

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: P241874

Luminaire Tested: **PRS415D010-S4M12-41SMDMW-3000K**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P241874
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: PRS415D010-S4M12-41SMDMW-3000K
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM DISTRIBUTION, DEEP TRIM MATTE WHITE
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1177.0 lumens
Efficiency: N/A
Efficacy: 98.1 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

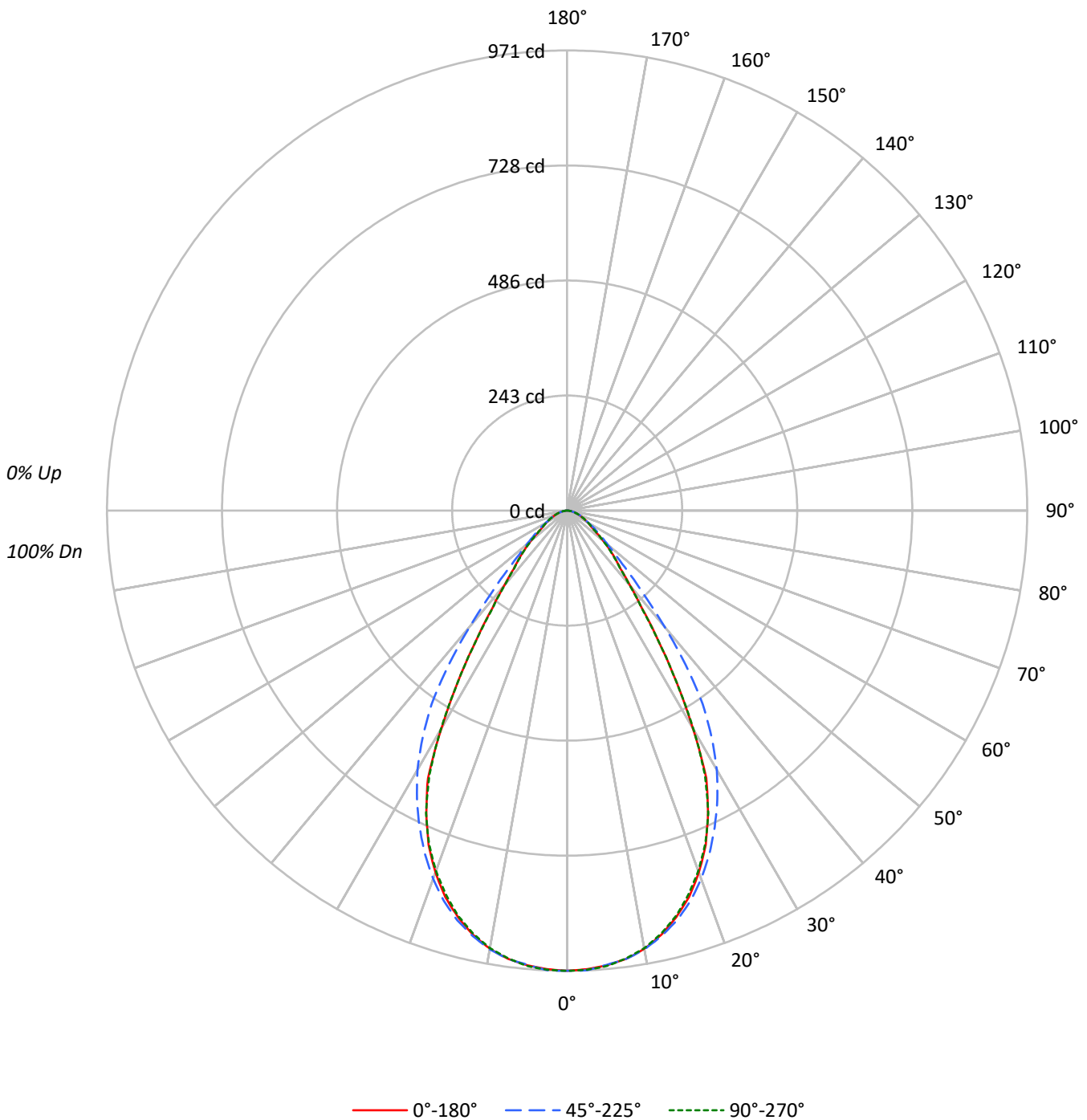
Input Watts (W): 12
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	82	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°	74331	74331	74331
5°	74016	73916	74116
10°	72975	73069	72874
15°	70416	70931	70218
20°	66191	67348	65881
25°	59390	62219	59499
30°	46897	55780	47242
35°	31284	46572	31284
40°	20594	31915	20334
45°	15480	19377	15339
50°	11968	13194	11813
55°	8768	10142	8768
60°	7685	8083	7685
65°	6756	6991	6756
70°	5774	6043	6043
75°	5323	5323	5323
80°	4540	4540	4540
85°	3425	4567	3425



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.2	7.7
10°-20°	249.5	21.2
20°-30°	327.7	27.8
30°-40°	252.7	21.5
40°-50°	127.0	10.8
50°-60°	66.7	5.7
60°-70°	37.7	3.2
70°-80°	19.2	1.6
80°-90°	5.3	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°	668.4	56.8
0°-40°	921.1	78.3
0°-60°	1114.9	94.7
0°-90°	1177.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1177.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	971	971	971	971	971	
5°	963	965	962	965	965	91
15°	889	891	895	890	886	249
25°	703	724	737	722	704	317
35°	335	392	498	393	335	214
45°	143	157	179	156	142	112
55°	66	72	76	72	66	62
65°	37	37	39	37	37	37
75°	18	18	18	18	18	19
85°	4	4	5	4	4	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	971.1	971.1	971.1	971.1	971.1
2.5°	968.5	969.8	971.1	969.8	969.8
5°	963.3	964.6	962.0	964.6	964.6
7.5°	954.3	953.0	954.3	953.0	953.0
10°	938.9	938.9	940.1	937.6	937.6
12.5°	917.0	918.3	919.5	918.3	914.4
15°	888.6	891.2	895.1	889.9	886.1
17.5°	855.1	857.7	864.2	856.4	850.0
20°	812.6	819.1	826.8	819.1	808.8
22.5°	763.7	776.6	784.3	774.0	761.1
25°	703.2	723.8	736.7	722.5	704.5
27.5°	636.2	662.0	686.4	664.5	629.8
30°	530.6	584.7	631.1	587.3	534.5
32.5°	428.9	488.1	568.0	488.1	428.9
35°	334.8	391.5	498.4	392.8	334.8
37.5°	258.9	307.8	410.8	307.8	256.3
40°	206.1	238.3	319.4	237.0	203.5
42.5°	167.4	190.6	237.0	189.3	164.8
45°	143.0	157.1	179.0	155.8	141.7
47.5°	121.1	132.7	136.5	131.4	119.8
50°	100.5	112.0	110.8	110.8	99.2
52.5°	81.1	90.2	91.4	90.2	81.1
55°	65.7	72.1	76.0	72.1	65.7
57.5°	56.7	59.2	64.4	59.2	58.0
60°	50.2	51.5	52.8	51.5	50.2
62.5°	43.8	43.8	43.8	43.8	43.8
65°	37.3	37.3	38.6	37.3	37.3
67.5°	30.9	32.2	32.2	32.2	30.9
70°	25.8	27.0	27.0	27.0	27.0
72.5°	21.9	21.9	21.9	21.9	21.9
75°	18.0	18.0	18.0	18.0	18.0
77.5°	14.2	14.2	14.2	14.2	14.2
80°	10.3	10.3	10.3	10.3	10.3
82.5°	6.4	7.7	7.7	7.7	6.4
85°	3.9	3.9	5.2	3.9	3.9
87.5°	2.6	2.6	2.6	2.6	2.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)