

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: P241928

Luminaire Tested: **PRS410D010-S4M12-41SMDH-4000K**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P241928
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-56)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: PRS410D010-S4M12-41SMDH-4000K
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM DISTRIBUTION, DEEP TRIM HAZE
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 900.8 lumens
Efficiency: N/A
Efficacy: 90.1 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.95 / 0.98
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')
CIE Type: Direct

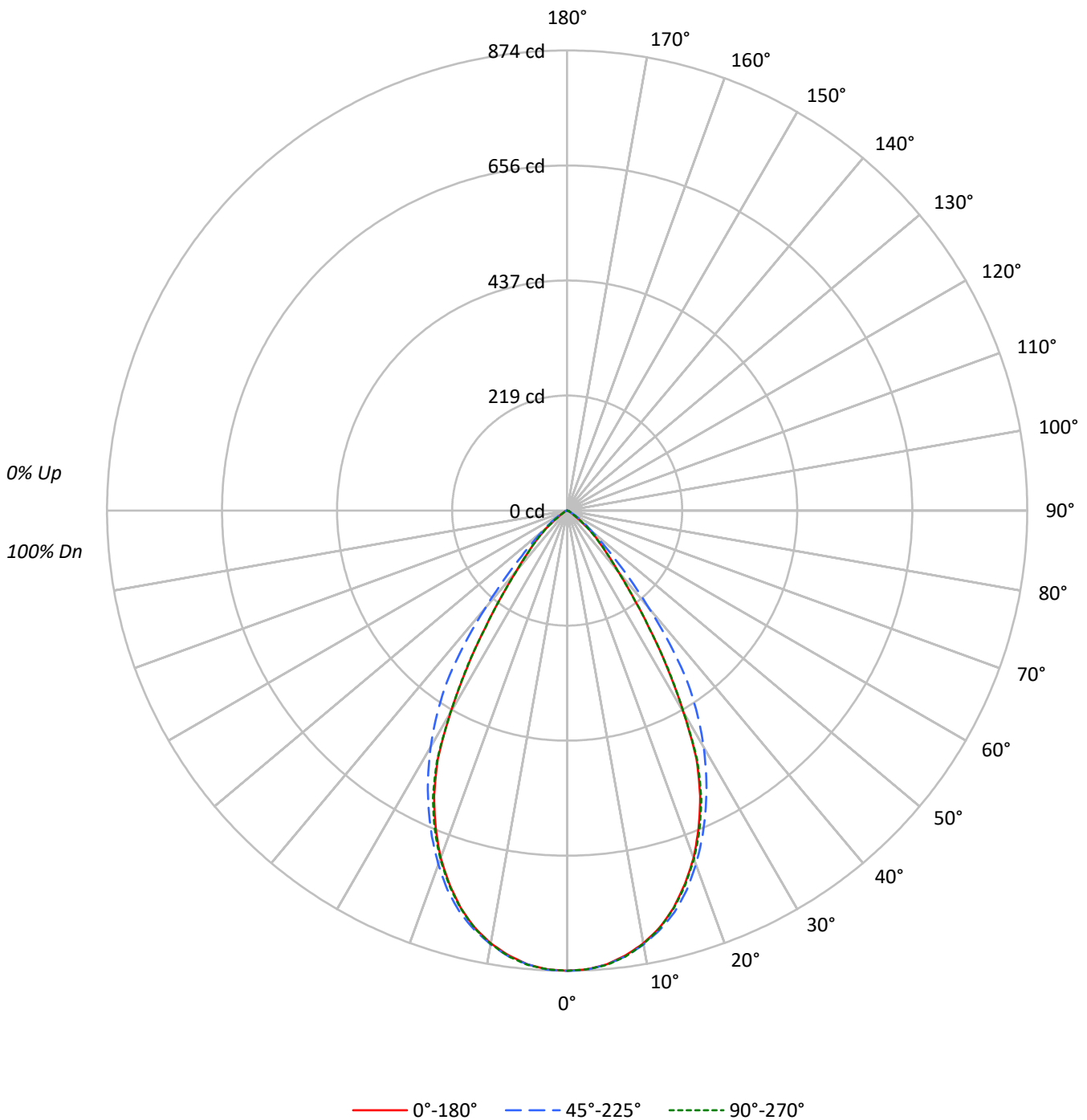
Input Watts (W): 10
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	113	110	108	105	111	108	106	104	104	102	100	100	99	97	97	96	95	93					93			
2	107	102	98	94	105	100	96	93	97	94	91	94	91	89	91	89	87	85					85			
3	101	94	89	85	99	93	88	84	90	86	83	88	84	82	86	83	80	79					79			
4	96	88	82	77	94	87	81	77	84	80	76	82	78	75	80	77	74	73					73			
5	90	82	75	71	89	81	75	71	79	74	70	77	73	69	76	72	69	67					67			
6	86	76	70	65	84	75	69	65	74	68	65	72	68	64	71	67	64	62					62			
7	81	71	65	60	80	71	64	60	69	64	60	68	63	60	67	63	59	58					58			
8	77	67	60	56	76	66	60	56	65	60	56	64	59	55	63	59	55	54					54			
9	73	63	56	52	72	62	56	52	61	56	52	60	55	52	59	55	52	50					50			
10	69	59	53	49	68	59	53	49	58	52	49	57	52	49	56	52	48	47					47			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	66907	66907	66907
5°	66463	66463	66540
10°	64876	65032	64954
15°	61889	62531	61968
20°	57190	58265	57353
25°	50496	52633	50927
30°	39075	45872	39163
35°	25145	37340	25145
40°	14958	24161	14858
45°	9634	13141	9634
50°	5906	7347	5787
55°	2429	4190	2429
60°	1546	2174	1546
65°	924	1286	924
70°	671	895	671
75°	591	591	296
80°	441	441	441
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.7	9.1
10°-20°	219.3	24.3
20°-30°	278.0	30.9
30°-40°	203.1	22.5
40°-50°	84.4	9.4
50°-60°	25.5	2.8
60°-70°	6.5	0.7
70°-80°	2.0	0.2
80°-90°	0.3	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°	578.9	64.3
0°-40°	782.0	86.8
0°-60°	891.9	99.0
0°-90°	900.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	900.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	874	874	874	874	874	
5°	865	865	865	865	866	82
15°	781	785	789	785	782	218
25°	598	612	623	616	603	269
35°	269	316	400	316	269	172
45°	89	102	121	101	89	71
55°	18	25	31	25	18	20
65°	5	6	7	6	5	6
75°	2	2	2	2	1	2
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°	874.1	874.1	874.1	874.1	874.1
2.5°	872.1	872.1	873.1	872.1	872.1
5°	865.0	865.0	865.0	865.0	866.0
7.5°	851.9	852.9	853.9	852.9	853.9
10°	834.7	835.7	836.7	836.7	835.7
12.5°	811.4	813.4	815.4	813.4	812.4
15°	781.0	785.1	789.1	785.1	782.0
17.5°	743.6	747.6	755.7	748.7	745.6
20°	702.1	708.2	715.3	709.2	704.1
22.5°	652.5	663.7	670.8	663.7	656.6
25°	597.9	612.1	623.2	616.1	603.0
27.5°	532.2	556.4	572.6	559.5	535.2
30°	442.1	484.6	519.0	488.7	443.1
32.5°	354.1	398.6	461.3	400.6	356.1
35°	269.1	315.7	399.6	315.7	269.1
37.5°	201.3	242.8	322.7	239.8	201.3
40°	149.7	181.1	241.8	179.1	148.7
42.5°	115.3	134.6	175.0	133.5	114.3
45°	89.0	102.2	121.4	101.2	89.0
47.5°	68.8	77.9	86.0	77.9	67.8
50°	49.6	58.7	61.7	58.7	48.6
52.5°	31.4	41.5	44.5	40.5	32.4
55°	18.2	25.3	31.4	25.3	18.2
57.5°	13.2	15.2	22.3	15.2	13.2
60°	10.1	11.1	14.2	11.1	10.1
62.5°	7.1	8.1	9.1	8.1	7.1
65°	5.1	6.1	7.1	6.1	5.1
67.5°	4.0	5.1	5.1	5.1	4.0
70°	3.0	3.0	4.0	3.0	3.0
72.5°	2.0	2.0	3.0	3.0	2.0
75°	2.0	2.0	2.0	2.0	1.0
77.5°	1.0	1.0	2.0	1.0	1.0
80°	1.0	1.0	1.0	1.0	1.0
82.5°	0.0	1.0	1.0	1.0	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)