

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: P241967

Luminaire Tested: **PRS440D010-S4M24-41SMDC-3000K**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P241967
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-59)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: PRS440D010-S4M24-41SMDC-3000K
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM DISTRIBUTION, DEEP TRIM SPECULAR
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3322.5 lumens
Efficiency: N/A
Efficacy: 87.4 lumens/watt
Spacing Criteria (0/90/45): 0.82 / 0.82 / 0.85
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')
CIE Type: Direct

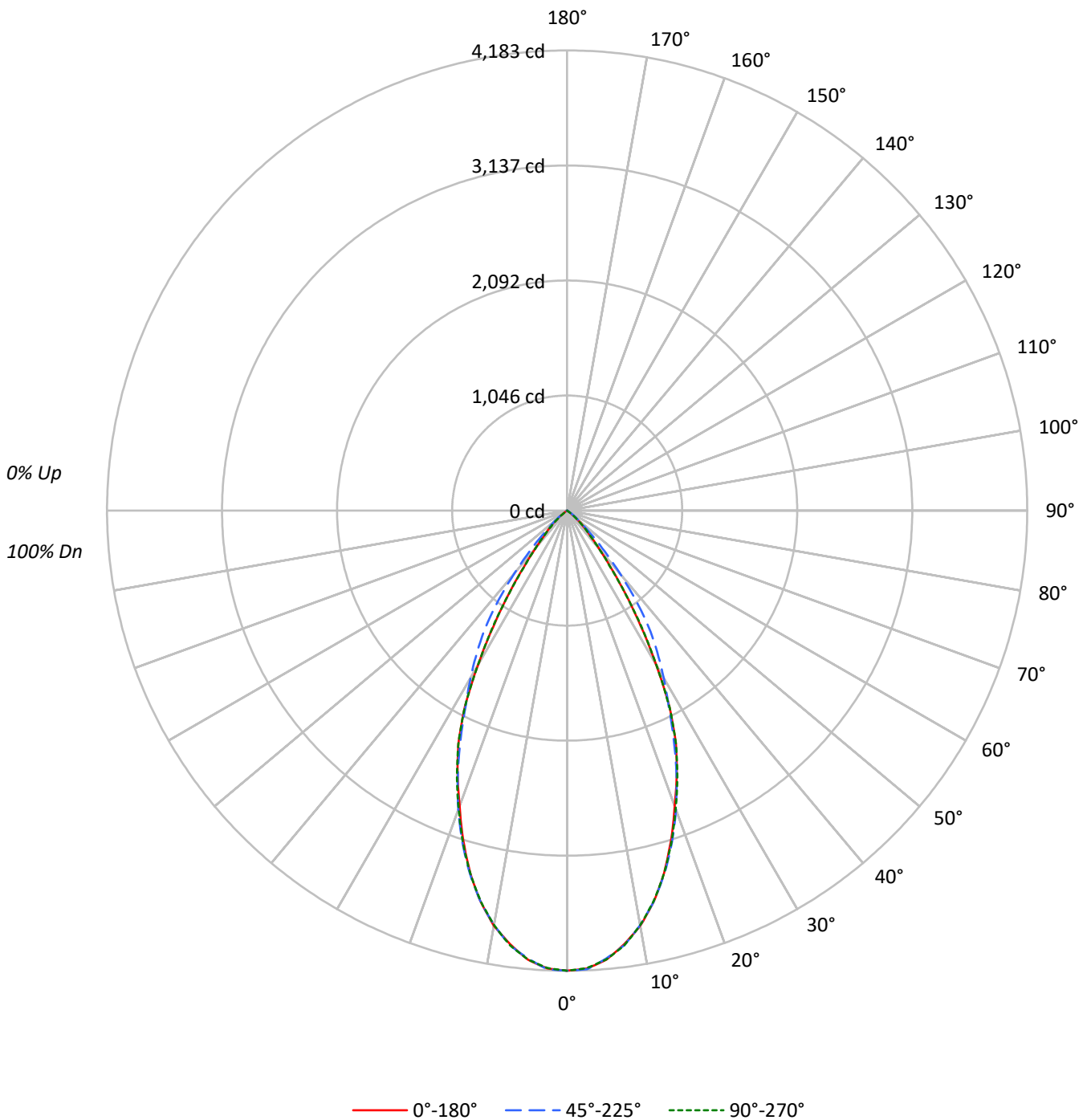
Input Watts (W): 38
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	114	111	108	106	111	109	107	105	105	103	101	101	100	98	98	96	95	94					94			
2	108	103	99	96	106	102	98	95	98	95	93	95	93	91	93	91	89	87					87			
3	103	96	92	88	101	95	91	87	92	89	86	90	87	84	88	85	83	81					81			
4	98	90	85	81	96	89	84	80	87	83	79	85	81	78	83	80	77	76					76			
5	93	85	79	75	91	84	78	74	82	77	74	80	76	73	79	75	72	71					71			
6	88	79	73	69	87	79	73	69	77	72	69	76	71	68	74	71	68	66					66			
7	84	75	69	65	83	74	68	64	73	68	64	72	67	64	70	66	63	62					62			
8	80	70	65	61	79	70	64	60	69	64	60	68	63	60	67	63	60	58					58			
9	76	67	61	57	75	66	61	57	65	60	57	64	60	56	63	59	56	55					55			
10	73	63	57	54	72	63	57	53	62	57	53	61	56	53	60	56	53	52					52			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	320181	320181	320181
5°	314888	314074	314619
10°	297932	297388	297388
15°	270165	270720	270165
20°	232809	235692	234829
25°	197526	193346	197526
30°	143634	154877	143325
35°	86163	120494	85836
40°	44834	74131	44475
45°	24475	35181	23706
50°	10943	14730	10515
55°	947	6125	467
60°	536	1623	536
65°	0	634	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°	382.4	11.5
10°-20°	947.0	28.5
20°-30°	1055.6	31.8
30°-40°	679.5	20.5
40°-50°	221.6	6.7
50°-60°	34.7	1.0
60°-70°	1.7	0.1
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°	2385.0	71.8
0°-40°	3064.5	92.2
0°-60°	3320.8	99.9
0°-90°	3322.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3322.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4183	4183	4183	4183	4183	
5°	4098	4098	4088	4102	4095	382
15°	3409	3409	3416	3416	3409	945
25°	2339	2335	2289	2335	2339	1048
35°	922	1063	1290	1060	919	590
45°	226	258	325	251	219	183
55°	7	28	46	28	4	22
65°	0	0	4	0	0	1
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°	4183.0	4183.0	4183.0	4183.0	4183.0
2.5°	4165.3	4168.9	4172.4	4168.9	4161.8
5°	4098.2	4098.2	4087.6	4101.7	4094.7
7.5°	3974.5	3978.1	3985.1	3978.1	3985.1
10°	3833.2	3826.2	3826.2	3826.2	3826.2
12.5°	3638.9	3635.4	3638.9	3635.4	3635.4
15°	3409.3	3409.3	3416.3	3416.3	3409.3
17.5°	3140.8	3147.8	3165.5	3162.0	3154.9
20°	2858.1	2872.3	2893.5	2875.8	2882.9
22.5°	2603.8	2589.6	2596.7	2589.6	2617.9
25°	2338.8	2335.3	2289.3	2335.3	2338.8
27.5°	2013.8	2063.2	1996.1	2066.8	2013.8
30°	1625.1	1748.8	1752.3	1762.9	1621.6
32.5°	1247.1	1392.0	1522.7	1399.0	1261.3
35°	922.1	1063.4	1289.5	1059.9	918.6
37.5°	643.0	770.2	1021.0	766.6	635.9
40°	448.7	533.5	741.9	537.0	445.1
42.5°	314.4	371.0	505.2	360.4	310.9
45°	226.1	257.9	325.0	250.8	219.0
47.5°	155.4	180.2	201.4	176.6	151.9
50°	91.9	120.1	123.7	120.1	88.3
52.5°	42.4	67.1	77.7	67.1	42.4
55°	7.1	28.3	45.9	28.3	3.5
57.5°	3.5	3.5	24.7	3.5	3.5
60°	3.5	3.5	10.6	3.5	3.5
62.5°	3.5	3.5	3.5	3.5	3.5
65°	0.0	0.0	3.5	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)