

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: P241659

Luminaire Tested: **PRS415D010-S4M12-44SMDMB-4000K**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P241659  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-38)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PRS415D010-S4M12-44SMDMB-4000K  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM DISTRIBUTION, SHALLOW TRIM MATTE BLACK  
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1250.2 lumens  
Efficiency: N/A  
Efficacy: 104.2 lumens/watt  
Spacing Criteria (0/90/45): 1 / 1 / 1.06  
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')  
CIE Type: Direct

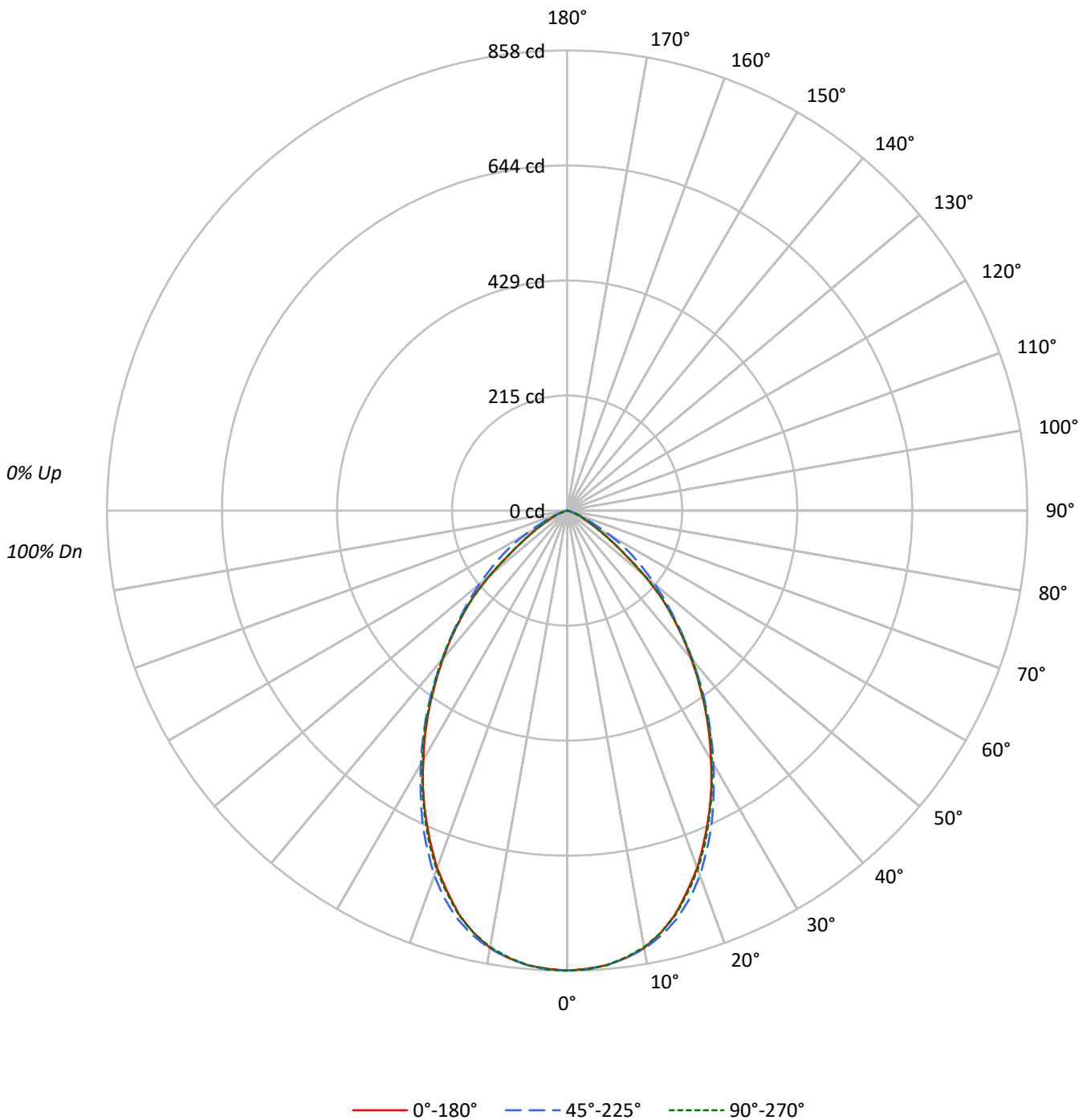
Input Watts (W): 12  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	109	106	103	110	107	104	101	103	100	98	99	97	95	95	94	93	91					91			
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	85	83	81					81			
3	98	90	84	79	96	88	83	78	86	81	77	83	79	76	81	77	74	73					73			
4	91	82	75	70	89	81	74	70	78	73	69	76	72	68	74	70	67	65					65			
5	85	75	68	63	84	74	67	62	72	66	62	70	65	61	69	64	61	59					59			
6	80	69	62	56	78	68	61	56	66	60	56	65	60	55	64	59	55	53					53			
7	75	64	56	51	73	63	56	51	62	55	51	60	55	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	48	43	53	47	43	52	47	43	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°	65644	65644	65644
5°	65372	65372	65372
10°	64348	64449	64239
15°	61755	62499	61858
20°	57752	58966	57972
25°	52811	53951	53039
30°	47392	48223	47631
35°	41769	42404	42021
40°	35891	36301	36301
45°	29823	30559	29974
50°	22197	25412	22351
55°	14052	20364	13879
60°	8894	14268	8680
65°	5868	8078	5868
70°	3335	4230	3335
75°	0	1213	0
80°	0	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	80.5	6.4
10°-20°	219.3	17.5
20°-30°	290.3	23.2
30°-40°	282.8	22.6
40°-50°	216.5	17.3
50°-60°	115.5	9.2
60°-70°	40.2	3.2
70°-80°	5.2	0.4
80°-90°	0.0	0.0
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°	590.1	47.2
0°-40°	872.9	69.8
0°-60°	1204.9	96.4
0°-90°	1250.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1250.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	858	858	858	858	858	
5°	851	851	851	851	851	80
15°	779	785	789	785	781	218
25°	625	635	639	635	628	287
35°	447	454	454	456	450	279
45°	276	281	282	284	277	211
55°	105	122	153	123	104	99
65°	32	39	45	38	32	34
75°	0	1	4	1	0	4
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	857.6	857.6	857.6	857.6	857.6
2.5°	854.9	854.9	856.2	854.9	856.2
5°	850.8	850.8	850.8	850.8	850.8
7.5°	841.4	841.4	841.4	841.4	840.0
10°	827.9	827.9	829.2	827.9	826.5
12.5°	806.3	809.0	811.7	810.3	806.3
15°	779.3	784.7	788.7	784.7	780.6
17.5°	744.1	750.9	759.0	752.2	746.8
20°	709.0	714.4	723.9	717.1	711.7
22.5°	667.2	675.3	682.0	678.0	671.2
25°	625.3	634.7	638.8	634.7	628.0
27.5°	582.1	588.8	591.5	592.9	584.8
30°	536.2	544.3	545.6	547.0	538.9
32.5°	492.9	499.7	499.7	503.7	497.0
35°	447.0	453.8	453.8	456.5	449.7
37.5°	402.5	409.2	407.9	411.9	405.2
40°	359.2	364.6	363.3	366.0	363.3
42.5°	317.4	322.8	321.4	324.1	320.1
45°	275.5	280.9	282.3	283.6	276.9
47.5°	235.0	241.7	245.8	244.4	235.0
50°	186.4	202.6	213.4	205.3	187.7
52.5°	139.1	162.1	181.0	163.4	141.8
55°	105.3	121.5	152.6	122.9	104.0
57.5°	78.3	91.8	122.9	90.5	77.0
60°	58.1	68.9	93.2	67.5	56.7
62.5°	43.2	51.3	64.8	50.0	43.2
65°	32.4	39.2	44.6	37.8	32.4
67.5°	24.3	28.4	29.7	28.4	23.0
70°	14.9	18.9	18.9	18.9	14.9
72.5°	6.8	9.5	10.8	9.5	6.8
75°	0.0	1.4	4.1	1.4	0.0
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)