

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: P241923

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

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P241923
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
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM DISTRIBUTION, DEEP TRIM HAZE
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 890.0 lumens
Efficiency: N/A
Efficacy: 89.0 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

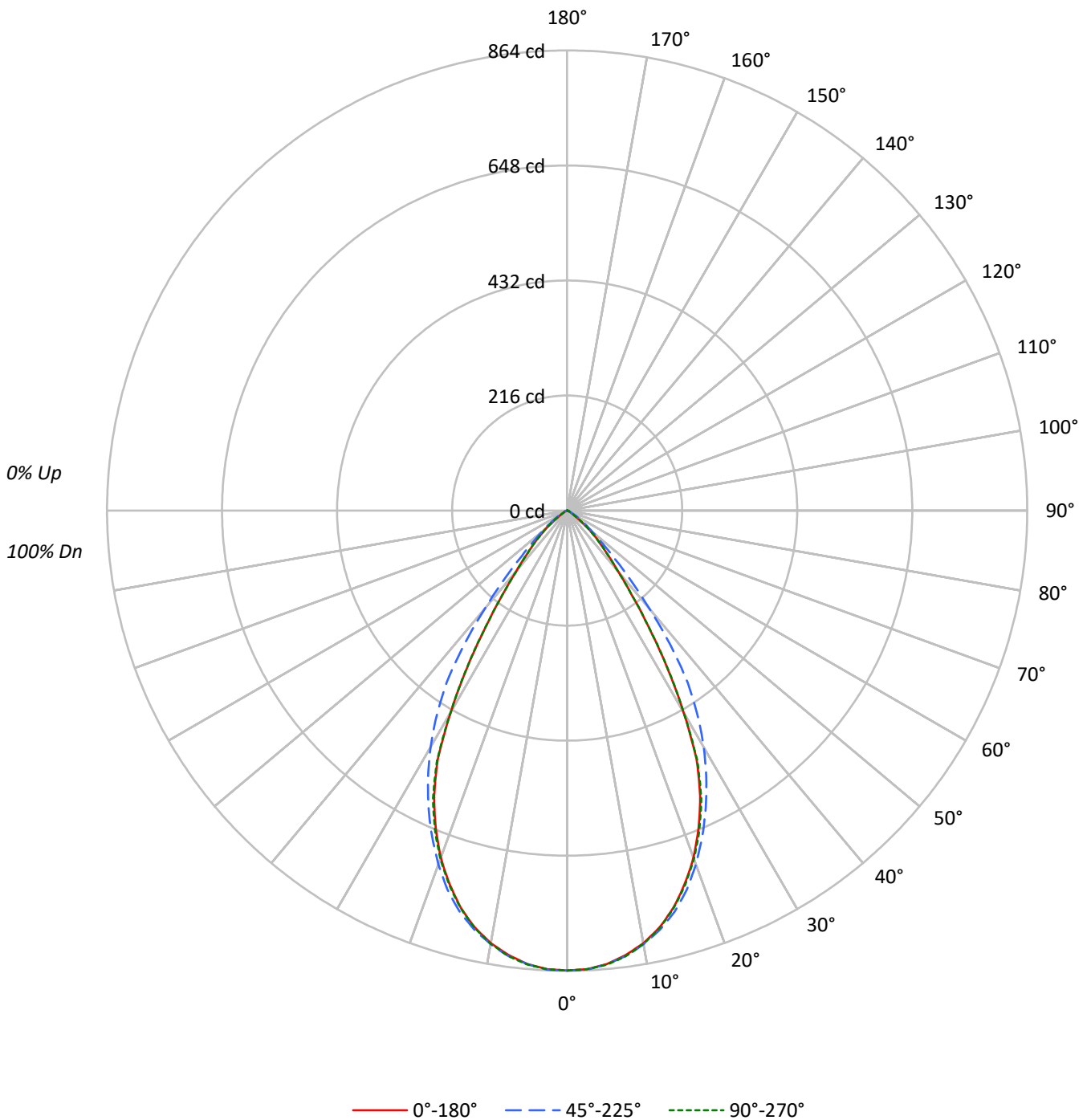
Input Watts (W): 10
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	62	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°	66111	66111	66111
5°	65672	65672	65748
10°	64099	64255	64177
15°	61152	61786	61231
20°	56506	57565	56669
25°	49897	52008	50319
30°	38606	45324	38695
35°	24846	36891	24846
40°	14778	23871	14678
45°	9526	12990	9526
50°	5835	7264	5716
55°	2402	4137	2402
60°	1531	2143	1531
65°	906	1268	906
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°	80.7	9.1
10°-20°	216.7	24.3
20°-30°	274.6	30.9
30°-40°	200.6	22.5
40°-50°	83.4	9.4
50°-60°	25.2	2.8
60°-70°	6.4	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°	572.0	64.3
0°-40°	772.6	86.8
0°-60°	881.2	99.0
0°-90°	890.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	890.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	864	864	864	864	864	
5°	855	855	855	855	856	81
15°	772	776	780	776	773	215
25°	591	605	616	609	596	266
35°	266	312	395	312	266	170
45°	88	101	120	100	88	70
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°	863.7	863.7	863.7	863.7	863.7
2.5°	861.7	861.7	862.7	861.7	861.7
5°	854.7	854.7	854.7	854.7	855.7
7.5°	841.7	842.7	843.7	842.7	843.7
10°	824.7	825.7	826.7	826.7	825.7
12.5°	801.7	803.7	805.7	803.7	802.7
15°	771.7	775.7	779.7	775.7	772.7
17.5°	734.7	738.7	746.7	739.7	736.7
20°	693.7	699.7	706.7	700.7	695.7
22.5°	644.7	655.7	662.7	655.7	648.7
25°	590.8	604.8	615.8	608.8	595.8
27.5°	525.8	549.8	565.8	552.8	528.8
30°	436.8	478.8	512.8	482.8	437.8
32.5°	349.9	393.8	455.8	395.8	351.9
35°	265.9	311.9	394.8	311.9	265.9
37.5°	198.9	239.9	318.9	236.9	198.9
40°	147.9	178.9	238.9	176.9	146.9
42.5°	114.0	132.9	172.9	131.9	113.0
45°	88.0	101.0	120.0	100.0	88.0
47.5°	68.0	77.0	85.0	77.0	67.0
50°	49.0	58.0	61.0	58.0	48.0
52.5°	31.0	41.0	44.0	40.0	32.0
55°	18.0	25.0	31.0	25.0	18.0
57.5°	13.0	15.0	22.0	15.0	13.0
60°	10.0	11.0	14.0	11.0	10.0
62.5°	7.0	8.0	9.0	8.0	7.0
65°	5.0	6.0	7.0	6.0	5.0
67.5°	4.0	5.0	5.0	5.0	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)