

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: P241955

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

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P241955
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
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" NARROW DISTRIBUTION, DEEP TRIM SPECULAR
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

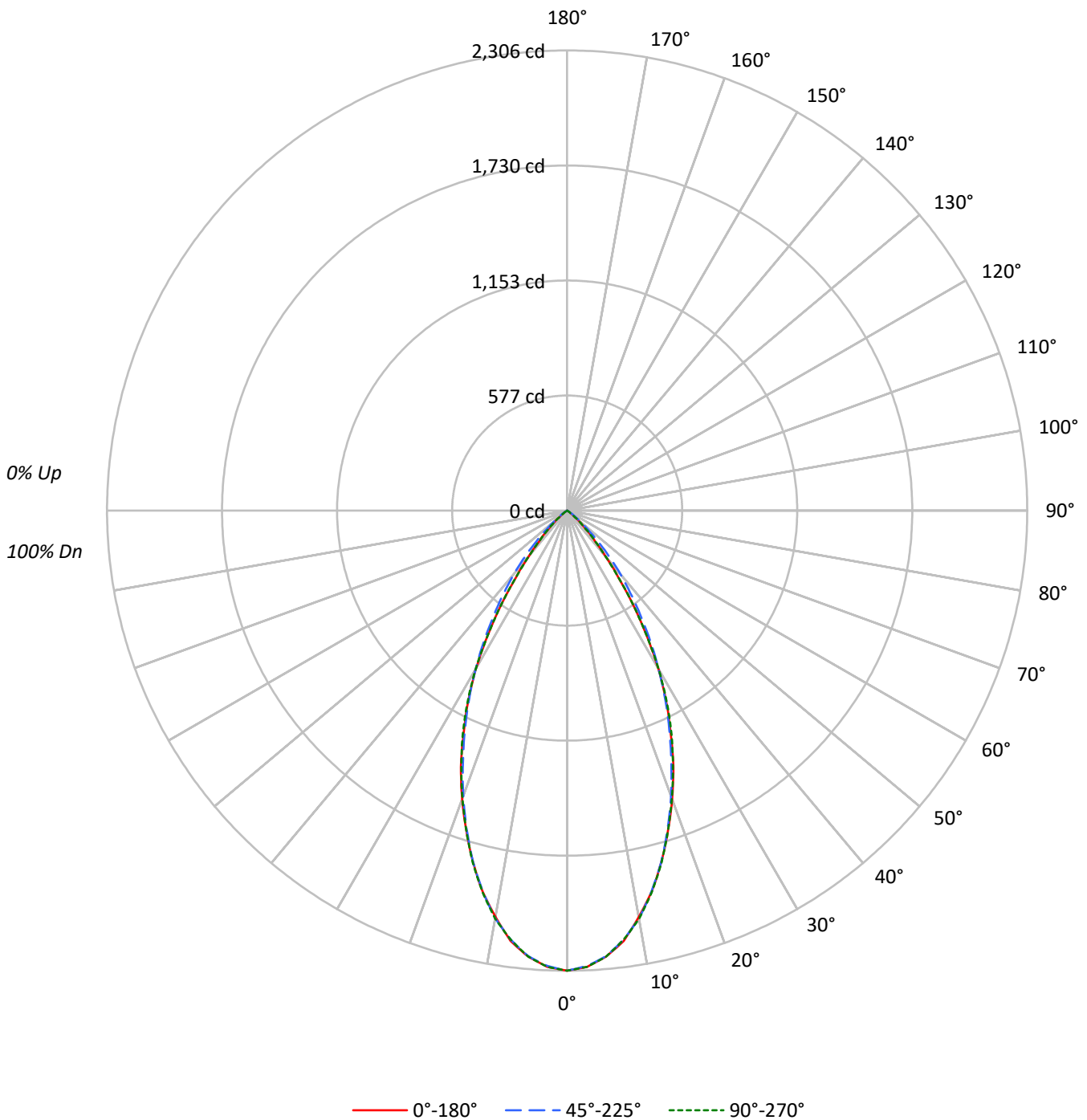
Lumens per Lamp: N/A
Luminaire Lumens: 1818.4 lumens
Efficiency: N/A
Efficacy: 90.9 lumens/watt
Spacing Criteria (0/90/45): 0.8 / 0.79 / 0.83
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	176486	176486	176486
5°	172389	172227	172389
10°	160741	161239	161402
15°	144540	144374	144707
20°	125385	123984	125035
25°	103603	102336	104684
30°	80607	80792	80987
35°	53813	59616	54010
40°	30166	41287	29736
45°	15296	23642	14830
50°	6371	10455	6371
55°	280	4003	280
60°	321	980	321
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°	208.7	11.5
10°-20°	506.6	27.9
20°-30°	558.2	30.7
30°-40°	381.0	21.0
40°-50°	142.0	7.8
50°-60°	21.5	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°	1273.4	70.0
0°-40°	1654.4	91.0
0°-60°	1817.9	100.0
0°-90°	1818.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1818.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2306	2306	2306	2306	2306	
5°	2244	2244	2242	2242	2244	209
15°	1824	1822	1822	1822	1826	507
25°	1227	1227	1212	1229	1240	560
35°	576	610	638	612	578	360
45°	141	169	218	165	137	117
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°	2305.7	2305.7	2305.7	2305.7	2305.7
2.5°	2288.6	2288.6	2284.3	2284.3	2288.6
5°	2243.6	2243.6	2241.5	2241.5	2243.6
7.5°	2175.1	2170.8	2168.7	2170.8	2168.7
10°	2068.1	2070.2	2074.5	2074.5	2076.6
12.5°	1956.7	1954.6	1954.6	1958.9	1958.9
15°	1824.0	1821.9	1821.9	1821.9	1826.1
17.5°	1680.6	1680.6	1674.1	1678.4	1680.6
20°	1539.3	1532.8	1522.1	1535.0	1535.0
22.5°	1391.5	1380.8	1363.7	1383.0	1385.1
25°	1226.7	1226.7	1211.7	1228.8	1239.5
27.5°	1072.6	1064.0	1064.0	1070.4	1081.1
30°	912.0	914.1	914.1	916.3	916.3
32.5°	738.6	762.1	775.0	762.1	738.6
35°	575.9	610.1	638.0	612.3	578.0
37.5°	419.6	468.8	520.2	466.7	421.7
40°	301.9	346.8	413.2	342.5	297.6
42.5°	205.5	246.2	310.4	239.8	205.5
45°	141.3	169.1	218.4	164.8	137.0
47.5°	92.1	113.5	141.3	111.3	92.1
50°	53.5	72.8	87.8	68.5	53.5
52.5°	25.7	40.7	51.4	40.7	25.7
55°	2.1	17.1	30.0	17.1	2.1
57.5°	2.1	2.1	15.0	2.1	2.1
60°	2.1	2.1	6.4	2.1	2.1
62.5°	0.0	0.0	2.1	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)