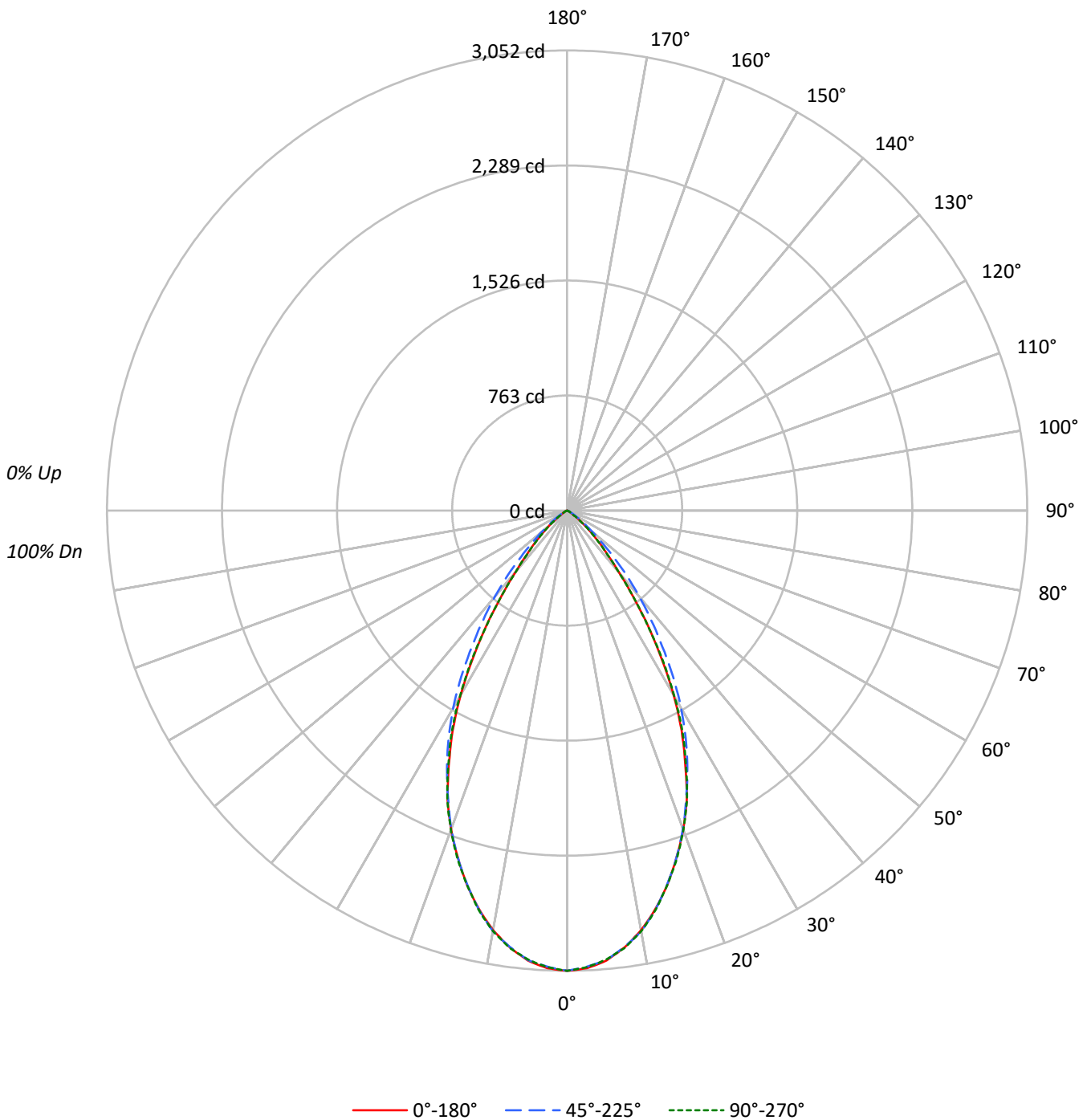
Input Watts (W): 38  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	86					86			
3	101	95	89	85	99	93	88	84	91	86	83	88	85	82	86	83	81	79					79			
4	96	88	82	78	94	87	81	77	85	80	76	83	79	75	81	77	74	73					73			
5	91	82	76	71	89	81	75	71	79	74	70	77	73	70	76	72	69	67					67			
6	86	76	70	66	84	76	70	65	74	69	65	73	68	64	71	67	64	63					63			
7	81	72	65	61	80	71	65	61	70	64	60	68	63	60	67	63	60	58					58			
8	77	67	61	57	76	67	61	56	65	60	56	64	59	56	63	59	56	54					54			
9	73	63	57	53	72	63	57	53	62	56	52	61	56	52	60	55	52	51					51			
10	70	59	53	49	69	59	53	49	58	53	49	57	52	49	57	52	49	48					48			

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

	0°	45°	90°
0°	233641	233641	233641
5°	230185	229916	229647
10°	219672	220216	220216
15°	203529	203244	203529
20°	183308	183023	183593
25°	156641	159327	157536
30°	124896	133638	125833
35°	87481	102665	87154
40°	53307	74481	52948
45°	32128	46655	31360
50°	18088	25245	17672
55°	6606	13198	6606
60°	4332	6491	4332
65°	2554	3840	2554
70°	1589	2372	1589
75°	1035	2100	1035
80°	1543	1543	1543
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	280.3	9.7
10°-20°	716.7	24.9
20°-30°	854.6	29.7
30°-40°	636.8	22.1
40°-50°	285.2	9.9
50°-60°	77.6	2.7
60°-70°	18.8	0.7
70°-80°	6.2	0.2
80°-90°	0.9	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°	1851.6	64.4
0°-40°	2488.4	86.5
0°-60°	2851.2	99.1
0°-90°	2877.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2877.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3052	3052	3052	3052	3052	
5°	2996	2985	2992	2989	2989	280
15°	2568	2565	2565	2572	2568	716
25°	1855	1883	1886	1886	1865	845
35°	936	1021	1099	1021	933	585
45°	297	346	431	346	290	238
55°	50	78	99	78	50	60
65°	14	18	21	18	14	16
75°	4	7	7	7	4	5
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°	3052.4	3052.4	3052.4	3052.4	3052.4
2.5°	3038.2	3031.2	3027.6	3027.6	3031.2
5°	2995.8	2985.2	2992.3	2988.8	2988.8
7.5°	2921.6	2921.6	2918.1	2925.2	2925.2
10°	2826.3	2829.8	2833.3	2829.8	2833.3
12.5°	2706.1	2702.6	2709.7	2713.2	2713.2
15°	2568.4	2564.8	2564.8	2571.9	2568.4
17.5°	2412.9	2416.5	2412.9	2416.5	2420.0
20°	2250.4	2250.4	2246.9	2250.4	2253.9
22.5°	2073.8	2073.8	2063.2	2070.2	2077.3
25°	1854.7	1883.0	1886.5	1886.5	1865.3
27.5°	1642.8	1664.0	1702.8	1671.0	1660.4
30°	1413.1	1455.5	1512.0	1462.6	1423.7
32.5°	1169.4	1247.1	1307.1	1240.0	1180.0
35°	936.2	1021.0	1098.7	1021.0	932.7
37.5°	717.2	809.0	915.0	812.6	717.2
40°	533.5	621.8	745.4	618.2	529.9
42.5°	395.7	469.9	582.9	466.3	395.7
45°	296.8	346.2	431.0	346.2	289.7
47.5°	215.5	257.9	307.4	254.4	215.5
50°	151.9	183.7	212.0	183.7	148.4
52.5°	95.4	123.6	144.8	123.6	95.4
55°	49.5	77.7	98.9	77.7	49.5
57.5°	35.3	42.4	63.6	42.4	35.3
60°	28.3	31.8	42.4	31.8	28.3
62.5°	21.2	24.7	24.7	24.7	21.2
65°	14.1	17.7	21.2	17.7	14.1
67.5°	10.6	14.1	14.1	14.1	10.6
70°	7.1	10.6	10.6	10.6	7.1
72.5°	7.1	7.1	7.1	7.1	7.1
75°	3.5	7.1	7.1	7.1	3.5
77.5°	3.5	3.5	3.5	3.5	3.5
80°	3.5	3.5	3.5	3.5	3.5
82.5°	0.0	3.5	3.5	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)