

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: P241838

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

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P241838
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-50)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: PRS410D010-S4M12-41SMDMB-4000K
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM DISTRIBUTION, DEEP TRIM MATTE BLACK
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 675.1 lumens
Efficiency: N/A
Efficacy: 67.5 lumens/watt
Spacing Criteria (0/90/45): 0.95 / 0.95 / 0.98
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')
CIE Type: Direct

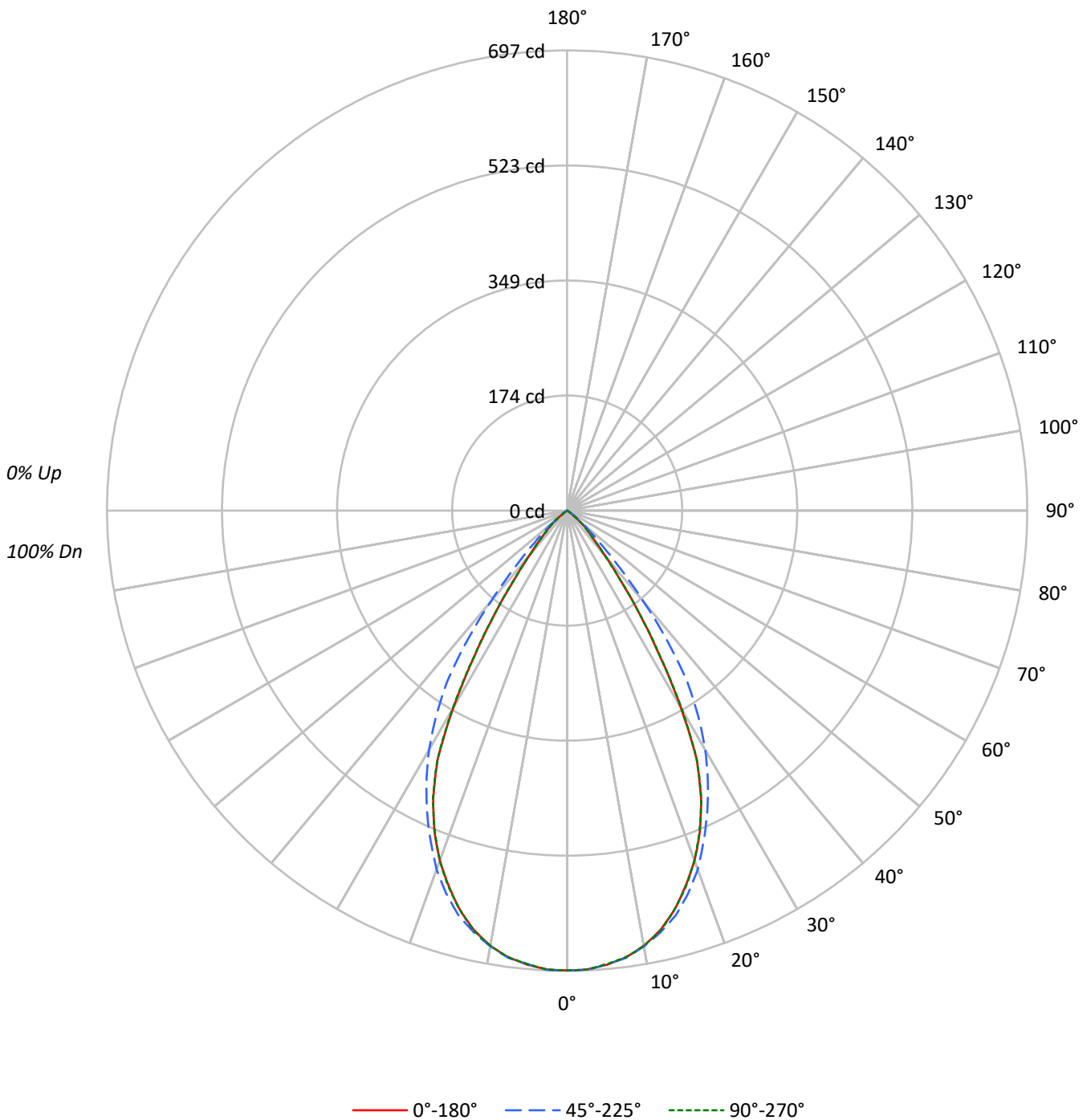
Input Watts (W): 10
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	111	108	106	111	109	106	104	104	103	101	101	99	98	97	96	95	93					93			
2	108	103	99	95	106	101	97	94	98	95	92	95	92	90	92	90	88	87					87			
3	102	96	91	87	100	94	90	86	92	88	85	89	86	83	87	84	82	80					80			
4	97	89	84	79	95	88	83	79	86	82	78	84	80	77	82	79	76	75					75			
5	92	83	77	73	90	82	77	73	81	76	72	79	75	71	77	74	71	69					69			
6	87	78	72	68	86	77	72	67	76	71	67	74	70	66	73	69	66	65					65			
7	83	73	67	63	81	73	67	63	71	66	62	70	65	62	69	65	62	60					60			
8	78	69	63	59	77	68	62	58	67	62	58	66	61	58	65	61	58	56					56			
9	75	65	59	55	74	64	59	55	63	58	54	62	58	54	62	57	54	53					53			
10	71	61	55	51	70	61	55	51	60	55	51	59	54	51	58	54	51	49					49			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	53320	53320	53320
5°	53055	52978	52978
10°	52021	52099	52021
15°	49662	50304	49662
20°	45941	47090	45941
25°	40531	42414	40615
30°	30422	36962	30696
35°	17885	29705	17978
40°	8903	18006	8803
45°	4936	8108	4936
50°	2405	3370	2405
55°	133	1481	133
60°	153	306	153
65°	0	0	0
70°	0	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.3	9.7
10°-20°	176.1	26.1
20°-30°	223.1	33.1
30°-40°	153.0	22.7
40°-50°	49.3	7.3
50°-60°	8.0	1.2
60°-70°	0.2	0.0
70°-80°	0.0	0.0
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°	464.5	68.8
0°-40°	617.5	91.5
0°-60°	674.8	100.0
0°-90°	675.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	675.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	697	697	697	697	697	
5°	690	692	690	692	690	65
15°	627	631	635	631	627	175
25°	480	494	502	493	481	215
35°	191	236	318	238	192	122
45°	46	57	75	56	46	37
55°	1	6	11	6	1	5
65°	0	0	0	0	0	0
75°	0	0	0	0	0	0
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°	696.6	696.6	696.6	696.6	696.6
2.5°	695.6	695.6	696.6	695.6	695.6
5°	690.5	691.5	689.5	691.5	689.5
7.5°	682.4	681.4	683.4	681.4	682.4
10°	669.3	668.2	670.3	668.2	669.3
12.5°	651.0	652.0	654.1	653.1	652.0
15°	626.7	630.8	634.8	630.8	626.7
17.5°	596.4	601.4	608.5	601.4	597.4
20°	564.0	569.0	578.1	570.0	564.0
22.5°	525.5	535.6	540.7	534.6	524.5
25°	479.9	494.1	502.2	493.1	480.9
27.5°	425.2	447.5	461.7	447.5	425.2
30°	344.2	387.8	418.2	387.8	347.3
32.5°	261.2	311.8	369.6	309.8	264.3
35°	191.4	235.9	317.9	237.9	192.4
37.5°	130.6	170.1	251.1	168.1	131.6
40°	89.1	117.4	180.2	116.4	88.1
42.5°	62.8	80.0	119.5	80.0	61.8
45°	45.6	56.7	74.9	55.7	45.6
47.5°	33.4	41.5	46.6	40.5	32.4
50°	20.2	28.3	28.3	28.3	20.2
52.5°	9.1	16.2	17.2	16.2	9.1
55°	1.0	6.1	11.1	6.1	1.0
57.5°	1.0	1.0	6.1	1.0	1.0
60°	1.0	1.0	2.0	1.0	1.0
62.5°	0.0	0.0	1.0	0.0	0.0
65°	0.0	0.0	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	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)