

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: P241878

Luminaire Tested: **PRS410D010-S4M12-41SMDMW**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P241878  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-53)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PRS410D010-S4M12-41SMDMW  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM DISTRIBUTION, DEEP TRIM MATTE WHITE  
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 914.0 lumens  
Efficiency: N/A  
Efficacy: 91.4 lumens/watt  
Spacing Criteria (0/90/45): 0.98 / 0.98 / 1.02  
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')  
CIE Type: Direct

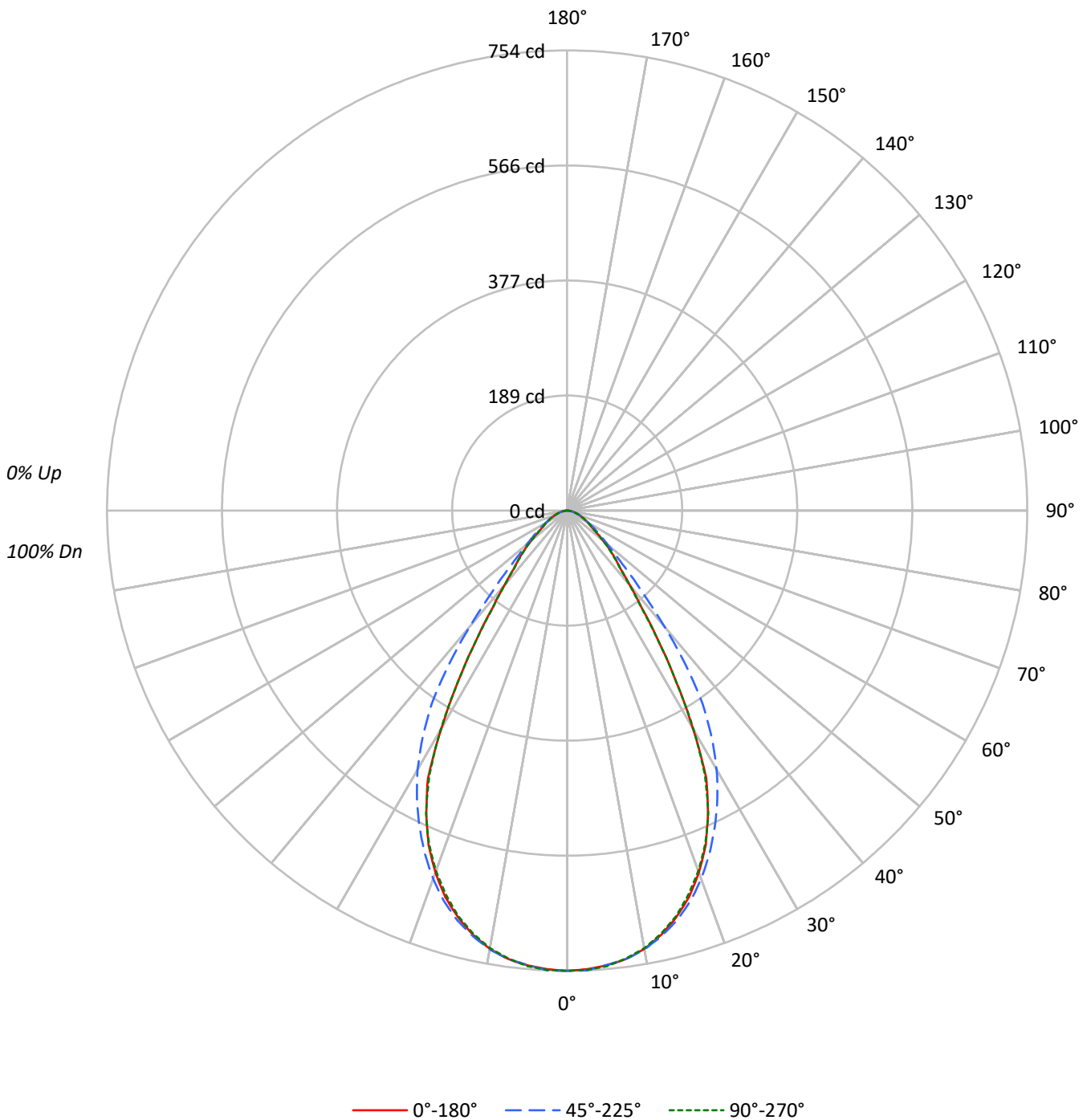
Input Watts (W): 10  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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	102	103	100	98	99	97	95	95	94	93	91					91			
2	105	100	95	91	103	98	93	90	94	91	88	91	88	86	89	86	84	82					82			
3	99	91	85	81	97	90	84	80	87	83	79	85	81	77	82	79	76	74					74			
4	93	84	78	73	91	83	77	72	81	75	71	78	74	70	77	73	70	68					68			
5	87	78	71	66	86	77	70	66	75	69	65	73	68	64	71	67	64	62					62			
6	82	72	65	60	81	71	65	60	70	64	60	68	63	59	67	62	59	57					57			
7	78	67	60	55	76	66	60	55	65	59	55	64	58	55	62	58	54	53					53			
8	73	63	56	51	72	62	55	51	61	55	51	60	54	51	59	54	50	49					49			
9	69	59	52	47	68	58	52	47	57	51	47	56	51	47	55	50	47	45					45			
10	66	55	48	44	65	55	48	44	54	48	44	53	48	44	52	47	44	42					42			

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

	0°	45°	90°
0°	57721	57721	57721
5°	57481	57404	57558
10°	56669	56746	56591
15°	54686	55082	54527
20°	51407	52303	51162
25°	46122	48317	46206
30°	36414	43309	36680
35°	24295	36162	24295
40°	15987	24780	15787
45°	12016	15047	11907
50°	9288	10241	9169
55°	6806	7874	6806
60°	5970	6277	5970
65°	5252	5434	5252
70°	4476	4700	4700
75°	4140	4140	4140
80°	3526	3526	3526
85°	2635	3513	2635



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	70.8	7.7
10°-20°	193.8	21.2
20°-30°	254.5	27.8
30°-40°	196.2	21.5
40°-50°	98.6	10.8
50°-60°	51.8	5.7
60°-70°	29.3	3.2
70°-80°	14.9	1.6
80°-90°	4.1	0.4
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°	519.1	56.8
0°-40°	715.3	78.3
0°-60°	865.7	94.7
0°-90°	914.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	914.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	754	754	754	754	754	
5°	748	749	747	749	749	71
15°	690	692	695	691	688	193
25°	546	562	572	561	547	246
35°	260	304	387	305	260	166
45°	111	122	139	121	110	87
55°	51	56	59	56	51	48
65°	29	29	30	29	29	29
75°	14	14	14	14	14	15
85°	3	3	4	3	3	4
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	754.1	754.1	754.1	754.1	754.1
2.5°	752.1	753.1	754.1	753.1	753.1
5°	748.1	749.1	747.1	749.1	749.1
7.5°	741.1	740.1	741.1	740.1	740.1
10°	729.1	729.1	730.1	728.1	728.1
12.5°	712.1	713.1	714.1	713.1	710.1
15°	690.1	692.1	695.1	691.1	688.1
17.5°	664.1	666.1	671.1	665.1	660.1
20°	631.1	636.1	642.1	636.1	628.1
22.5°	593.1	603.1	609.1	601.1	591.1
25°	546.1	562.1	572.1	561.1	547.1
27.5°	494.0	514.0	533.0	516.0	489.0
30°	412.0	454.0	490.0	456.0	415.0
32.5°	333.0	379.0	441.0	379.0	333.0
35°	260.0	304.0	387.0	305.0	260.0
37.5°	201.0	239.0	319.0	239.0	199.0
40°	160.0	185.0	248.0	184.0	158.0
42.5°	130.0	148.0	184.0	147.0	128.0
45°	111.0	122.0	139.0	121.0	110.0
47.5°	94.0	103.0	106.0	102.0	93.0
50°	78.0	87.0	86.0	86.0	77.0
52.5°	63.0	70.0	71.0	70.0	63.0
55°	51.0	56.0	59.0	56.0	51.0
57.5°	44.0	46.0	50.0	46.0	45.0
60°	39.0	40.0	41.0	40.0	39.0
62.5°	34.0	34.0	34.0	34.0	34.0
65°	29.0	29.0	30.0	29.0	29.0
67.5°	24.0	25.0	25.0	25.0	24.0
70°	20.0	21.0	21.0	21.0	21.0
72.5°	17.0	17.0	17.0	17.0	17.0
75°	14.0	14.0	14.0	14.0	14.0
77.5°	11.0	11.0	11.0	11.0	11.0
80°	8.0	8.0	8.0	8.0	8.0
82.5°	5.0	6.0	6.0	6.0	5.0
85°	3.0	3.0	4.0	3.0	3.0
87.5°	2.0	2.0	2.0	2.0	2.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)