

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: P252922

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

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P252922  
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  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, SHALLOW 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: 3419.4 lumens  
Efficiency: N/A  
Efficacy: 90.0 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

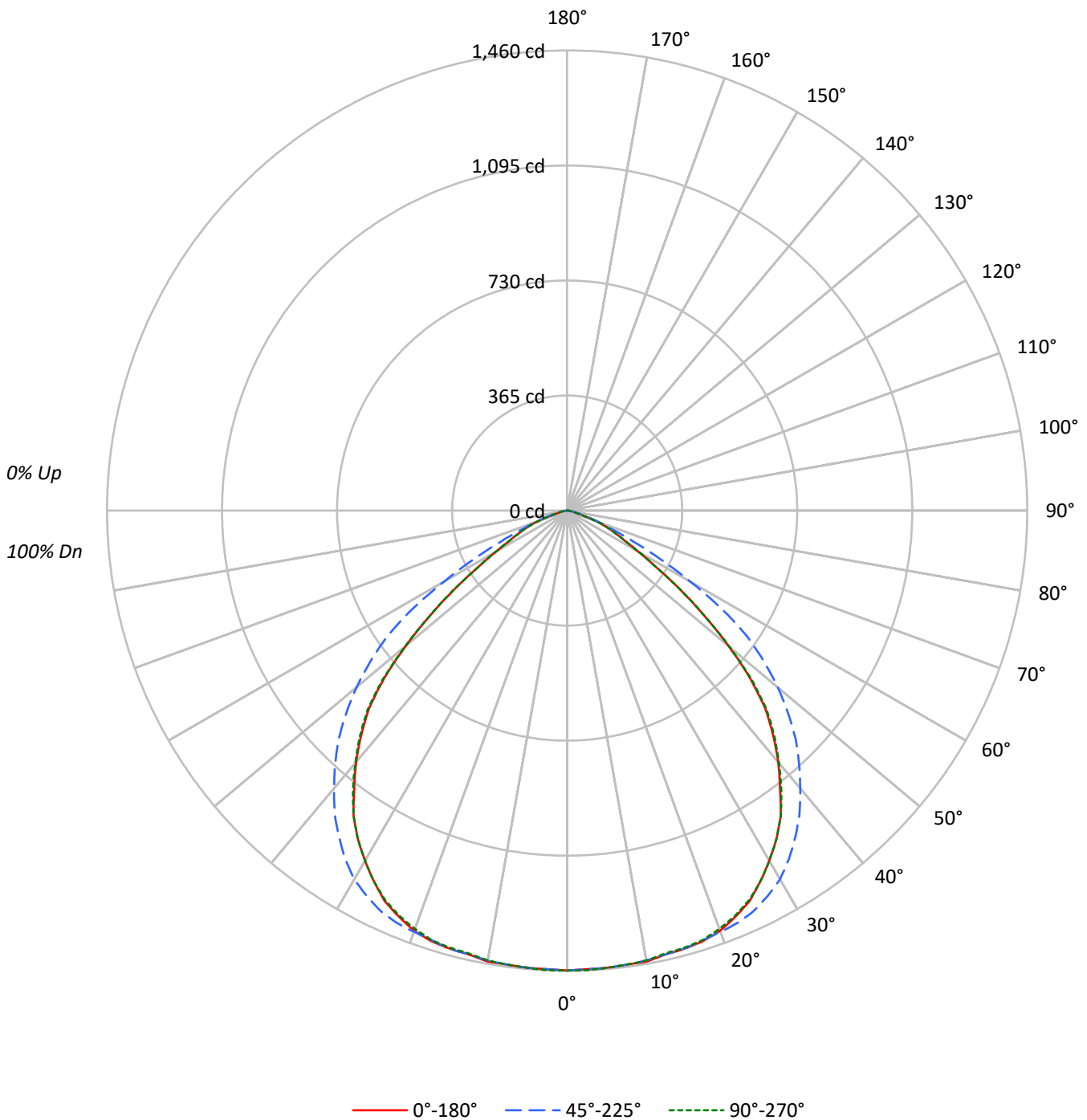
Input Watts (W): 38  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

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

	0°	45°	90°
0°	111715	111715	111715
5°	111881	111881	111881
10°	112910	112646	112646
15°	114039	114039	113778
20°	115569	115846	115016
25°	115528	118391	115241
30°	113398	119399	113398
35°	110374	117980	110374
40°	104117	114968	104457
45°	96266	110966	97002
50°	79629	103874	80034
55°	58437	93308	58878
60°	39496	69103	40017
65°	30120	41802	30120
70°	22022	23544	21261
75°	9020	13042	9020
80°	7494	7494	7494
85°	5972	5972	5972



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	138.8	4.1
10°-20°	406.7	11.9
20°-30°	635.3	18.6
30°-40°	759.8	22.2
40°-50°	730.3	21.4
50°-60°	490.6	14.3
60°-70°	200.3	5.9
70°-80°	49.8	1.5
80°-90°	7.9	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°	1180.8	34.5
0°-40°	1940.6	56.8
0°-60°	3161.5	92.5
0°-90°	3419.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3419.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1460	1460	1460	1460	1460	
5°	1456	1456	1456	1456	1456	139
15°	1439	1439	1439	1436	1436	407
25°	1368	1381	1402	1378	1364	628
35°	1181	1215	1263	1218	1181	733
45°	889	954	1025	957	896	674
55°	438	530	699	533	441	397
65°	166	187	231	187	166	168
75°	30	34	44	34	30	45
85°	7	7	7	7	7	8
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1459.5	1459.5	1459.5	1459.5	1459.5
2.5°	1456.1	1456.1	1456.1	1459.5	1459.5
5°	1456.1	1456.1	1456.1	1456.1	1456.1
7.5°	1452.7	1452.7	1452.7	1452.7	1452.7
10°	1452.7	1449.3	1449.3	1449.3	1449.3
12.5°	1442.5	1442.5	1442.5	1442.5	1439.1
15°	1439.1	1439.1	1439.1	1435.8	1435.8
17.5°	1432.4	1432.4	1429.0	1429.0	1429.0
20°	1418.8	1422.2	1422.2	1418.8	1412.0
22.5°	1395.0	1405.2	1415.4	1401.8	1391.6
25°	1367.9	1381.4	1401.8	1378.1	1364.5
27.5°	1327.1	1347.5	1378.1	1347.5	1327.1
30°	1283.0	1310.2	1350.9	1310.2	1283.0
32.5°	1235.5	1266.0	1310.2	1266.0	1235.5
35°	1181.2	1215.1	1262.6	1218.5	1181.2
37.5°	1109.9	1157.4	1211.7	1164.2	1116.7
40°	1042.0	1092.9	1150.6	1096.3	1045.4
42.5°	967.4	1025.1	1089.5	1028.4	974.1
45°	889.3	953.8	1025.1	957.2	896.1
47.5°	787.5	865.5	950.4	875.7	794.2
50°	668.7	767.1	872.3	773.9	672.1
52.5°	549.9	644.9	787.5	651.7	549.9
55°	437.9	529.5	699.2	532.9	441.2
57.5°	336.0	417.5	583.8	424.3	336.0
60°	258.0	319.1	451.4	322.5	261.4
62.5°	203.7	241.0	332.6	237.6	203.7
65°	166.3	186.7	230.8	186.7	166.3
67.5°	132.4	146.0	152.7	146.0	132.4
70°	98.4	112.0	105.2	112.0	95.0
72.5°	57.7	71.3	71.3	71.3	54.3
75°	30.5	33.9	44.1	33.9	30.5
77.5°	23.8	23.8	27.2	23.8	23.8
80°	17.0	17.0	17.0	17.0	17.0
82.5°	10.2	10.2	10.2	10.2	10.2
85°	6.8	6.8	6.8	6.8	6.8
87.5°	3.4	3.4	3.4	3.4	3.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)