

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: P241728

Luminaire Tested: **PRS410D010-S4M12-44SNDH**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P241728  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-43)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PRS410D010-S4M12-44SNDH  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" NARROW DISTRIBUTION, SHALLOW TRIM HAZE  
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

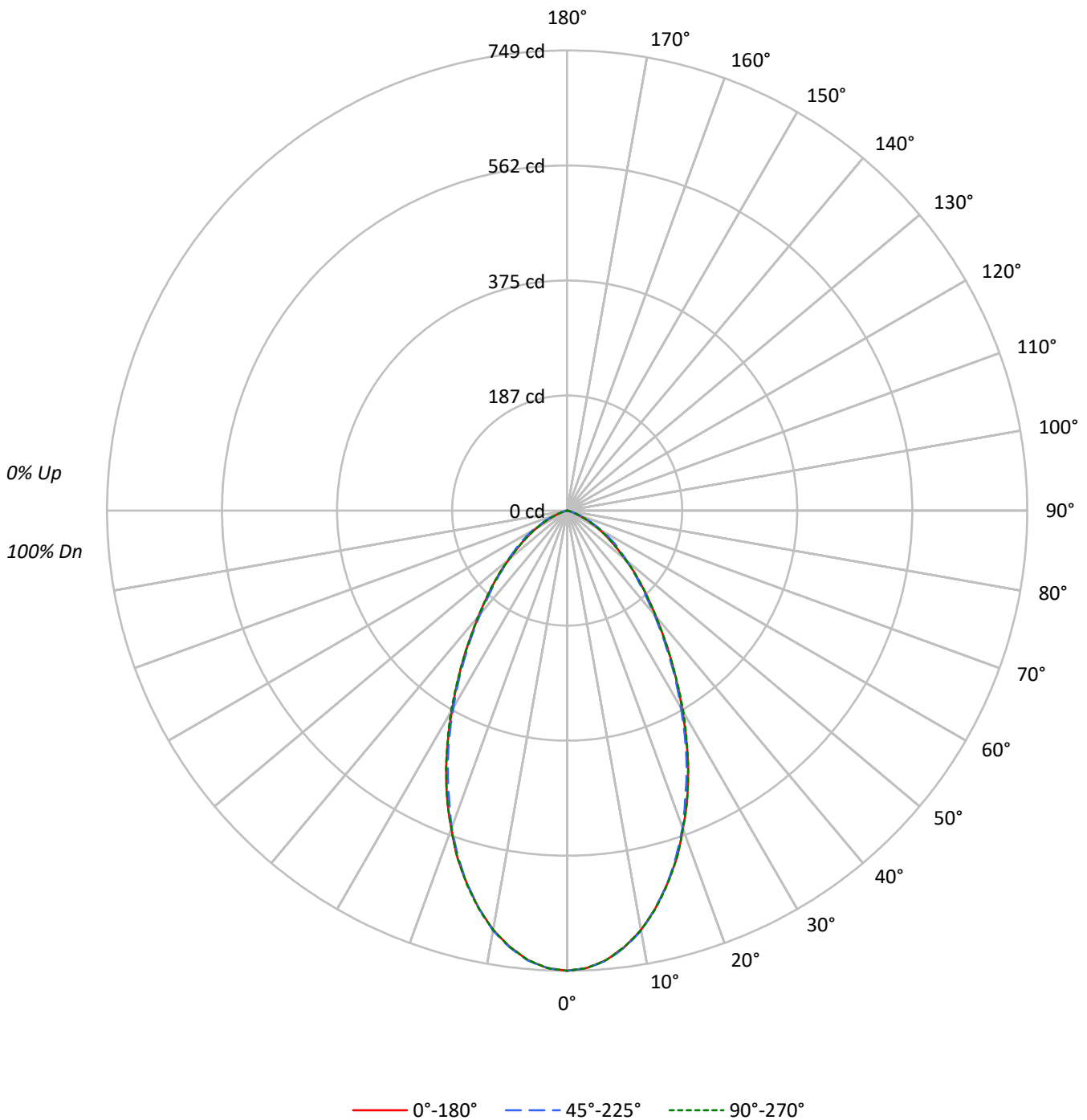
Lumens per Lamp: N/A  
Luminaire Lumens: 893.0 lumens  
Efficiency: N/A  
Efficacy: 89.3 lumens/watt  
Spacing Criteria (0/90/45): 0.88 / 0.88 / 0.92  
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')  
CIE Type: Direct

Input Watts (W): 10  
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	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				
1	112	109	106	103	110	107	104	102	103	100	98	99	97	95	95	94	93	91				
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82				
3	98	90	84	79	96	89	83	79	86	81	77	84	80	76	81	78	75	73				
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66				
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60				
6	81	70	63	58	79	69	62	58	68	62	57	66	61	57	65	60	56	55				
7	76	65	58	53	74	64	57	53	63	57	52	62	56	52	60	55	52	50				
8	72	60	53	49	70	60	53	48	59	52	48	57	52	48	56	51	48	46				
9	68	56	49	45	66	56	49	45	55	49	45	54	48	44	53	48	44	43				
10	64	53	46	42	63	52	46	42	51	46	41	51	45	41	50	45	41	40				

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

	0°	45°	90°
0°	57339	57339	57339
5°	56405	56482	56405
10°	53871	53948	53871
15°	49852	49852	49931
20°	44890	44727	44890
25°	39365	38858	39365
30°	33065	32711	33418
35°	27472	27005	27472
40°	22382	21982	22482
45°	18402	17969	18511
50°	14766	15004	14647
55°	11610	12678	11610
60°	8879	9798	8879
65°	6158	7064	5977
70°	3133	4028	3133
75°	296	1183	296
80°	0	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.8	7.7
10°-20°	175.5	19.7
20°-30°	211.7	23.7
30°-40°	182.9	20.5
40°-50°	130.9	14.7
50°-60°	81.0	9.1
60°-70°	36.9	4.1
70°-80°	5.2	0.6
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°	456.0	51.1
0°-40°	638.9	71.6
0°-60°	850.9	95.3
0°-90°	893.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	893.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	749	749	749	749	749	
5°	734	734	735	734	734	69
15°	629	629	629	630	630	176
25°	466	463	460	464	466	213
35°	294	291	289	293	294	184
45°	170	168	166	169	171	132
55°	87	89	95	89	87	79
65°	34	37	39	37	33	34
75°	1	2	4	2	1	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°	749.1	749.1	749.1	749.1	749.1
2.5°	745.1	745.1	745.1	745.1	745.1
5°	734.1	734.1	735.1	734.1	734.1
7.5°	716.1	717.1	717.1	717.1	716.1
10°	693.1	693.1	694.1	693.1	693.1
12.5°	663.1	663.1	663.1	664.1	664.1
15°	629.1	629.1	629.1	630.1	630.1
17.5°	593.1	592.1	590.1	591.1	593.1
20°	551.1	550.1	549.1	550.1	551.1
22.5°	510.1	506.1	503.1	508.1	510.1
25°	466.1	463.1	460.1	464.1	466.1
27.5°	420.1	418.1	415.1	418.1	421.1
30°	374.1	374.1	370.1	374.1	378.1
32.5°	333.0	332.0	329.0	331.0	334.0
35°	294.0	291.0	289.0	293.0	294.0
37.5°	257.0	256.0	253.0	256.0	257.0
40°	224.0	222.0	220.0	223.0	225.0
42.5°	196.0	194.0	191.0	194.0	196.0
45°	170.0	168.0	166.0	169.0	171.0
47.5°	147.0	146.0	144.0	146.0	147.0
50°	124.0	126.0	126.0	125.0	123.0
52.5°	104.0	105.0	109.0	105.0	104.0
55°	87.0	89.0	95.0	89.0	87.0
57.5°	72.0	74.0	79.0	74.0	72.0
60°	58.0	61.0	64.0	61.0	58.0
62.5°	45.0	49.0	50.0	48.0	45.0
65°	34.0	37.0	39.0	37.0	33.0
67.5°	23.0	27.0	28.0	27.0	23.0
70°	14.0	18.0	18.0	18.0	14.0
72.5°	7.0	9.0	10.0	9.0	7.0
75°	1.0	2.0	4.0	2.0	1.0
77.5°	0.0	0.0	1.0	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)