

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: P252917

Luminaire Tested: **PRS440D010-S4M24-44SWDMB-3000K**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P252917  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1804-748-2)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PRS440D010-S4M24-44SWDMB-3000K  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, SHALLOW TRIM MATTE BLACK  
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3078.9 lumens  
Efficiency: N/A  
Efficacy: 81.0 lumens/watt  
Spacing Criteria (0/90/45): 1.29 / 1.29 / 1.41  
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')  
CIE Type: Direct

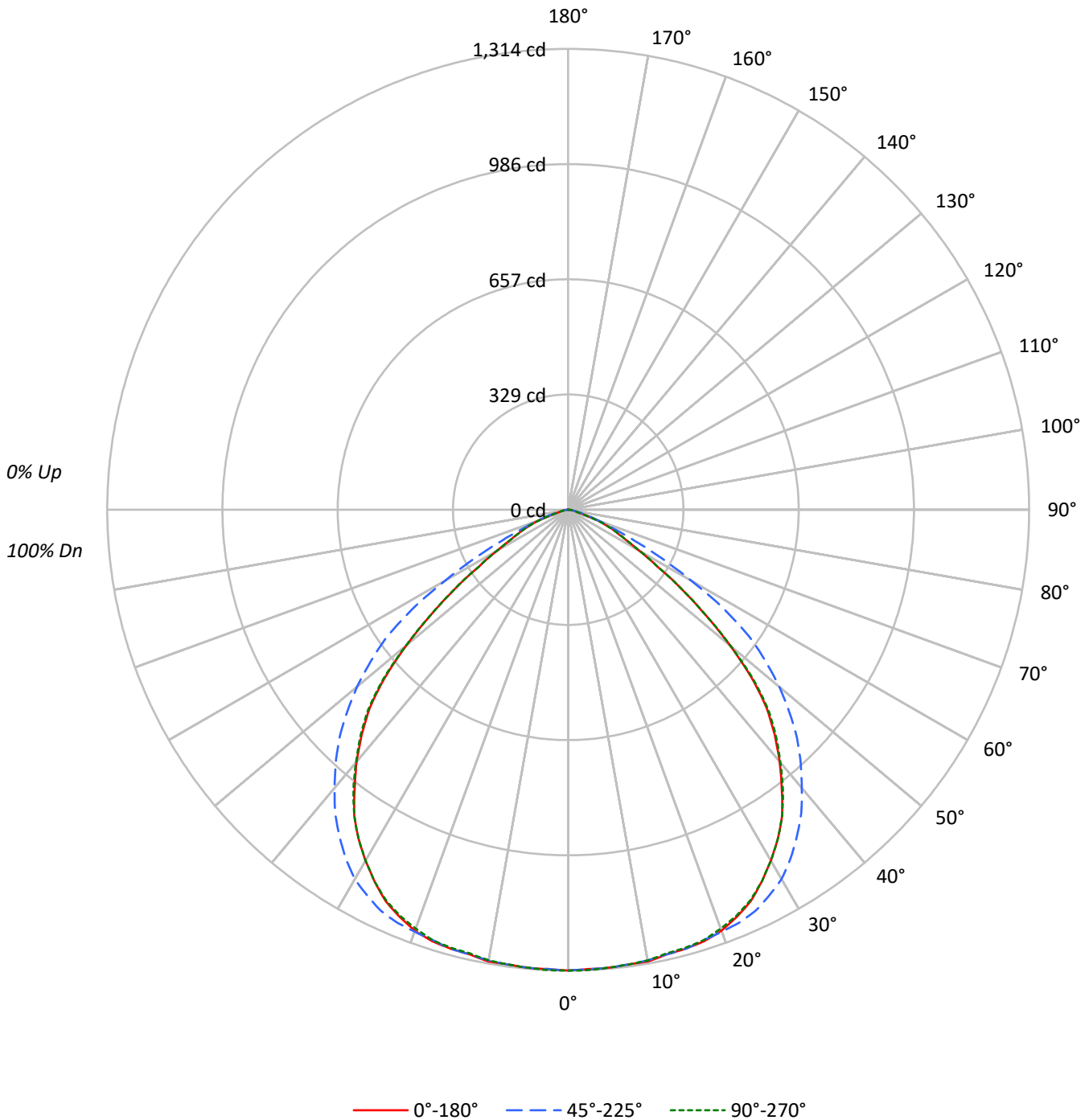
Input Watts (W): 38  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90	88
2	103	96	90	85	100	94	89	84	91	86	82	87	84	81	85	82	79	77
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	61	59
5	81	69	61	55	79	68	61	55	66	60	55	64	59	54	63	58	53	52
6	75	63	55	49	73	62	54	49	60	53	48	59	53	48	57	52	48	46
7	70	57	49	44	68	57	49	43	55	48	43	54	47	43	52	47	43	41
8	65	52	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37
9	61	48	41	35	59	48	40	35	47	40	35	46	39	35	45	39	35	33
10	57	45	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30

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

	0°	45°	90°
0°	100586	100586	100586
5°	100739	100739	100739
10°	101663	101430	101430
15°	102684	102684	102438
20°	104060	104304	103563
25°	104016	106601	103763
30°	102102	107502	102102
35°	99376	106234	99376
40°	93745	103517	94055
45°	86675	99914	87335
50°	71698	93526	72056
55°	52606	84020	53019
60°	35562	62230	36021
65°	27131	37636	27131
70°	19828	21194	19157
75°	8133	11741	8133
80°	6744	6744	6744
85°	5357	5357	5357



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	124.9	4.1
10°-20°	366.2	11.9
20°-30°	572.0	18.6
30°-40°	684.2	22.2
40°-50°	657.6	21.4
50°-60°	441.7	14.3
60°-70°	180.3	5.9
70°-80°	44.8	1.5
80°-90°	7.1	0.2
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°	1063.2	34.5
0°-40°	1747.3	56.8
0°-60°	2846.6	92.5
0°-90°	3078.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3078.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1314	1314	1314	1314	1314	
5°	1311	1311	1311	1311	1311	125
15°	1296	1296	1296	1293	1293	367
25°	1232	1244	1262	1241	1229	565
35°	1064	1094	1137	1097	1064	660
45°	801	859	923	862	807	607
55°	394	477	630	480	397	358
65°	150	168	208	168	150	151
75°	28	31	40	31	28	40
85°	6	6	6	6	6	7
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1314.1	1314.1	1314.1	1314.1	1314.1
2.5°	1311.1	1311.1	1311.1	1314.1	1314.1
5°	1311.1	1311.1	1311.1	1311.1	1311.1
7.5°	1308.0	1308.0	1308.0	1308.0	1308.0
10°	1308.0	1305.0	1305.0	1305.0	1305.0
12.5°	1298.9	1298.9	1298.9	1298.9	1295.8
15°	1295.8	1295.8	1295.8	1292.7	1292.7
17.5°	1289.7	1289.7	1286.6	1286.6	1286.6
20°	1277.5	1280.5	1280.5	1277.5	1271.4
22.5°	1256.1	1265.2	1274.4	1262.2	1253.0
25°	1231.6	1243.8	1262.2	1240.8	1228.6
27.5°	1195.0	1213.3	1240.8	1213.3	1195.0
30°	1155.2	1179.7	1216.3	1179.7	1155.2
32.5°	1112.4	1139.9	1179.7	1139.9	1112.4
35°	1063.5	1094.1	1136.9	1097.2	1063.5
37.5°	999.4	1042.1	1091.0	1048.3	1005.5
40°	938.2	984.1	1036.0	987.1	941.3
42.5°	871.0	923.0	981.0	926.0	877.1
45°	800.7	858.8	923.0	861.8	806.8
47.5°	709.0	779.3	855.7	788.5	715.1
50°	602.1	690.7	785.4	696.8	605.1
52.5°	495.1	580.7	709.0	586.8	495.1
55°	394.2	476.8	629.6	479.8	397.3
57.5°	302.6	375.9	525.7	382.0	302.6
60°	232.3	287.3	406.5	290.3	235.3
62.5°	183.4	217.0	299.5	213.9	183.4
65°	149.8	168.1	207.8	168.1	149.8
67.5°	119.2	131.4	137.5	131.4	119.2
70°	88.6	100.9	94.7	100.9	85.6
72.5°	52.0	64.2	64.2	64.2	48.9
75°	27.5	30.6	39.7	30.6	27.5
77.5°	21.4	21.4	24.4	21.4	21.4
80°	15.3	15.3	15.3	15.3	15.3
82.5°	9.2	9.2	9.2	9.2	9.2
85°	6.1	6.1	6.1	6.1	6.1
87.5°	3.1	3.1	3.1	3.1	3.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)