

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: P241887

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

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P241887
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: PRS440D010-S4M24-41SMDMW-4000K
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM DISTRIBUTION, DEEP TRIM MATTE WHITE
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3412.5 lumens
Efficiency: N/A
Efficacy: 89.8 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

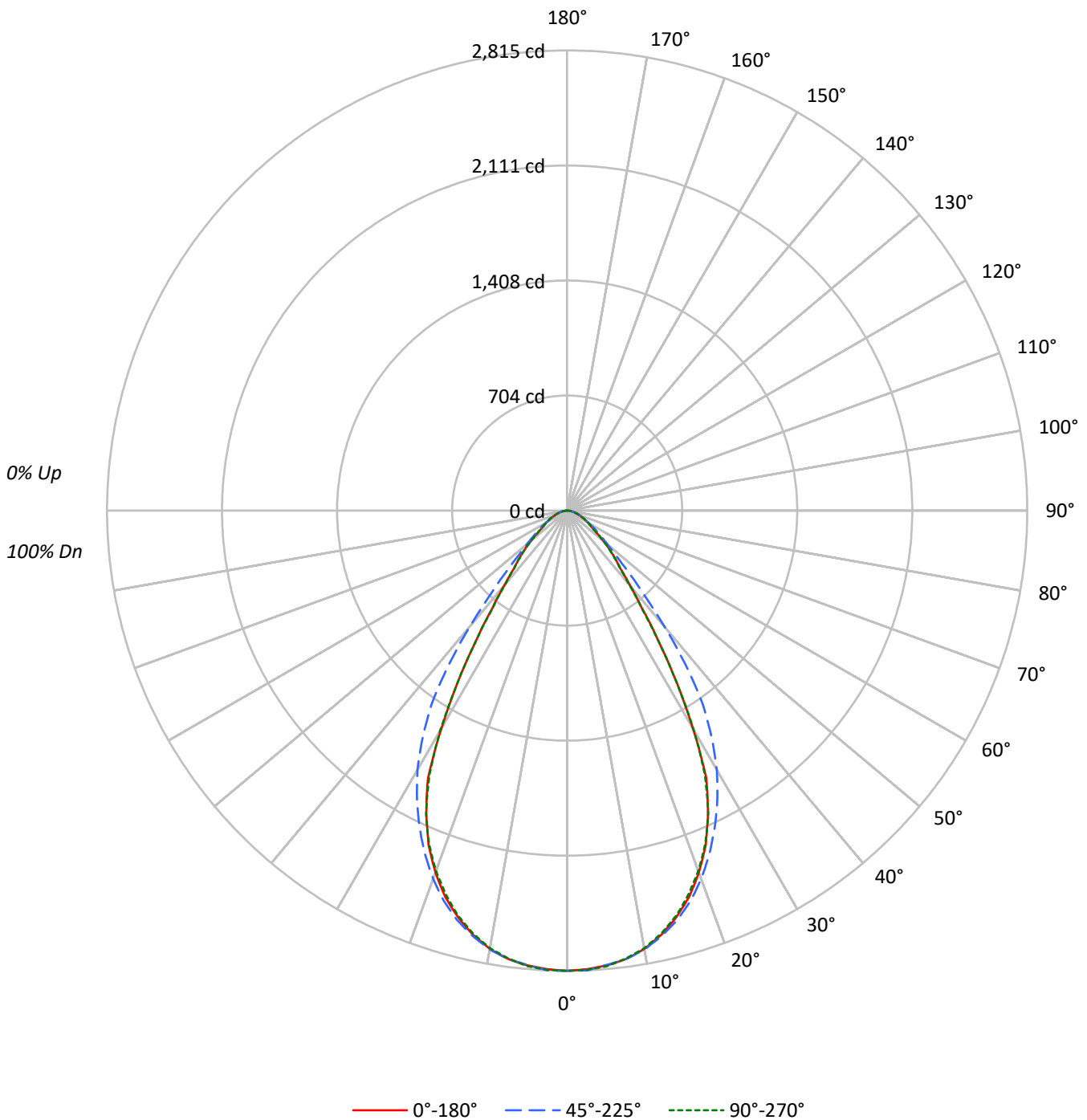
Input Watts (W): 38
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	109	106	103	110	107	104	102	103	100	98	99	97	95	95	94	93	91
2	105	100	95	91	103	98	93	90	94	91	88	91	88	86	89	86	84	82
3	99	91	85	81	97	90	84	80	87	82	79	85	81	77	82	79	76	74
4	93	84	78	73	91	83	77	72	81	75	71	78	74	70	77	73	70	68
5	87	78	71	66	86	77	70	66	75	69	65	73	68	64	71	67	64	62
6	82	72	65	60	81	71	65	60	70	64	60	68	63	59	67	62	59	57
7	78	67	60	55	76	66	60	55	65	59	55	64	58	55	62	58	54	53
8	73	63	56	51	72	62	55	51	61	55	51	60	54	50	59	54	50	49
9	69	59	52	47	68	58	52	47	57	51	47	56	51	47	55	50	47	45
10	66	55	48	44	65	55	48	44	54	48	44	53	48	44	52	47	44	42

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	215500	215500	215500
5°	214602	214310	214887
10°	211565	211861	211278
15°	204163	205645	203569
20°	191918	195266	191006
25°	172181	180382	172494
30°	135971	161709	136961
35°	90714	135024	90714
40°	59692	92526	58953
45°	44869	56181	44458
50°	34676	38237	34236
55°	25409	29399	25409
60°	22289	23438	22289
65°	19615	20285	19615
70°	16718	17546	17546
75°	15467	15467	15467
80°	13180	13180	13180
85°	9836	13086	9836



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	264.4	7.7
10°-20°	723.4	21.2
20°-30°	950.1	27.8
30°-40°	732.7	21.5
40°-50°	368.3	10.8
50°-60°	193.5	5.7
60°-70°	109.3	3.2
70°-80°	55.6	1.6
80°-90°	15.2	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°	1937.9	56.8
0°-40°	2670.6	78.3
0°-60°	3232.4	94.7
0°-90°	3412.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3412.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2815	2815	2815	2815	2815	
5°	2793	2797	2789	2797	2797	264
15°	2576	2584	2595	2580	2569	721
25°	2039	2098	2136	2095	2042	920
35°	971	1135	1445	1139	971	622
45°	414	456	519	452	411	325
55°	190	209	220	209	190	180
65°	108	108	112	108	108	108
75°	52	52	52	52	52	55
85°	11	11	15	11	11	14
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2815.4	2815.4	2815.4	2815.4	2815.4
2.5°	2807.9	2811.6	2815.4	2811.6	2811.6
5°	2793.0	2796.7	2789.2	2796.7	2796.7
7.5°	2766.8	2763.1	2766.8	2763.1	2763.1
10°	2722.0	2722.0	2725.8	2718.3	2718.3
12.5°	2658.5	2662.3	2666.0	2662.3	2651.1
15°	2576.4	2583.9	2595.1	2580.1	2568.9
17.5°	2479.3	2486.8	2505.5	2483.1	2464.4
20°	2356.1	2374.8	2397.2	2374.8	2344.9
22.5°	2214.2	2251.5	2274.0	2244.1	2206.7
25°	2038.7	2098.5	2135.8	2094.7	2042.4
27.5°	1844.6	1919.2	1990.2	1926.7	1825.9
30°	1538.4	1695.2	1829.6	1702.7	1549.6
32.5°	1243.4	1415.2	1646.7	1415.2	1243.4
35°	970.8	1135.1	1445.0	1138.8	970.8
37.5°	750.5	892.4	1191.1	892.4	743.0
40°	597.4	690.8	926.0	687.0	590.0
42.5°	485.4	552.6	687.0	548.9	477.9
45°	414.5	455.5	519.0	451.8	410.7
47.5°	351.0	384.6	395.8	380.9	347.3
50°	291.2	324.9	321.1	321.1	287.5
52.5°	235.2	261.4	265.1	261.4	235.2
55°	190.4	209.1	220.3	209.1	190.4
57.5°	164.3	171.8	186.7	171.8	168.0
60°	145.6	149.4	153.1	149.4	145.6
62.5°	127.0	127.0	127.0	127.0	127.0
65°	108.3	108.3	112.0	108.3	108.3
67.5°	89.6	93.3	93.3	93.3	89.6
70°	74.7	78.4	78.4	78.4	78.4
72.5°	63.5	63.5	63.5	63.5	63.5
75°	52.3	52.3	52.3	52.3	52.3
77.5°	41.1	41.1	41.1	41.1	41.1
80°	29.9	29.9	29.9	29.9	29.9
82.5°	18.7	22.4	22.4	22.4	18.7
85°	11.2	11.2	14.9	11.2	11.2
87.5°	7.5	7.5	7.5	7.5	7.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)