

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: P252880

Luminaire Tested: **PRS420D010-S4M12-44SWDC-4000K**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P252880
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1804-748-2)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: PRS420D010-S4M12-44SWDC-4000K
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, SHALLOW TRIM SPECULAR
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2105.1 lumens
Efficiency: N/A
Efficacy: 105.3 lumens/watt
Spacing Criteria (0/90/45): 1.29 / 1.29 / 1.41
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')
CIE Type: Direct

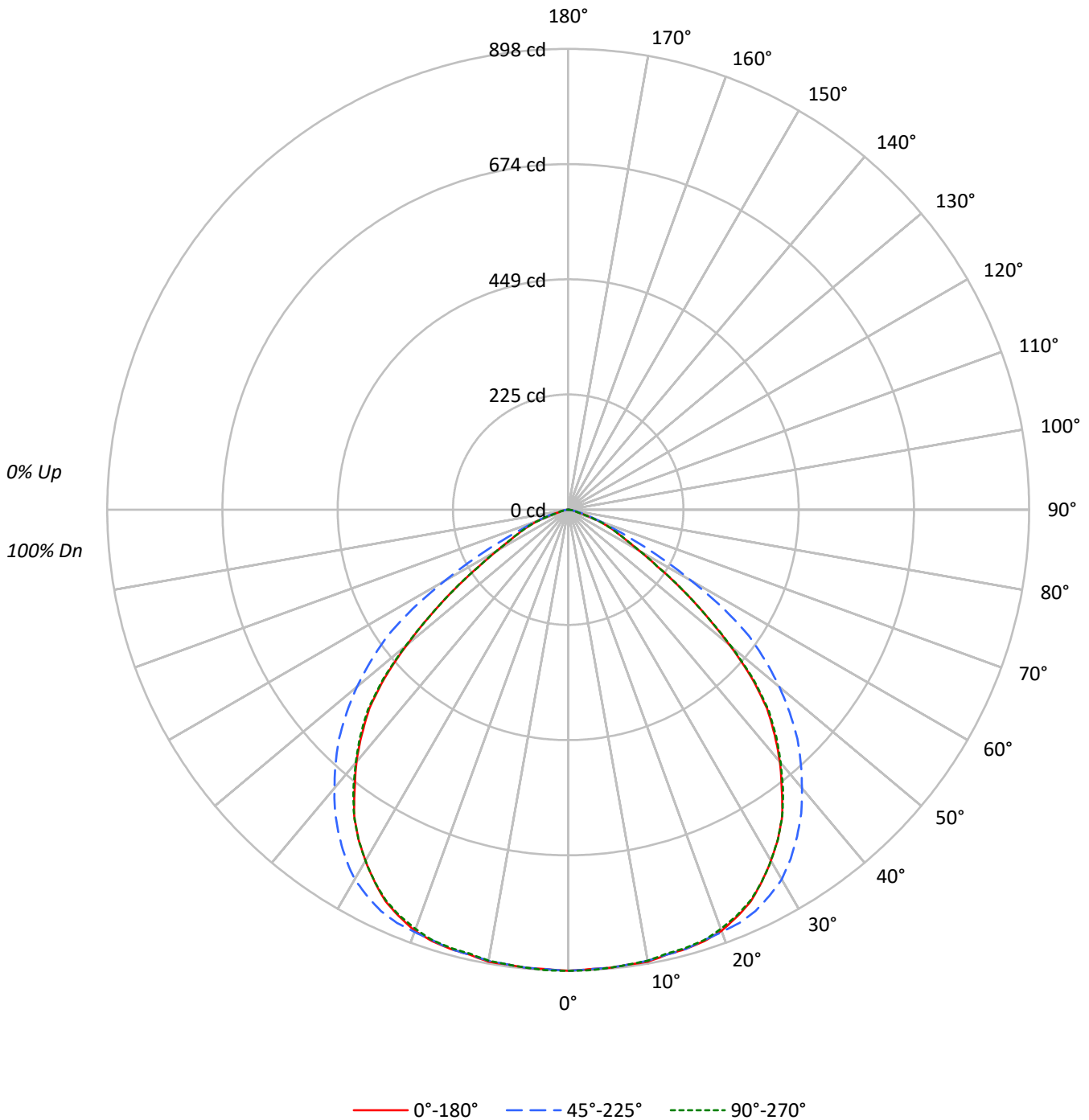
Input Watts (W): 20
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90	88
2	103	96	90	85	100	94	89	84	91	86	82	87	84	81	85	82	79	77
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	61	59
5	81	69	61	55	79	68	61	55	66	60	55	64	59	54	63	58	53	52
6	75	63	55	49	73	62	54	49	60	53	48	59	53	48	57	52	48	46
7	70	57	49	44	68	57	49	43	55	48	43	54	47	43	52	47	43	41
8	65	52	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37
9	61	48	41	35	59	48	40	35	47	40	35	46	39	35	45	39	35	33
10	57	45	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	68774	68774	68774
5°	68876	68876	68876
10°	69509	69353	69353
15°	70210	70210	70043
20°	71143	71315	70810
25°	71121	72886	70943
30°	69815	73510	69815
35°	67951	72633	67951
40°	64099	70784	64309
45°	59266	68316	59721
50°	49013	63946	49264
55°	35978	57450	36245
60°	24310	42543	24632
65°	18546	25737	18546
70°	13562	14502	13092
75°	5560	8044	5560
80°	4584	4584	4584
85°	3689	3689	3689



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.4	4.1
10°-20°	250.4	11.9
20°-30°	391.1	18.6
30°-40°	467.8	22.2
40°-50°	449.6	21.4
50°-60°	302.0	14.3
60°-70°	123.3	5.9
70°-80°	30.6	1.5
80°-90°	4.8	0.2
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°	726.9	34.5
0°-40°	1194.7	56.8
0°-60°	1946.3	92.5
0°-90°	2105.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2105.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	898	898	898	898	898	
5°	896	896	896	896	896	85
15°	886	886	886	884	884	251
25°	842	850	863	848	840	386
35°	727	748	777	750	727	452
45°	548	587	631	589	552	415
55°	270	326	430	328	272	245
65°	102	115	142	115	102	103
75°	19	21	27	21	19	27
85°	4	4	4	4	4	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	898.5	898.5	898.5	898.5	898.5
2.5°	896.4	896.4	896.4	898.5	898.5
5°	896.4	896.4	896.4	896.4	896.4
7.5°	894.3	894.3	894.3	894.3	894.3
10°	894.3	892.3	892.3	892.3	892.3
12.5°	888.1	888.1	888.1	888.1	886.0
15°	886.0	886.0	886.0	883.9	883.9
17.5°	881.8	881.8	879.7	879.7	879.7
20°	873.4	875.5	875.5	873.4	869.3
22.5°	858.8	865.1	871.4	863.0	856.7
25°	842.1	850.5	863.0	848.4	840.0
27.5°	817.0	829.6	848.4	829.6	817.0
30°	789.9	806.6	831.7	806.6	789.9
32.5°	760.6	779.4	806.6	779.4	760.6
35°	727.2	748.1	777.3	750.2	727.2
37.5°	683.3	712.6	746.0	716.7	687.5
40°	641.5	672.8	708.4	674.9	643.6
42.5°	595.5	631.1	670.8	633.1	599.7
45°	547.5	587.2	631.1	589.3	551.7
47.5°	484.8	532.8	585.1	539.1	489.0
50°	411.6	472.2	537.0	476.4	413.7
52.5°	338.5	397.0	484.8	401.2	338.5
55°	269.6	326.0	430.5	328.1	271.6
57.5°	206.9	257.0	359.4	261.2	206.9
60°	158.8	196.4	277.9	198.5	160.9
62.5°	125.4	148.4	204.8	146.3	125.4
65°	102.4	114.9	142.1	114.9	102.4
67.5°	81.5	89.9	94.0	89.9	81.5
70°	60.6	69.0	64.8	69.0	58.5
72.5°	35.5	43.9	43.9	43.9	33.4
75°	18.8	20.9	27.2	20.9	18.8
77.5°	14.6	14.6	16.7	14.6	14.6
80°	10.4	10.4	10.4	10.4	10.4
82.5°	6.3	6.3	6.3	6.3	6.3
85°	4.2	4.2	4.2	4.2	4.2
87.5°	2.1	2.1	2.1	2.1	2.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)