

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: P252957

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

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P252957  
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-S4M24-41SWDH-4000K  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, DEEP TRIM HAZE  
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3099.9 lumens  
Efficiency: N/A  
Efficacy: 81.6 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

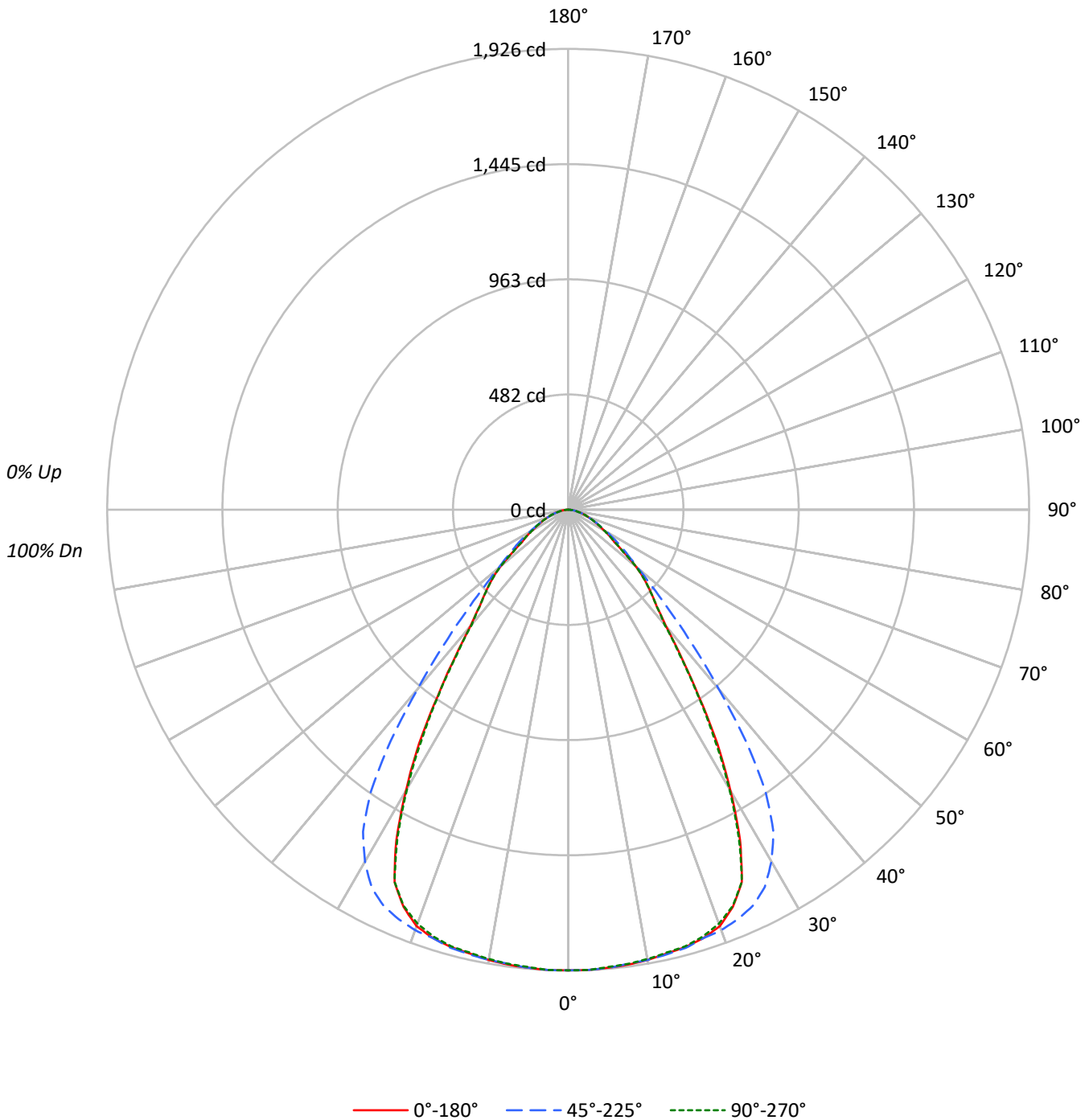
Input Watts (W): 38  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

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

	0°	45°	90°
0°	147384	147384	147384
5°	147663	147663	147379
10°	148515	148515	148228
15°	149961	150254	149675
20°	150864	152355	149968
25°	144961	154251	144961
30°	119938	150086	118966
35°	88761	134342	88079
40°	63399	97842	62660
45°	52804	65112	52804
50°	44107	45417	44107
55°	31321	36218	31814
60°	26392	28627	26392
65°	22585	23255	22585
70°	19694	19694	19694
75°	17360	17360	17360
80°	14546	14546	14546
85°	12910	12910	12910



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	183.0	5.9
10°-20°	534.7	17.2
20°-30°	799.0	25.8
30°-40°	711.2	22.9
40°-50°	423.2	13.7
50°-60°	239.7	7.7
60°-70°	128.5	4.1
70°-80°	63.0	2.0
80°-90°	17.5	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°	1516.7	48.9
0°-40°	2227.9	71.9
0°-60°	2890.9	93.3
0°-90°	3099.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3099.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1926	1926	1926	1926	1926	
5°	1922	1922	1922	1922	1918	183
15°	1892	1892	1896	1889	1889	534
25°	1716	1764	1826	1760	1716	766
35°	950	1111	1438	1108	943	600
45°	488	524	602	521	488	379
55°	235	260	271	260	238	224
65°	125	128	128	128	125	126
75°	59	59	59	59	59	63
85°	15	15	15	15	15	17
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1925.5	1925.5	1925.5	1925.5	1925.5
2.5°	1925.5	1925.5	1925.5	1925.5	1925.5
5°	1921.8	1921.8	1921.8	1921.8	1918.1
7.5°	1918.1	1914.5	1914.5	1914.5	1914.5
10°	1910.8	1910.8	1910.8	1907.1	1907.1
12.5°	1899.8	1899.8	1903.4	1899.8	1896.1
15°	1892.4	1892.4	1896.1	1888.8	1888.8
17.5°	1877.8	1881.4	1877.8	1877.8	1870.4
20°	1852.1	1863.1	1870.4	1859.4	1841.1
22.5°	1797.1	1826.4	1852.1	1822.8	1793.4
25°	1716.4	1764.1	1826.4	1760.4	1716.4
27.5°	1555.0	1676.1	1778.8	1665.1	1544.0
30°	1357.0	1503.7	1698.1	1492.7	1346.0
32.5°	1158.9	1305.6	1595.4	1298.3	1140.6
35°	949.9	1111.3	1437.7	1107.6	942.6
37.5°	773.8	920.6	1217.6	913.2	766.5
40°	634.5	748.2	979.2	744.5	627.1
42.5°	546.5	608.8	773.8	605.1	546.5
45°	487.8	524.5	601.5	520.8	487.8
47.5°	432.8	462.1	473.1	458.4	432.8
50°	370.4	403.4	381.4	403.4	370.4
52.5°	293.4	333.7	319.1	337.4	289.7
55°	234.7	260.4	271.4	260.4	238.4
57.5°	205.4	212.7	227.4	212.7	205.4
60°	172.4	179.7	187.0	179.7	172.4
62.5°	146.7	154.0	154.0	154.0	150.4
65°	124.7	128.4	128.4	128.4	124.7
67.5°	106.4	106.4	106.4	106.4	106.4
70°	88.0	88.0	88.0	88.0	88.0
72.5°	73.4	73.4	73.4	73.4	73.4
75°	58.7	58.7	58.7	58.7	58.7
77.5°	47.7	47.7	44.0	47.7	44.0
80°	33.0	33.0	33.0	33.0	33.0
82.5°	25.7	25.7	25.7	25.7	25.7
85°	14.7	14.7	14.7	14.7	14.7
87.5°	7.3	7.3	7.3	7.3	7.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)