

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: P241633

Luminaire Tested: **PRS410D010-S4M12-44SNDMB-3000K**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P241633
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-37)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: PRS410D010-S4M12-44SNDMB-3000K
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" NARROW DISTRIBUTION, SHALLOW TRIM MATTE BLACK
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 777.2 lumens
Efficiency: N/A
Efficacy: 77.7 lumens/watt
Spacing Criteria (0/90/45): 0.87 / 0.87 / 0.91
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')
CIE Type: Direct

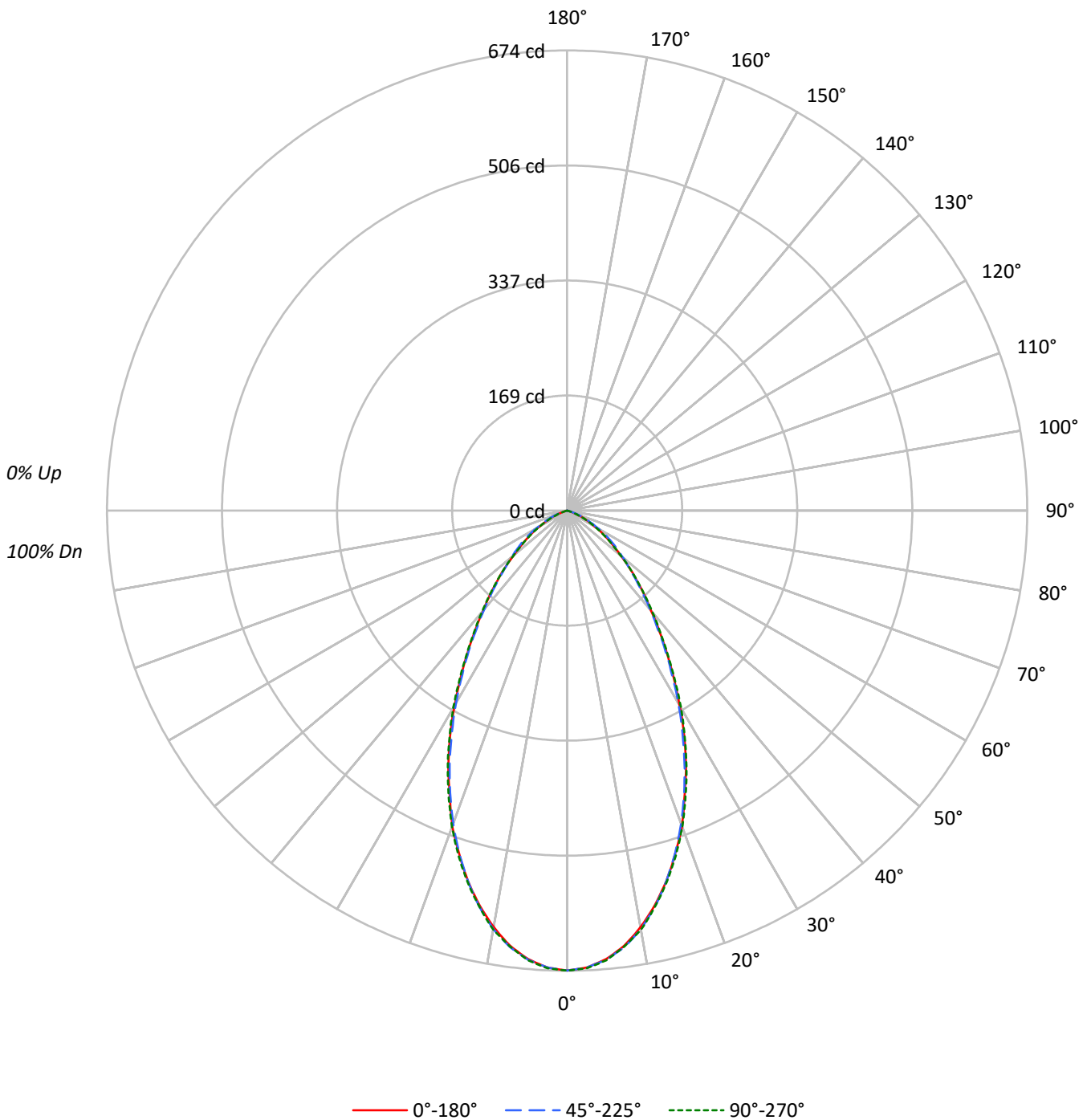
Input Watts (W): 10
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	101	99	99	97	96	95	94	93	91					91			
2	105	99	95	90	103	98	93	89	94	91	87	91	88	85	88	86	84	82					82			
3	98	91	85	80	96	89	84	79	87	82	78	84	80	77	82	78	75	74					74			
4	92	83	76	71	90	82	76	71	80	74	70	78	73	69	76	72	68	67					67			
5	86	76	70	64	85	75	69	64	74	68	63	72	67	63	70	66	62	61					61			
6	81	71	64	58	80	70	63	58	68	62	58	67	61	57	65	61	57	55					55			
7	76	66	58	53	75	65	58	53	63	57	53	62	57	53	61	56	52	51					51			
8	72	61	54	49	71	60	54	49	59	53	49	58	53	49	57	52	48	47					47			
9	68	57	50	46	67	56	50	45	55	49	45	54	49	45	54	49	45	43					43			
10	64	53	47	42	63	53	47	42	52	46	42	51	46	42	50	45	42	40					40			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	51567	51567	51567
5°	50650	50727	50796
10°	48158	48383	48453
15°	44503	44503	44654
20°	40076	39759	40158
25°	34779	34365	34940
30°	29132	28787	29476
35°	23753	23482	23931
40°	19125	18925	19415
45°	15588	15274	15696
50°	12206	12658	12206
55°	9675	10583	9542
60°	7103	8144	7103
65°	4908	5778	4727
70°	2372	3245	2372
75°	0	858	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.8	8.0
10°-20°	156.8	20.2
20°-30°	187.4	24.1
30°-40°	159.0	20.5
40°-50°	111.4	14.3
50°-60°	67.2	8.6
60°-70°	29.9	3.8
70°-80°	3.7	0.5
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°	406.0	52.2
0°-40°	564.9	72.7
0°-60°	743.6	95.7
0°-90°	777.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	777.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	674	674	674	674	674	
5°	659	660	660	660	661	62
15°	562	562	562	564	564	157
25°	412	410	407	411	414	188
35°	254	253	251	255	256	159
45°	144	143	141	144	145	112
55°	72	74	79	74	72	65
65°	27	30	32	30	26	27
75°	0	1	3	1	0	3
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°	673.7	673.7	673.7	673.7	673.7
2.5°	669.8	669.8	669.8	669.8	670.8
5°	659.2	660.2	660.2	660.2	661.1
7.5°	642.8	642.8	644.7	644.7	643.7
10°	619.6	619.6	622.5	623.4	623.4
12.5°	592.5	592.5	594.4	595.4	594.4
15°	561.6	561.6	561.6	564.5	563.5
17.5°	526.8	526.8	525.8	528.7	529.7
20°	492.0	490.1	488.1	490.1	493.0
22.5°	449.5	449.5	447.5	451.4	453.3
25°	411.8	409.8	406.9	410.8	413.7
27.5°	371.2	369.2	365.4	368.3	373.1
30°	329.6	328.6	325.7	328.6	333.5
32.5°	290.0	289.0	286.1	290.0	292.9
35°	254.2	253.2	251.3	255.2	256.1
37.5°	221.3	219.4	217.5	221.3	223.3
40°	191.4	191.4	189.4	191.4	194.3
42.5°	167.2	166.3	163.4	166.3	168.2
45°	144.0	143.1	141.1	144.0	145.0
47.5°	122.8	123.7	121.8	123.7	123.7
50°	102.5	105.4	106.3	105.4	102.5
52.5°	86.0	88.0	91.8	88.0	85.1
55°	72.5	73.5	79.3	73.5	71.5
57.5°	59.0	60.9	65.7	60.9	58.0
60°	46.4	50.3	53.2	49.3	46.4
62.5°	36.7	39.6	41.6	38.7	35.8
65°	27.1	30.0	31.9	30.0	26.1
67.5°	18.4	22.2	23.2	21.3	17.4
70°	10.6	13.5	14.5	13.5	10.6
72.5°	4.8	6.8	7.7	6.8	4.8
75°	0.0	1.0	2.9	1.0	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)