

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: P241972

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

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P241972  
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  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM DISTRIBUTION, DEEP TRIM SPECULAR  
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3690.1 lumens  
Efficiency: N/A  
Efficacy: 97.1 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

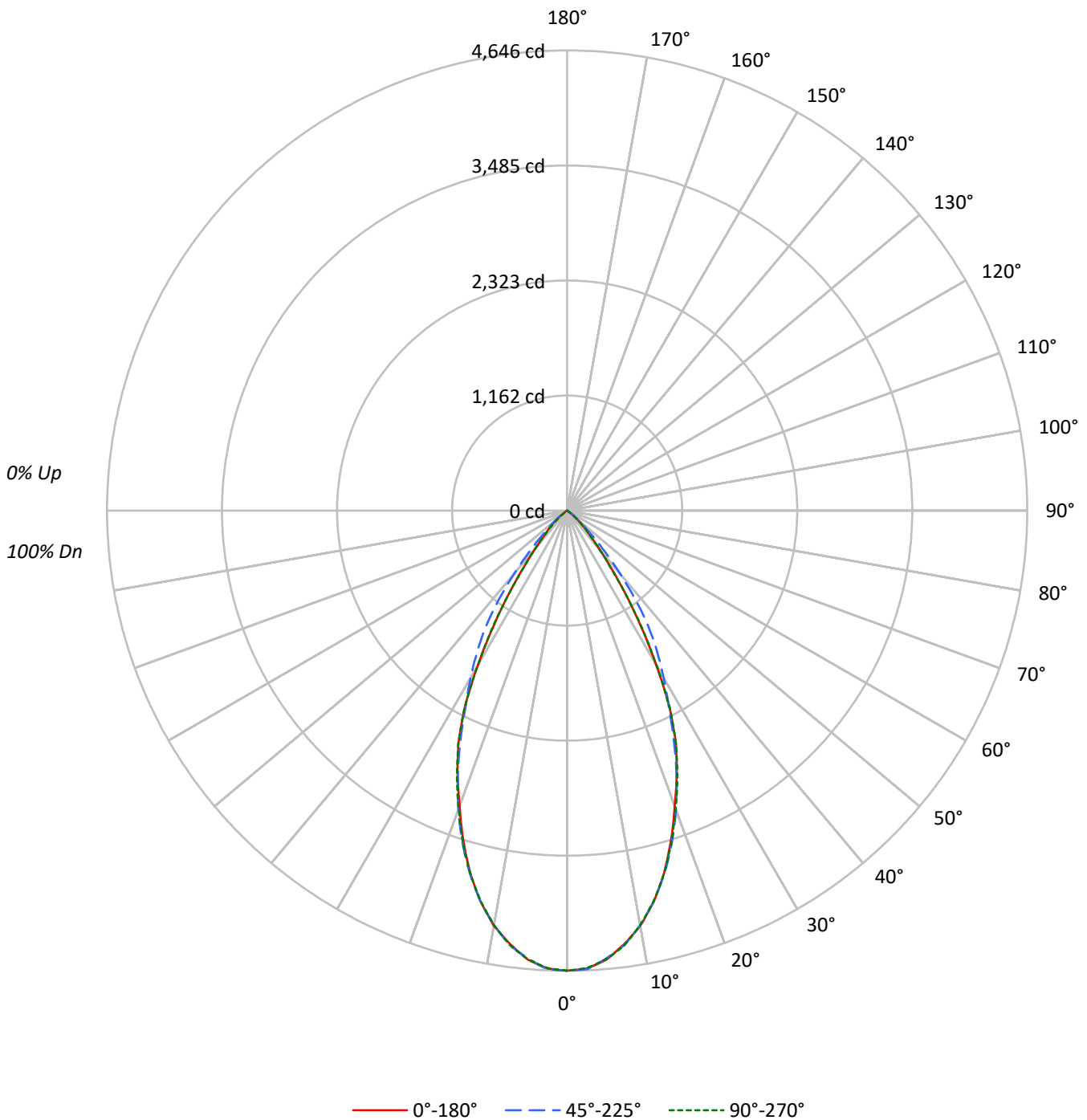
Input Watts (W): 38  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	355598	355598	355598
5°	349718	348819	349418
10°	330895	330281	330281
15°	300048	300674	300048
20°	258565	261766	260805
25°	219375	214739	219375
30°	159526	172014	159181
35°	95694	133828	95330
40°	49790	82334	49401
45°	27181	39078	26337
50°	12146	16350	11682
55°	1041	6806	520
60°	597	1806	597
65°	0	706	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°	424.7	11.5
10°-20°	1051.8	28.5
20°-30°	1172.4	31.8
30°-40°	754.7	20.5
40°-50°	246.1	6.7
50°-60°	38.5	1.0
60°-70°	1.9	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°	2648.9	71.8
0°-40°	3403.6	92.2
0°-60°	3688.2	99.9
0°-90°	3690.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3690.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4646	4646	4646	4646	4646	
5°	4552	4552	4540	4556	4548	425
15°	3786	3786	3794	3794	3786	1049
25°	2598	2594	2543	2594	2598	1164
35°	1024	1181	1432	1177	1020	655
45°	251	286	361	279	243	204
55°	8	31	51	31	4	24
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°	4645.7	4645.7	4645.7	4645.7	4645.7
2.5°	4626.1	4630.0	4633.9	4630.0	4622.2
5°	4551.5	4551.5	4539.8	4555.5	4547.6
7.5°	4414.2	4418.1	4426.0	4418.1	4426.0
10°	4257.3	4249.4	4249.4	4249.4	4249.4
12.5°	4041.5	4037.5	4041.5	4037.5	4037.5
15°	3786.4	3786.4	3794.3	3794.3	3786.4
17.5°	3488.2	3496.1	3515.7	3511.8	3503.9
20°	3174.3	3190.0	3213.6	3193.9	3201.8
22.5°	2891.8	2876.1	2884.0	2876.1	2907.5
25°	2597.5	2593.6	2542.6	2593.6	2597.5
27.5°	2236.5	2291.5	2216.9	2295.4	2236.5
30°	1804.9	1942.3	1946.2	1958.0	1801.0
32.5°	1385.1	1546.0	1691.1	1553.8	1400.8
35°	1024.1	1181.0	1432.2	1177.1	1020.2
37.5°	714.1	855.4	1134.0	851.5	706.3
40°	498.3	592.5	824.0	596.4	494.4
42.5°	349.2	412.0	561.1	400.2	345.3
45°	251.1	286.4	361.0	278.6	243.3
47.5°	172.6	200.1	223.7	196.2	168.7
50°	102.0	133.4	137.3	133.4	98.1
52.5°	47.1	74.6	86.3	74.6	47.1
55°	7.8	31.4	51.0	31.4	3.9
57.5°	3.9	3.9	27.5	3.9	3.9
60°	3.9	3.9	11.8	3.9	3.9
62.5°	3.9	3.9	3.9	3.9	3.9
65°	0.0	0.0	3.9	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)