

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: P252982

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

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P252982  
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-S4M24-41SWDMB  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, DEEP TRIM MATTE BLACK  
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2203.3 lumens  
Efficiency: N/A  
Efficacy: 58.0 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

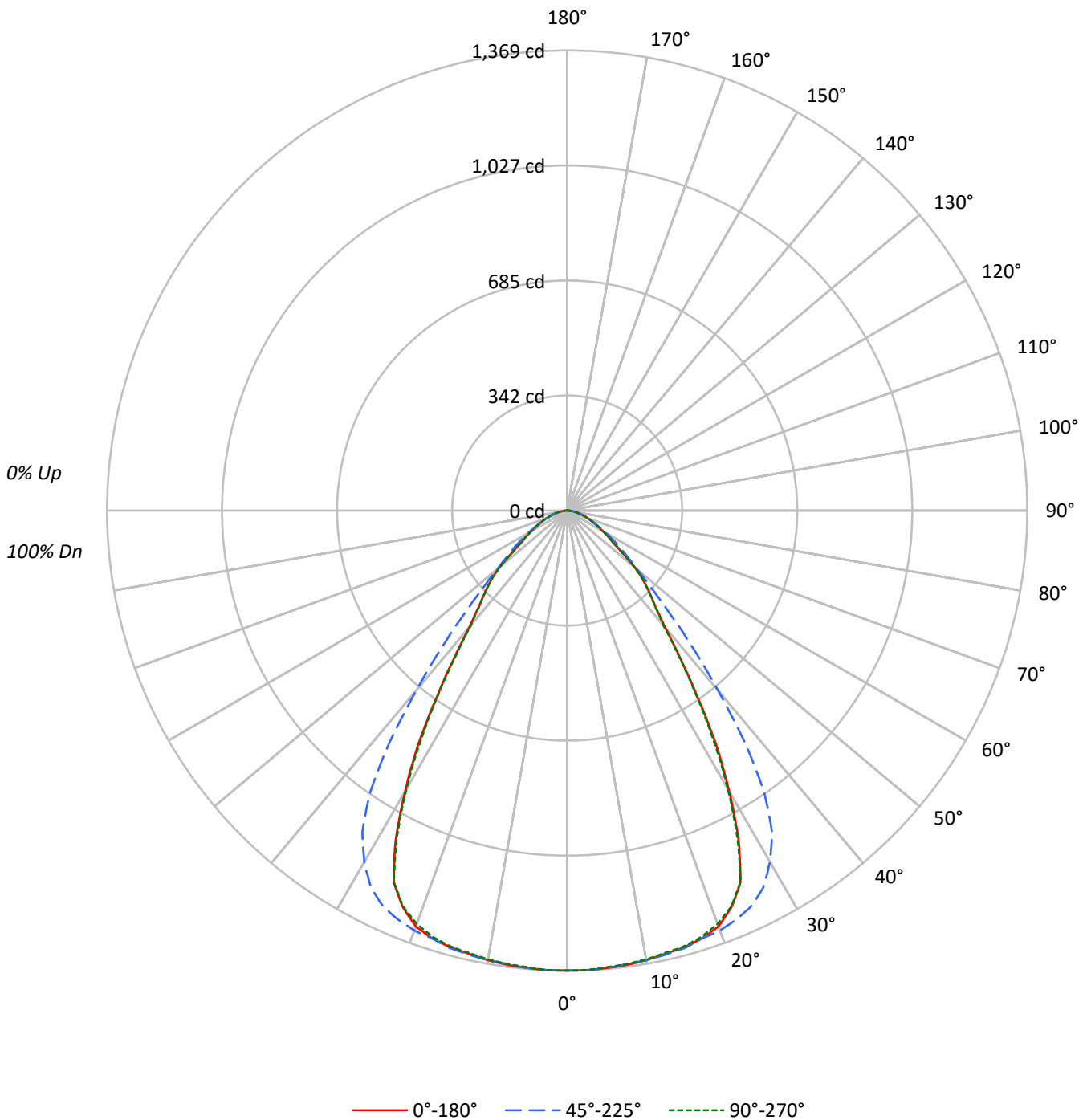
Input Watts (W): 38  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	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°	104757	104757	104757
5°	104958	104958	104758
10°	105565	105565	105363
15°	106591	106797	106384
20°	107237	108295	106593
25°	103037	109641	103037
30°	85247	106680	84558
35°	63092	95489	62606
40°	45064	69545	44544
45°	37530	46276	37530
50°	31354	32283	31354
55°	22259	25742	22606
60°	18753	20361	18753
65°	16047	16518	16047
70°	14010	14010	14010
75°	12332	12332	12332
80°	10359	10359	10359
85°	9134	9134	9134



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	130.1	5.9
10°-20°	380.1	17.2
20°-30°	567.9	25.8
30°-40°	505.5	22.9
40°-50°	300.8	13.7
50°-60°	170.4	7.7
60°-70°	91.4	4.1
70°-80°	44.8	2.0
80°-90°	12.4	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°	1078.1	48.9
0°-40°	1583.6	71.9
0°-60°	2054.8	93.3
0°-90°	2203.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2203.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1369	1369	1369	1369	1369	
5°	1366	1366	1366	1366	1363	130
15°	1345	1345	1348	1342	1342	380
25°	1220	1254	1298	1251	1220	544
35°	675	790	1022	787	670	426
45°	347	373	428	370	347	269
55°	167	185	193	185	169	159
65°	89	91	91	91	89	89
75°	42	42	42	42	42	45
85°	10	10	10	10	10	12
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1368.6	1368.6	1368.6	1368.6	1368.6
2.5°	1368.6	1368.6	1368.6	1368.6	1368.6
5°	1366.0	1366.0	1366.0	1366.0	1363.4
7.5°	1363.4	1360.8	1360.8	1360.8	1360.8
10°	1358.2	1358.2	1358.2	1355.6	1355.6
12.5°	1350.4	1350.4	1353.0	1350.4	1347.7
15°	1345.1	1345.1	1347.7	1342.5	1342.5
17.5°	1334.7	1337.3	1334.7	1334.7	1329.5
20°	1316.5	1324.3	1329.5	1321.7	1308.6
22.5°	1277.4	1298.2	1316.5	1295.6	1274.8
25°	1220.0	1253.9	1298.2	1251.3	1220.0
27.5°	1105.3	1191.3	1264.3	1183.5	1097.5
30°	964.5	1068.8	1207.0	1061.0	956.7
32.5°	823.8	928.0	1134.0	922.8	810.7
35°	675.2	789.9	1021.9	787.3	670.0
37.5°	550.0	654.3	865.5	649.1	544.8
40°	451.0	531.8	696.0	529.2	445.8
42.5°	388.4	432.7	550.0	430.1	388.4
45°	346.7	372.8	427.5	370.2	346.7
47.5°	307.6	328.5	336.3	325.9	307.6
50°	263.3	286.8	271.1	286.8	263.3
52.5°	208.5	237.2	226.8	239.8	205.9
55°	166.8	185.1	192.9	185.1	169.4
57.5°	146.0	151.2	161.6	151.2	146.0
60°	122.5	127.7	133.0	127.7	122.5
62.5°	104.3	109.5	109.5	109.5	106.9
65°	88.6	91.2	91.2	91.2	88.6
67.5°	75.6	75.6	75.6	75.6	75.6
70°	62.6	62.6	62.6	62.6	62.6
72.5°	52.1	52.1	52.1	52.1	52.1
75°	41.7	41.7	41.7	41.7	41.7
77.5°	33.9	33.9	31.3	33.9	31.3
80°	23.5	23.5	23.5	23.5	23.5
82.5°	18.2	18.2	18.2	18.2	18.2
85°	10.4	10.4	10.4	10.4	10.4
87.5°	5.2	5.2	5.2	5.2	5.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)