

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: P241960

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

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P241960
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-58)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: PRS420D010-S4M12-41SNDC-4000K
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" NARROW DISTRIBUTION, DEEP TRIM SPECULAR
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1840.5 lumens
Efficiency: N/A
Efficacy: 92.0 lumens/watt
Spacing Criteria (0/90/45): 0.8 / 0.79 / 0.83
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')
CIE Type: Direct

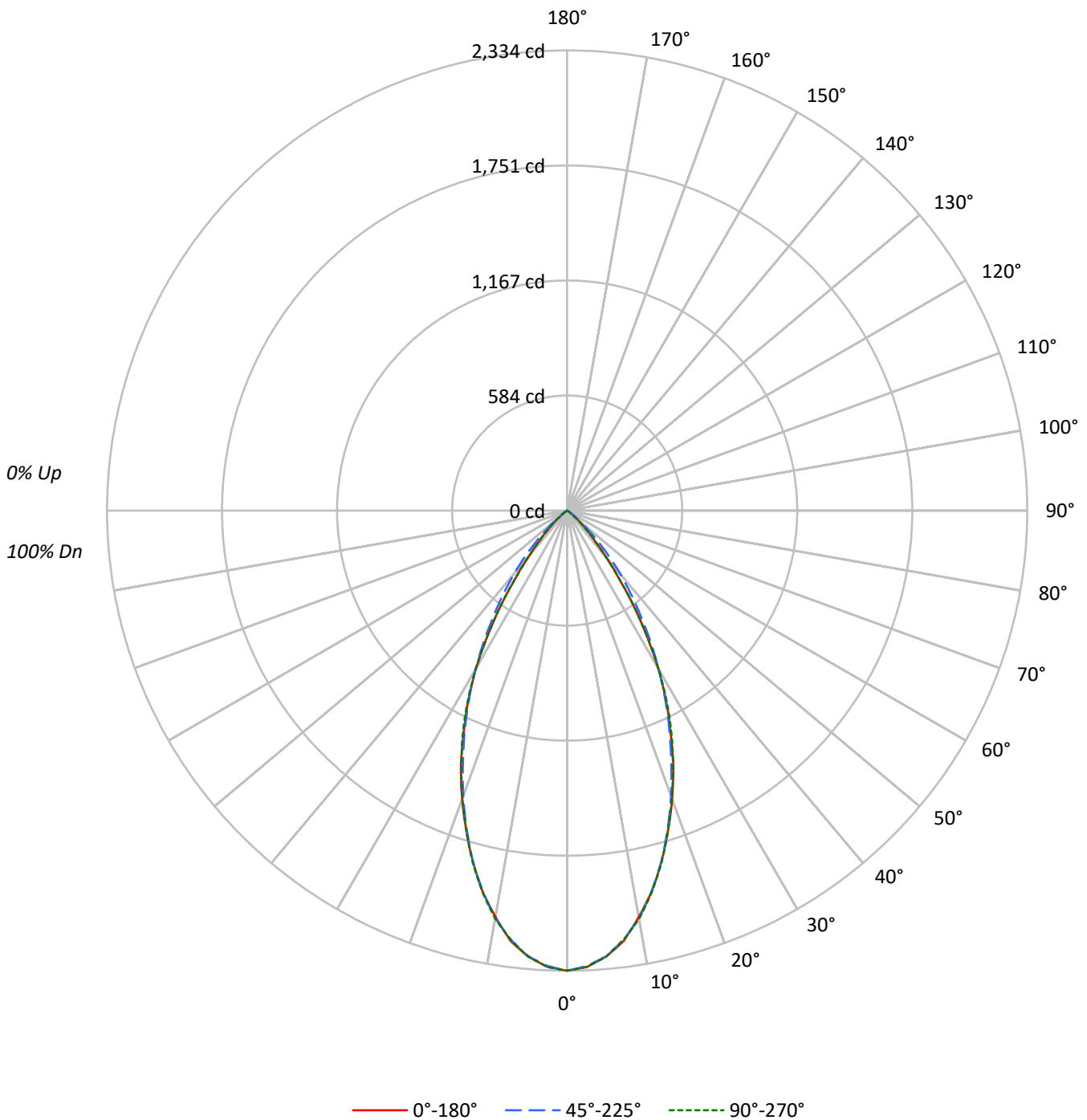
Input Watts (W): 20
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	100	100	100	100		
1	114	111	108	106	111	109	106	104	105	103	101	101	100	98	97	96	95	94	94	94	94	94	94	94		
2	108	103	99	96	106	101	98	95	98	95	93	95	93	91	92	91	89	87	87	87	87	87	87	87		
3	103	96	91	87	101	95	90	87	92	88	85	90	87	84	87	85	83	81	81	81	81	81	81	81		
4	97	90	84	80	96	89	84	80	87	82	79	85	81	78	83	80	77	75	75	75	75	75	75	75		
5	92	84	78	74	91	83	78	74	81	77	73	80	76	72	78	75	72	70	70	70	70	70	70	70		
6	88	79	73	69	86	78	73	68	77	72	68	75	71	68	74	70	67	66	66	66	66	66	66	66		
7	83	74	68	64	82	74	68	64	72	67	63	71	67	63	70	66	63	61	61	61	61	61	61	61		
8	79	70	64	60	78	69	64	60	68	63	59	67	63	59	66	62	59	58	58	58	58	58	58	58		
9	76	66	60	56	75	66	60	56	65	59	56	64	59	56	63	59	55	54	54	54	54	54	54	54		
10	72	62	57	53	71	62	57	53	61	56	53	60	56	52	60	55	52	51	51	51	51	51	51	51		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	178622	178622	178622
5°	174479	174310	174479
10°	162685	163190	163361
15°	146292	146117	146466
20°	126900	125491	126550
25°	104861	103577	105959
30°	81579	81774	81968
35°	54467	60336	54664
40°	30526	41787	30096
45°	15480	23923	15014
50°	6454	10574	6454
55°	294	4044	294
60°	337	995	337
65°	0	0	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°	211.2	11.5
10°-20°	512.7	27.9
20°-30°	564.9	30.7
30°-40°	385.6	21.0
40°-50°	143.7	7.8
50°-60°	21.8	1.2
60°-70°	0.5	0.0
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°	1288.9	70.0
0°-40°	1674.5	91.0
0°-60°	1840.0	100.0
0°-90°	1840.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1840.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2334	2334	2334	2334	2334	
5°	2271	2271	2269	2269	2271	211
15°	1846	1844	1844	1844	1848	513
25°	1242	1242	1226	1244	1255	567
35°	583	618	646	620	585	364
45°	143	171	221	167	139	118
55°	2	17	30	17	2	13
65°	0	0	0	0	0	0
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°	2333.6	2333.6	2333.6	2333.6	2333.6
2.5°	2316.3	2316.3	2311.9	2311.9	2316.3
5°	2270.8	2270.8	2268.6	2268.6	2270.8
7.5°	2201.4	2197.1	2194.9	2197.1	2194.9
10°	2093.1	2095.3	2099.6	2099.6	2101.8
12.5°	1980.4	1978.3	1978.3	1982.6	1982.6
15°	1846.1	1843.9	1843.9	1843.9	1848.3
17.5°	1700.9	1700.9	1694.4	1698.7	1700.9
20°	1557.9	1551.4	1540.6	1553.6	1553.6
22.5°	1408.4	1397.6	1380.2	1399.7	1401.9
25°	1241.6	1241.6	1226.4	1243.7	1254.6
27.5°	1085.6	1076.9	1076.9	1083.4	1094.2
30°	923.0	925.2	925.2	927.4	927.4
32.5°	747.5	771.4	784.4	771.4	747.5
35°	582.9	617.5	645.7	619.7	585.0
37.5°	424.7	474.5	526.5	472.4	426.9
40°	305.5	351.0	418.2	346.7	301.2
42.5°	208.0	249.2	314.2	242.7	208.0
45°	143.0	171.2	221.0	166.8	138.7
47.5°	93.2	114.8	143.0	112.7	93.2
50°	54.2	73.7	88.8	69.3	54.2
52.5°	26.0	41.2	52.0	41.2	26.0
55°	2.2	17.3	30.3	17.3	2.2
57.5°	2.2	2.2	15.2	2.2	2.2
60°	2.2	2.2	6.5	2.2	2.2
62.5°	0.0	0.0	2.2	0.0	0.0
65°	0.0	0.0	0.0	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)