

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: P241827

Luminaire Tested: **PRS440D010-S4M24-41SNDMB-4000K**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P241827
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-49)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: PRS440D010-S4M24-41SNDMB-4000K
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" NARROW 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: 2337.2 lumens
Efficiency: N/A
Efficacy: 61.5 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.85 / 0.89
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')
CIE Type: Direct

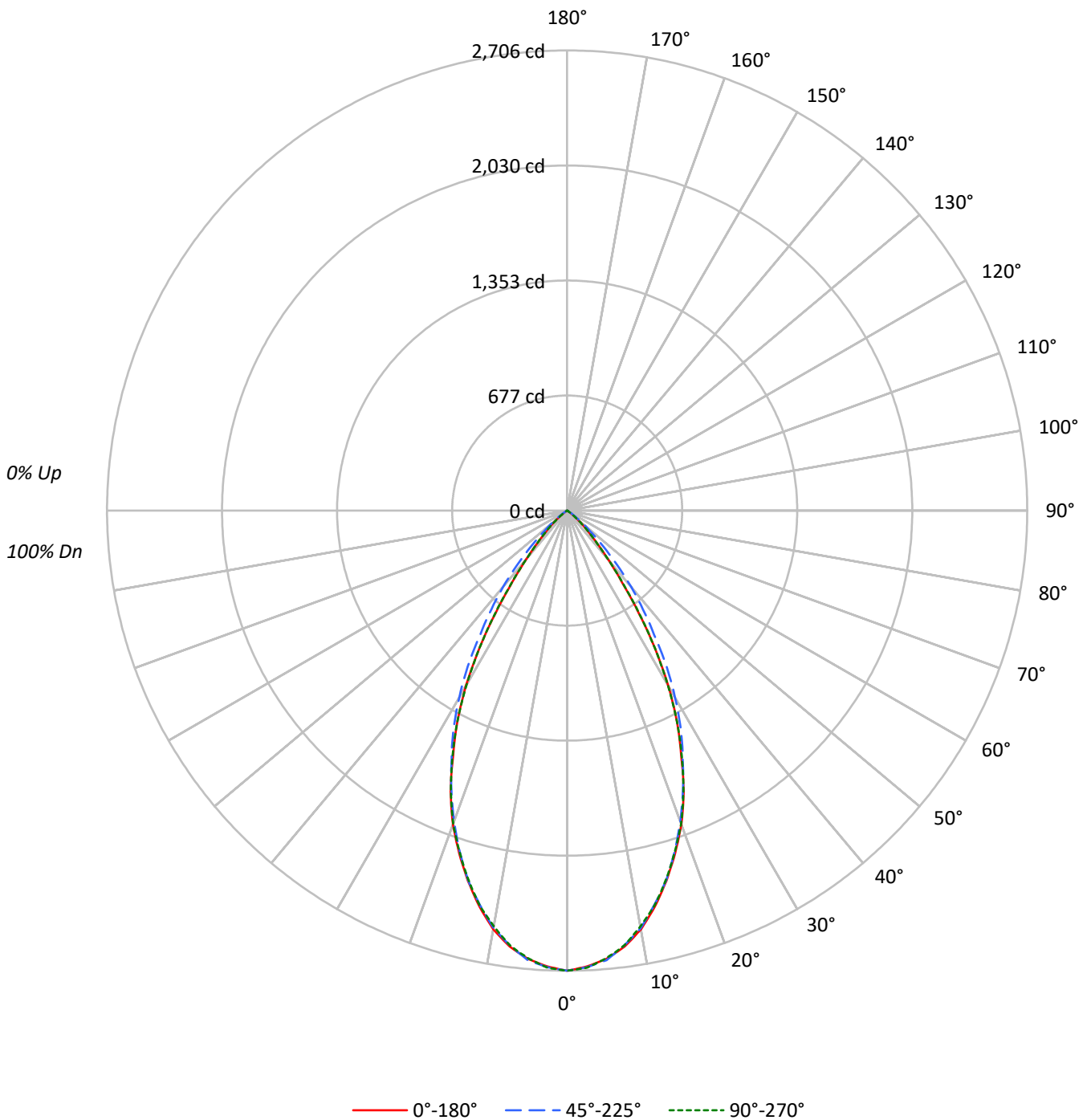
Input Watts (W): 38
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	105	103	101	101	99	98	97	96	95	93					93			
2	108	103	99	95	106	101	98	94	98	95	92	95	93	90	92	90	88	87					87			
3	102	96	91	87	100	94	90	86	92	88	85	89	86	83	87	84	82	81					81			
4	97	89	84	80	95	88	83	79	86	82	78	84	80	77	82	79	76	75					75			
5	92	84	78	73	90	83	77	73	81	76	72	79	75	72	78	74	71	70					70			
6	87	78	72	68	86	78	72	68	76	71	67	75	70	67	73	69	66	65					65			
7	83	74	67	63	82	73	67	63	72	66	63	70	66	62	69	65	62	61					61			
8	79	69	63	59	78	69	63	59	67	62	59	66	62	58	65	61	58	57					57			
9	75	65	59	55	74	65	59	55	64	59	55	63	58	55	62	58	55	53					53			
10	71	62	56	52	70	61	56	52	60	55	52	60	55	51	59	54	51	50					50			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	207111	207111	207111
5°	203315	203884	203023
10°	194349	193766	192896
15°	178631	178338	178036
20°	159906	158383	159604
25°	133956	135848	134902
30°	105222	112151	104568
35°	68353	83350	69054
40°	37660	58543	36921
45°	18586	33124	19387
50°	8443	14671	8443
55°	494	5485	494
60°	0	1148	566
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°	247.7	10.6
10°-20°	627.0	26.8
20°-30°	730.6	31.3
30°-40°	510.5	21.8
40°-50°	190.9	8.2
50°-60°	30.0	1.3
60°-70°	0.5	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°	1605.3	68.7
0°-40°	2115.8	90.5
0°-60°	2336.7	100.0
0°-90°	2337.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2337.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2706	2706	2706	2706	2706	
5°	2646	2650	2654	2642	2642	248
15°	2254	2254	2250	2250	2247	629
25°	1586	1608	1608	1612	1597	725
35°	732	814	892	817	739	461
45°	172	224	306	224	179	146
55°	4	22	41	26	4	17
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°	2705.8	2705.8	2705.8	2705.8	2705.8
2.5°	2683.4	2683.4	2687.1	2687.1	2690.8
5°	2646.1	2649.8	2653.5	2642.3	2642.3
7.5°	2586.3	2582.6	2578.9	2578.9	2578.9
10°	2500.5	2496.8	2493.0	2485.6	2481.8
12.5°	2384.8	2381.1	2373.6	2377.3	2377.3
15°	2254.2	2254.2	2250.5	2250.5	2246.7
17.5°	2112.4	2108.6	2101.2	2104.9	2104.9
20°	1963.1	1955.6	1944.4	1948.2	1959.4
22.5°	1791.4	1795.1	1780.2	1787.7	1787.7
25°	1586.1	1608.5	1608.5	1612.3	1597.3
27.5°	1399.5	1414.5	1448.1	1410.7	1399.5
30°	1190.5	1220.4	1268.9	1216.7	1183.1
32.5°	959.2	1018.9	1089.8	1022.6	959.2
35°	731.5	813.6	892.0	817.3	739.0
37.5°	526.2	619.5	731.5	627.0	533.7
40°	376.9	459.0	585.9	459.0	369.5
42.5°	257.5	321.0	436.7	324.7	257.5
45°	171.7	223.9	306.0	223.9	179.1
47.5°	115.7	153.0	197.8	153.0	115.7
50°	70.9	100.8	123.2	100.8	70.9
52.5°	33.6	56.0	70.9	56.0	33.6
55°	3.7	22.4	41.1	26.1	3.7
57.5°	3.7	3.7	22.4	3.7	3.7
60°	0.0	3.7	7.5	3.7	3.7
62.5°	0.0	0.0	0.0	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)