

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: P252962

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

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P252962  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1805-776-2)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PRS440D010-S4M24-41SWDMW-3000K  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, DEEP TRIM MATTE WHITE  
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3020.5 lumens  
Efficiency: N/A  
Efficacy: 79.5 lumens/watt  
Spacing Criteria (0/90/45): 1.11 / 1.1 / 1.15  
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')  
CIE Type: Direct

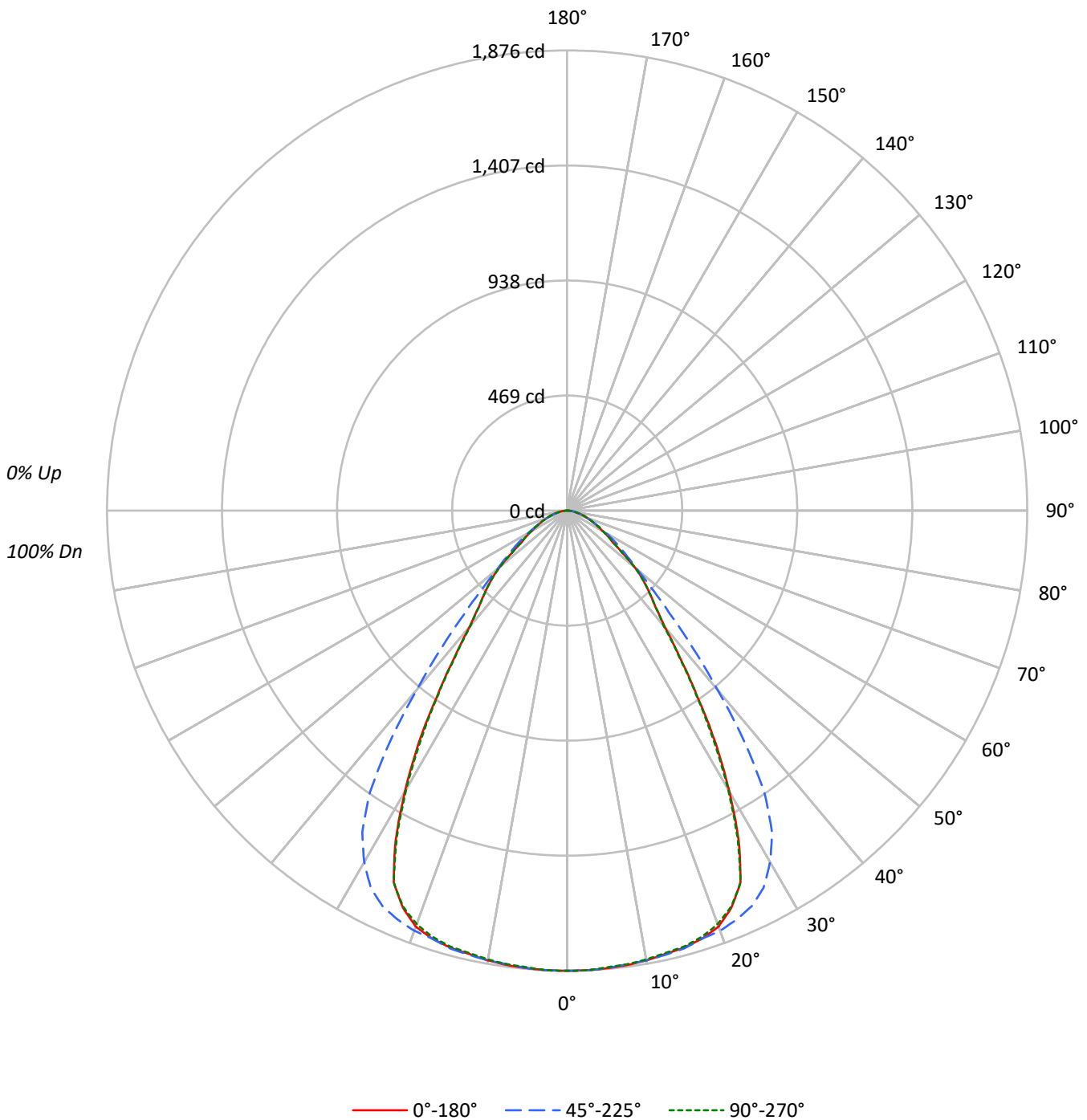
Input Watts (W): 38  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	108	105	102	109	106	103	100	102	99	97	98	96	94	95	93	92					90				
2	104	98	93	88	102	96	91	87	93	89	86	90	86	84	87	84	82					80				
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	76	73					72				
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66					64				
5	85	75	67	62	83	74	67	62	72	66	61	70	65	60	68	64	60					58				
6	80	69	61	56	78	68	61	56	66	60	55	65	59	55	63	58	55					53				
7	75	63	56	51	73	63	56	51	61	55	51	60	54	50	59	54	50					48				
8	70	59	52	47	69	58	51	47	57	51	46	56	50	46	55	50	46					44				
9	66	55	48	43	65	54	47	43	53	47	43	52	47	42	51	46	42					41				
10	63	51	44	40	61	51	44	40	50	44	39	49	43	39	48	43	39					38				

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

	0°	45°	90°
0°	143603	143603	143603
5°	143883	143883	143606
10°	144715	144715	144435
15°	146125	146410	145840
20°	147003	148453	146132
25°	141245	150307	141245
30°	116862	146241	115917
35°	86490	130903	85817
40°	61771	95344	61061
45°	51451	63445	51451
50°	42976	44262	42976
55°	30520	35284	31000
60°	25719	27908	25719
65°	22006	22658	22006
70°	19202	19202	19202
75°	16916	16916	16916
80°	14194	14194	14194
85°	12559	12559	12559



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	178.3	5.9
10°-20°	521.0	17.2
20°-30°	778.6	25.8
30°-40°	693.0	22.9
40°-50°	412.4	13.7
50°-60°	233.6	7.7
60°-70°	125.2	4.1
70°-80°	61.4	2.0
80°-90°	17.0	0.6
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°	1477.8	48.9
0°-40°	2170.9	71.9
0°-60°	2816.9	93.3
0°-90°	3020.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3020.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1876	1876	1876	1876	1876	
5°	1873	1873	1873	1873	1869	178
15°	1844	1844	1848	1840	1840	521
25°	1672	1719	1780	1715	1672	746
35°	926	1083	1401	1079	918	585
45°	475	511	586	508	475	369
55°	229	254	264	254	232	218
65°	122	125	125	125	122	122
75°	57	57	57	57	57	62
85°	14	14	14	14	14	17
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1876.1	1876.1	1876.1	1876.1	1876.1
2.5°	1876.1	1876.1	1876.1	1876.1	1876.1
5°	1872.6	1872.6	1872.6	1872.6	1869.0
7.5°	1869.0	1865.4	1865.4	1865.4	1865.4
10°	1861.9	1861.9	1861.9	1858.3	1858.3
12.5°	1851.1	1851.1	1854.7	1851.1	1847.6
15°	1844.0	1844.0	1847.6	1840.4	1840.4
17.5°	1829.7	1833.3	1829.7	1829.7	1822.5
20°	1804.7	1815.4	1822.5	1811.8	1794.0
22.5°	1751.1	1779.7	1804.7	1776.1	1747.5
25°	1672.4	1718.9	1779.7	1715.3	1672.4
27.5°	1515.2	1633.1	1733.2	1622.4	1504.5
30°	1322.2	1465.2	1654.6	1454.5	1311.5
32.5°	1129.3	1272.2	1554.5	1265.1	1111.4
35°	925.6	1082.8	1400.9	1079.2	918.4
37.5°	754.0	897.0	1186.4	889.8	746.9
40°	618.2	729.0	954.2	725.4	611.1
42.5°	532.5	593.2	754.0	589.6	532.5
45°	475.3	511.0	586.1	507.5	475.3
47.5°	421.7	450.3	461.0	446.7	421.7
50°	360.9	393.1	371.7	393.1	360.9
52.5°	285.9	325.2	310.9	328.8	282.3
55°	228.7	253.7	264.4	253.7	232.3
57.5°	200.1	207.3	221.6	207.3	200.1
60°	168.0	175.1	182.3	175.1	168.0
62.5°	142.9	150.1	150.1	150.1	146.5
65°	121.5	125.1	125.1	125.1	121.5
67.5°	103.6	103.6	103.6	103.6	103.6
70°	85.8	85.8	85.8	85.8	85.8
72.5°	71.5	71.5	71.5	71.5	71.5
75°	57.2	57.2	57.2	57.2	57.2
77.5°	46.5	46.5	42.9	46.5	42.9
80°	32.2	32.2	32.2	32.2	32.2
82.5°	25.0	25.0	25.0	25.0	25.0
85°	14.3	14.3	14.3	14.3	14.3
87.5°	7.1	7.1	7.1	7.1	7.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)