

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: P252985

Luminaire Tested: **PRS420D010-S4M12-41SWDMB-4000K**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P252985
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1805-776-2)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: PRS420D010-S4M12-41SWDMB-4000K
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" WIDE 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: 1216.8 lumens
Efficiency: N/A
Efficacy: 60.8 lumens/watt
Spacing Criteria (0/90/45): 1.11 / 1.1 / 1.15
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')
CIE Type: Direct

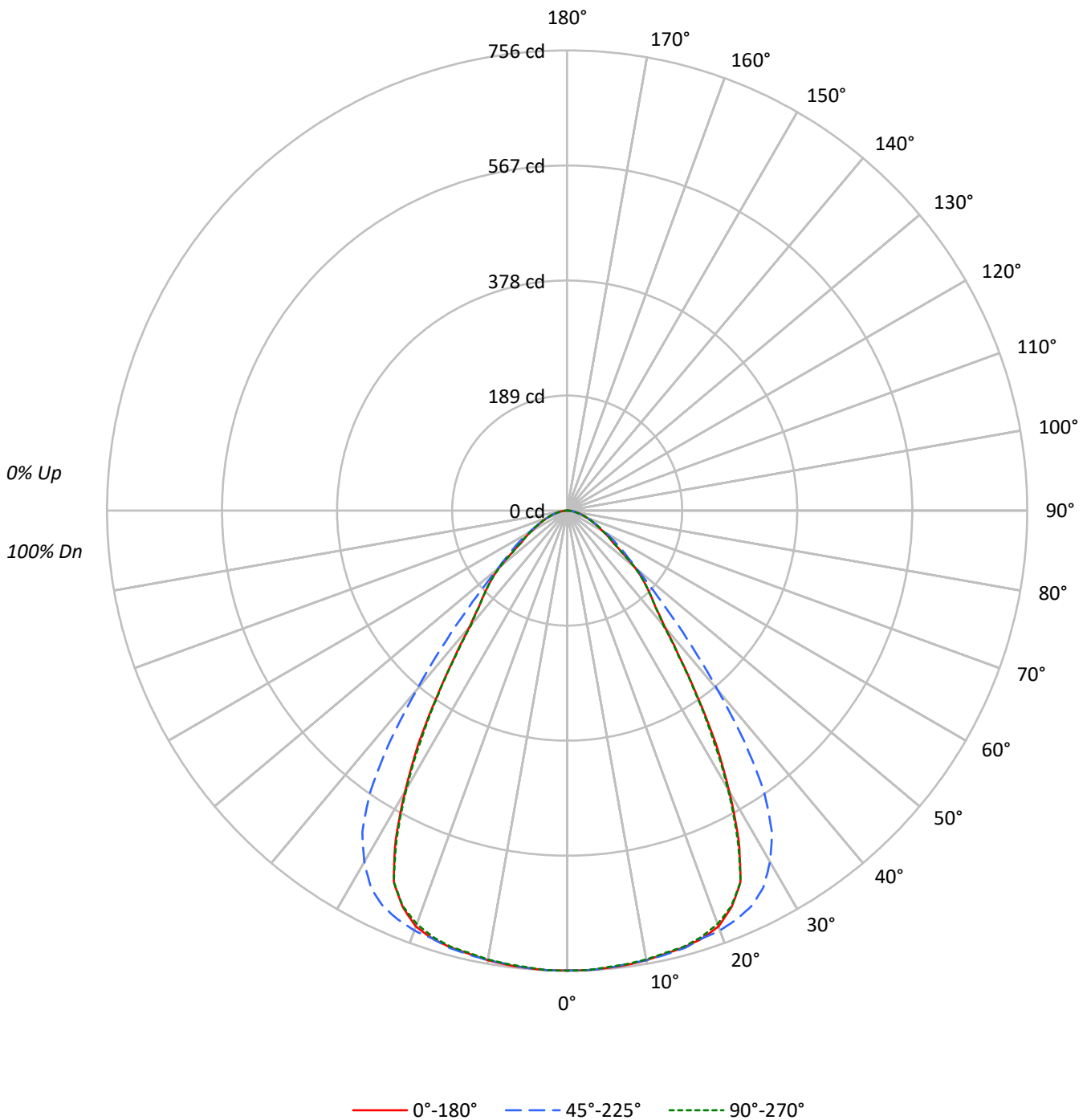
Input Watts (W): 20
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	112	108	105	102	109	106	103	100	102	99	97	98	96	94	95	93	92	90					90			
2	104	98	93	88	102	96	91	87	93	89	86	90	86	84	87	84	82	80					80			
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	76	73	72					72			
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64					64			
5	85	75	67	62	83	74	67	62	72	66	61	70	65	60	68	64	60	58					58			
6	80	69	61	56	78	68	61	56	66	60	55	65	59	55	63	58	55	53					53			
7	75	63	56	51	73	63	56	51	61	55	51	60	54	50	59	54	50	48					48			
8	70	59	52	47	69	58	51	47	57	51	46	56	50	46	55	50	46	44					44			
9	66	55	48	43	65	54	47	43	53	47	43	52	47	42	51	46	42	41					41			
10	63	51	44	40	61	51	44	40	50	44	39	49	43	39	48	43	39	38					38			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	57851	57851	57851
5°	57957	57957	57850
10°	58293	58293	58184
15°	58862	58981	58751
20°	59218	59805	58868
25°	56898	60547	56898
30°	47074	58908	46694
35°	34835	52729	34574
40°	24880	38409	24600
45°	20730	25558	20730
50°	17314	17826	17314
55°	12291	14212	12491
60°	10364	11237	10364
65°	8857	9128	8857
70°	7721	7721	7721
75°	6802	6802	6802
80°	5730	5730	5730
85°	5094	5094	5094



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.8	5.9
10°-20°	209.9	17.2
20°-30°	313.6	25.8
30°-40°	279.2	22.9
40°-50°	166.1	13.7
50°-60°	94.1	7.7
60°-70°	50.4	4.1
70°-80°	24.7	2.0
80°-90°	6.9	0.6
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°	595.3	48.9
0°-40°	874.5	71.9
0°-60°	1134.7	93.3
0°-90°	1216.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1216.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	756	756	756	756	756	
5°	754	754	754	754	753	72
15°	743	743	744	741	741	210
25°	674	692	717	691	674	300
35°	373	436	564	435	370	235
45°	192	206	236	204	192	149
55°	92	102	106	102	94	88
65°	49	50	50	50	49	49
75°	23	23	23	23	23	25
85°	6	6	6	6	6	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	755.8	755.8	755.8	755.8	755.8
2.5°	755.8	755.8	755.8	755.8	755.8
5°	754.3	754.3	754.3	754.3	752.9
7.5°	752.9	751.5	751.5	751.5	751.5
10°	750.0	750.0	750.0	748.6	748.6
12.5°	745.7	745.7	747.1	745.7	744.3
15°	742.8	742.8	744.3	741.4	741.4
17.5°	737.1	738.5	737.1	737.1	734.2
20°	727.0	731.3	734.2	729.9	722.7
22.5°	705.4	716.9	727.0	715.5	703.9
25°	673.7	692.4	716.9	691.0	673.7
27.5°	610.4	657.9	698.2	653.6	606.1
30°	532.6	590.2	666.5	585.9	528.3
32.5°	454.9	512.5	626.2	509.6	447.7
35°	372.8	436.2	564.3	434.8	370.0
37.5°	303.7	361.3	477.9	358.5	300.9
40°	249.0	293.7	384.4	292.2	246.2
42.5°	214.5	239.0	303.7	237.5	214.5
45°	191.5	205.9	236.1	204.4	191.5
47.5°	169.9	181.4	185.7	179.9	169.9
50°	145.4	158.4	149.7	158.4	145.4
52.5°	115.2	131.0	125.2	132.4	113.7
55°	92.1	102.2	106.5	102.2	93.6
57.5°	80.6	83.5	89.3	83.5	80.6
60°	67.7	70.5	73.4	70.5	67.7
62.5°	57.6	60.5	60.5	60.5	59.0
65°	48.9	50.4	50.4	50.4	48.9
67.5°	41.7	41.7	41.7	41.7	41.7
70°	34.5	34.5	34.5	34.5	34.5
72.5°	28.8	28.8	28.8	28.8	28.8
75°	23.0	23.0	23.0	23.0	23.0
77.5°	18.7	18.7	17.3	18.7	17.3
80°	13.0	13.0	13.0	13.0	13.0
82.5°	10.1	10.1	10.1	10.1	10.1
85°	5.8	5.8	5.8	5.8	5.8
87.5°	2.9	2.9	2.9	2.9	2.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)