

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: P252975

Luminaire Tested: **PRS420D010-S4M12-41SWDMB-3000K**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P252975
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-3000K
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, DEEP TRIM MATTE BLACK
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1160.6 lumens
Efficiency: N/A
Efficacy: 58.0 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

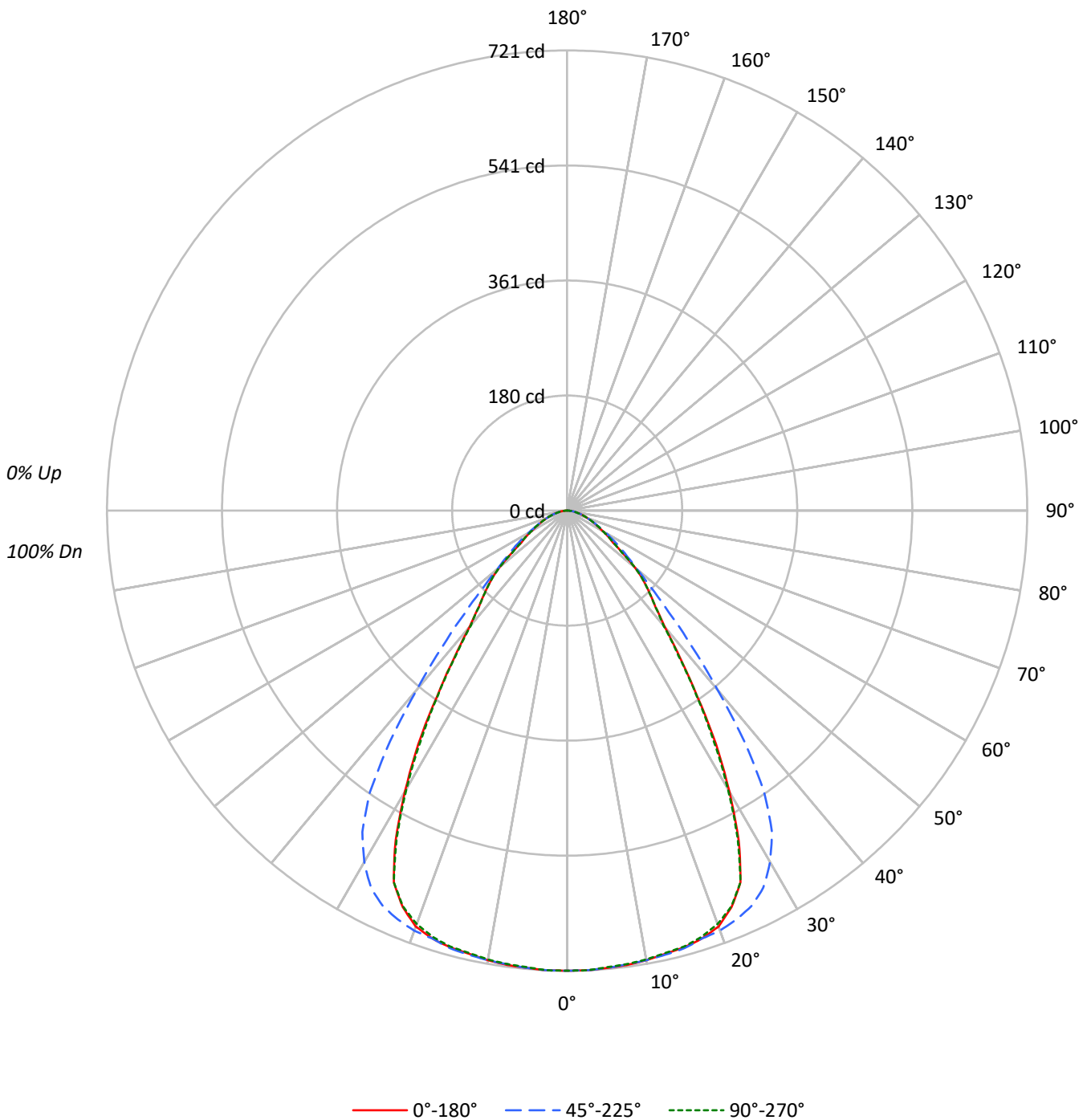
Input Watts (W): 20
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	55180	55180	55180
5°	55283	55283	55176
10°	55604	55604	55495
15°	56144	56255	56041
20°	56481	57043	56147
25°	54272	57751	54272
30°	44908	56195	44537
35°	33228	50300	32976
40°	23741	36631	23461
45°	19766	24378	19766
50°	16516	17005	16516
55°	11730	13558	11917
60°	9874	10716	9874
65°	8458	8712	8458
70°	7385	7385	7385
75°	6506	6506	6506
80°	5466	5466	5466
85°	4830	4830	4830



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.5	5.9
10°-20°	200.2	17.2
20°-30°	299.2	25.8
30°-40°	266.3	22.9
40°-50°	158.5	13.7
50°-60°	89.7	7.7
60°-70°	48.1	4.1
70°-80°	23.6	2.0
80°-90°	6.5	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°	567.8	48.9
0°-40°	834.1	71.9
0°-60°	1082.3	93.3
0°-90°	1160.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1160.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	721	721	721	721	721	
5°	720	720	720	720	718	69
15°	708	708	710	707	707	200
25°	643	660	684	659	643	287
35°	356	416	538	415	353	225
45°	183	196	225	195	183	142
55°	88	98	102	98	89	84
65°	47	48	48	48	47	47
75°	22	22	22	22	22	24
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°	720.9	720.9	720.9	720.9	720.9
2.5°	720.9	720.9	720.9	720.9	720.9
5°	719.5	719.5	719.5	719.5	718.1
7.5°	718.1	716.8	716.8	716.8	716.8
10°	715.4	715.4	715.4	714.0	714.0
12.5°	711.3	711.3	712.7	711.3	709.9
15°	708.5	708.5	709.9	707.2	707.2
17.5°	703.0	704.4	703.0	703.0	700.3
20°	693.4	697.5	700.3	696.2	689.3
22.5°	672.8	683.8	693.4	682.4	671.5
25°	642.6	660.5	683.8	659.1	642.6
27.5°	582.2	627.5	666.0	623.4	578.1
30°	508.1	563.0	635.8	558.9	503.9
32.5°	433.9	488.8	597.3	486.1	427.0
35°	355.6	416.1	538.3	414.7	352.9
37.5°	289.7	344.7	455.9	341.9	287.0
40°	237.6	280.1	366.6	278.7	234.8
42.5°	204.6	227.9	289.7	226.6	204.6
45°	182.6	196.4	225.2	195.0	182.6
47.5°	162.0	173.0	177.1	171.6	162.0
50°	138.7	151.0	142.8	151.0	138.7
52.5°	109.9	125.0	119.5	126.3	108.5
55°	87.9	97.5	101.6	97.5	89.3
57.5°	76.9	79.6	85.1	79.6	76.9
60°	64.5	67.3	70.0	67.3	64.5
62.5°	54.9	57.7	57.7	57.7	56.3
65°	46.7	48.1	48.1	48.1	46.7
67.5°	39.8	39.8	39.8	39.8	39.8
70°	33.0	33.0	33.0	33.0	33.0
72.5°	27.5	27.5	27.5	27.5	27.5
75°	22.0	22.0	22.0	22.0	22.0
77.5°	17.9	17.9	16.5	17.9	16.5
80°	12.4	12.4	12.4	12.4	12.4
82.5°	9.6	9.6	9.6	9.6	9.6
85°	5.5	5.5	5.5	5.5	5.5
87.5°	2.7	2.7	2.7	2.7	2.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)