

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: P241648

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

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P241648
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-38)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: PRS410D010-S4M12-44SMDMB-3000K
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM 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: 894.0 lumens
Efficiency: N/A
Efficacy: 89.4 lumens/watt
Spacing Criteria (0/90/45): 1 / 1 / 1.06
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')
CIE Type: Direct

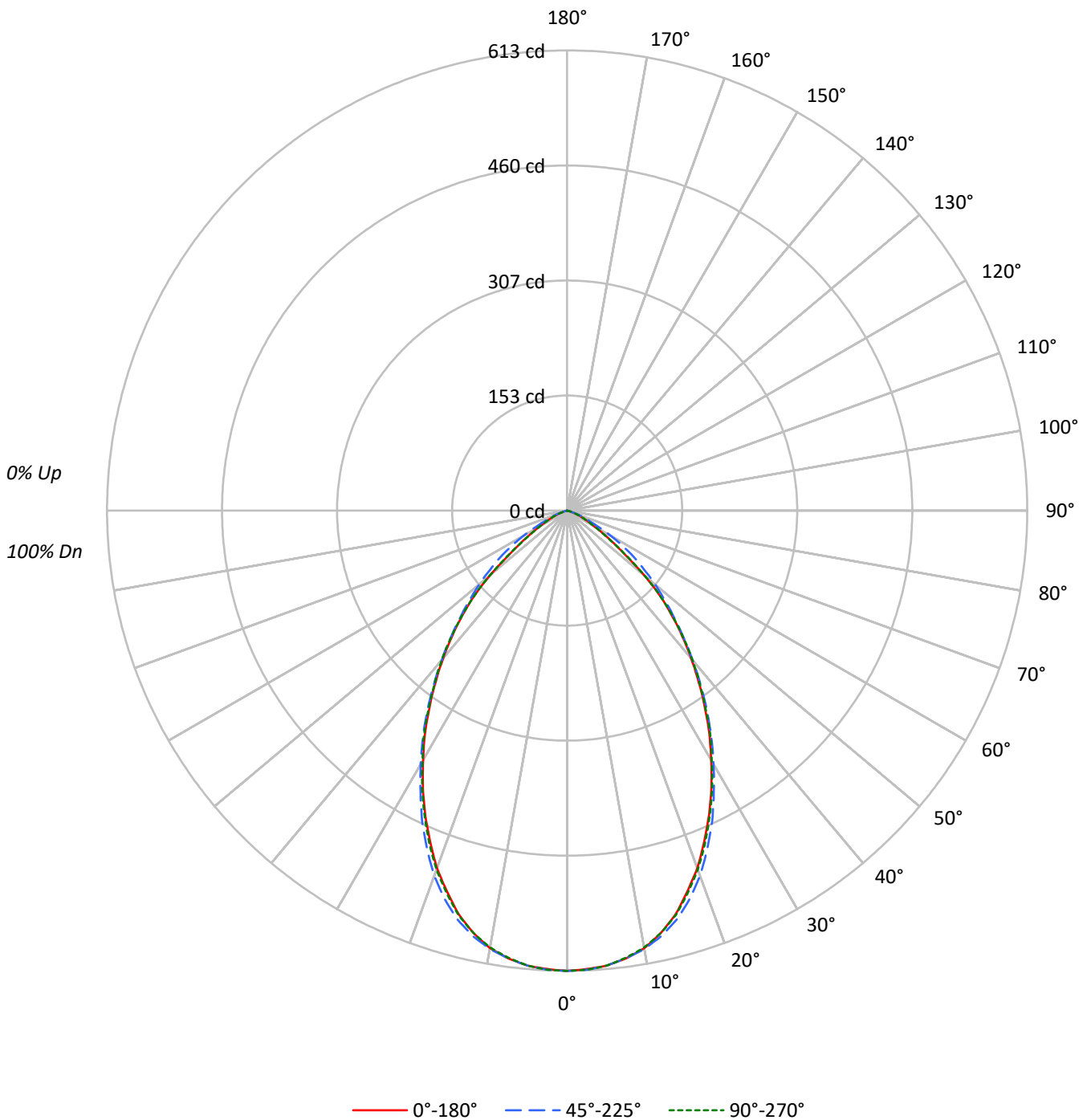
Input Watts (W): 10
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	101	103	100	98	99	97	95	95	94	93	91					91			
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	85	83	81					81			
3	98	90	84	79	96	88	83	78	86	81	77	83	79	76	81	77	74	73					73			
4	91	82	75	70	89	81	74	70	78	73	69	76	72	68	74	70	67	65					65			
5	85	75	68	63	84	74	67	62	72	66	62	70	65	61	69	64	61	59					59			
6	80	69	62	56	78	68	61	56	66	60	56	65	60	55	64	59	55	53					53			
7	75	64	56	51	73	63	56	51	62	55	51	60	55	50	59	54	50	48					48			
8	70	59	52	47	69	58	51	47	57	51	46	56	50	46	55	50	46	44					44			
9	66	55	48	43	65	54	48	43	53	47	43	52	47	43	51	46	42	41					41			
10	63	51	44	40	61	51	44	40	50	44	39	49	43	39	48	43	39	38					38			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	46936	46936	46936
5°	46747	46747	46747
10°	46013	46090	45935
15°	44155	44693	44234
20°	41298	42162	41453
25°	37760	38580	37929
30°	33887	34488	34055
35°	29873	30322	30051
40°	25670	25959	25959
45°	21325	21845	21433
50°	15873	18172	15981
55°	10049	14559	9929
60°	6353	10196	6215
65°	4202	5778	4202
70°	2372	3021	2372
75°	0	858	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.5	6.4
10°-20°	156.8	17.5
20°-30°	207.6	23.2
30°-40°	202.2	22.6
40°-50°	154.8	17.3
50°-60°	82.6	9.2
60°-70°	28.7	3.2
70°-80°	3.7	0.4
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°	422.0	47.2
0°-40°	624.2	69.8
0°-60°	861.6	96.4
0°-90°	894.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	894.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	613	613	613	613	613	
5°	608	608	608	608	608	58
15°	557	561	564	561	558	156
25°	447	454	457	454	449	205
35°	320	324	324	326	322	199
45°	197	201	202	203	198	151
55°	75	87	109	88	74	71
65°	23	28	32	27	23	24
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°	613.2	613.2	613.2	613.2	613.2
2.5°	611.3	611.3	612.3	611.3	612.3
5°	608.4	608.4	608.4	608.4	608.4
7.5°	601.6	601.6	601.6	601.6	600.7
10°	592.0	592.0	593.0	592.0	591.0
12.5°	576.5	578.5	580.4	579.4	576.5
15°	557.2	561.1	564.0	561.1	558.2
17.5°	532.1	536.9	542.7	537.9	534.0
20°	507.0	510.9	517.6	512.8	508.9
22.5°	477.1	482.9	487.7	484.8	480.0
25°	447.1	453.9	456.8	453.9	449.1
27.5°	416.2	421.1	423.0	424.0	418.2
30°	383.4	389.2	390.2	391.1	385.3
32.5°	352.5	357.3	357.3	360.2	355.4
35°	319.7	324.5	324.5	326.4	321.6
37.5°	287.8	292.6	291.6	294.5	289.7
40°	256.9	260.7	259.8	261.7	259.8
42.5°	226.9	230.8	229.8	231.8	228.9
45°	197.0	200.9	201.8	202.8	198.0
47.5°	168.0	172.9	175.8	174.8	168.0
50°	133.3	144.9	152.6	146.8	134.2
52.5°	99.5	115.9	129.4	116.9	101.4
55°	75.3	86.9	109.1	87.9	74.4
57.5°	56.0	65.7	87.9	64.7	55.0
60°	41.5	49.3	66.6	48.3	40.6
62.5°	30.9	36.7	46.4	35.7	30.9
65°	23.2	28.0	31.9	27.0	23.2
67.5°	17.4	20.3	21.2	20.3	16.4
70°	10.6	13.5	13.5	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)