

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: P252960

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

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P252960
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-S4M12-41SWDMW-3000K
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, DEEP TRIM MATTE WHITE
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1767.0 lumens
Efficiency: N/A
Efficacy: 88.3 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

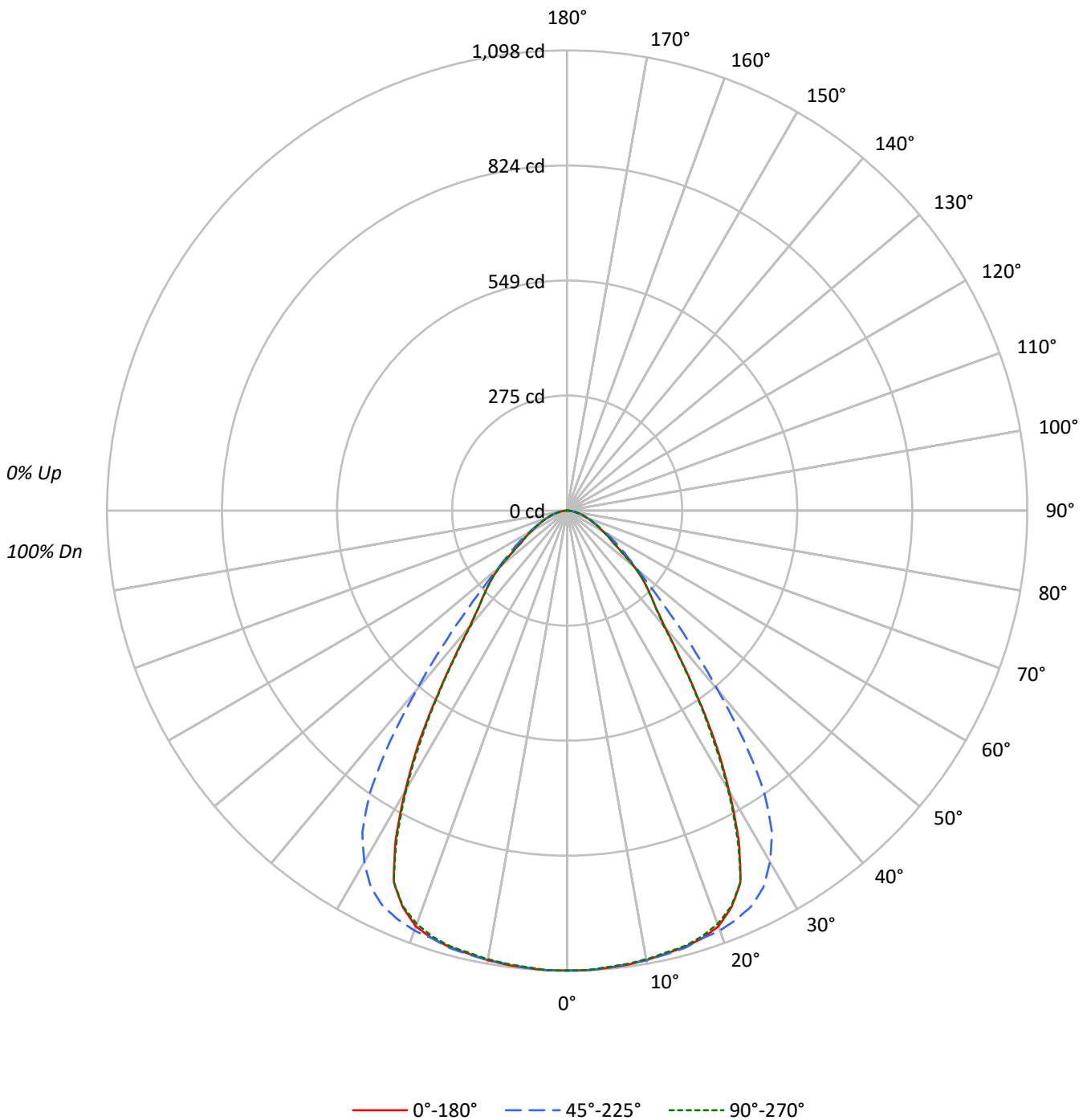
Input Watts (W): 20
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	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°	84014	84014	84014
5°	84174	84174	84012
10°	84657	84657	84494
15°	85480	85646	85314
20°	85993	86848	85488
25°	82632	87927	82632
30°	68366	85548	67809
35°	50599	76576	50207
40°	36141	55776	35722
45°	30093	37118	30093
50°	25138	25888	25138
55°	17856	20645	18136
60°	15048	16319	15048
65°	12877	13258	12877
70°	11235	11235	11235
75°	9878	9878	9878
80°	8287	8287	8287
85°	7377	7377	7377



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.3	5.9
10°-20°	304.8	17.2
20°-30°	455.5	25.8
30°-40°	405.4	22.9
40°-50°	241.3	13.7
50°-60°	136.6	7.7
60°-70°	73.3	4.1
70°-80°	35.9	2.0
80°-90°	10.0	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°	864.5	48.9
0°-40°	1270.0	71.9
0°-60°	1647.9	93.3
0°-90°	1767.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1767.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1098	1098	1098	1098	1098	
5°	1096	1096	1096	1096	1093	104
15°	1079	1079	1081	1077	1077	305
25°	978	1006	1041	1004	978	436
35°	542	633	820	631	537	342
45°	278	299	343	297	278	216
55°	134	148	155	148	136	128
65°	71	73	73	73	71	72
75°	33	33	33	33	33	36
85°	8	8	8	8	8	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1097.6	1097.6	1097.6	1097.6	1097.6
2.5°	1097.6	1097.6	1097.6	1097.6	1097.6
5°	1095.5	1095.5	1095.5	1095.5	1093.4
7.5°	1093.4	1091.3	1091.3	1091.3	1091.3
10°	1089.2	1089.2	1089.2	1087.1	1087.1
12.5°	1082.9	1082.9	1085.0	1082.9	1080.8
15°	1078.7	1078.7	1080.8	1076.6	1076.6
17.5°	1070.4	1072.5	1070.4	1070.4	1066.2
20°	1055.7	1062.0	1066.2	1059.9	1049.5
22.5°	1024.4	1041.1	1055.7	1039.0	1022.3
25°	978.4	1005.6	1041.1	1003.5	978.4
27.5°	886.4	955.4	1013.9	949.1	880.1
30°	773.5	857.1	967.9	850.9	767.2
32.5°	660.6	744.2	909.4	740.1	650.2
35°	541.5	633.4	819.5	631.4	537.3
37.5°	441.1	524.7	694.1	520.6	436.9
40°	361.7	426.5	558.2	424.4	357.5
42.5°	311.5	347.0	441.1	344.9	311.5
45°	278.0	299.0	342.9	296.9	278.0
47.5°	246.7	263.4	269.7	261.3	246.7
50°	211.1	230.0	217.4	230.0	211.1
52.5°	167.2	190.2	181.9	192.3	165.2
55°	133.8	148.4	154.7	148.4	135.9
57.5°	117.1	121.3	129.6	121.3	117.1
60°	98.3	102.4	106.6	102.4	98.3
62.5°	83.6	87.8	87.8	87.8	85.7
65°	71.1	73.2	73.2	73.2	71.1
67.5°	60.6	60.6	60.6	60.6	60.6
70°	50.2	50.2	50.2	50.2	50.2
72.5°	41.8	41.8	41.8	41.8	41.8
75°	33.4	33.4	33.4	33.4	33.4
77.5°	27.2	27.2	25.1	27.2	25.1
80°	18.8	18.8	18.8	18.8	18.8
82.5°	14.6	14.6	14.6	14.6	14.6
85°	8.4	8.4	8.4	8.4	8.4
87.5°	4.2	4.2	4.2	4.2	4.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)