

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: P241770

Luminaire Tested: **PRS420D010-S4M12-44SNDC-3000K**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P241770
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-46)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: PRS420D010-S4M12-44SNDC-3000K
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" NARROW DISTRIBUTION, SHALLOW TRIM SPECULAR
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1854.8 lumens
Efficiency: N/A
Efficacy: 92.7 lumens/watt
Spacing Criteria (0/90/45): 0.9 / 0.9 / 0.95
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')
CIE Type: Direct

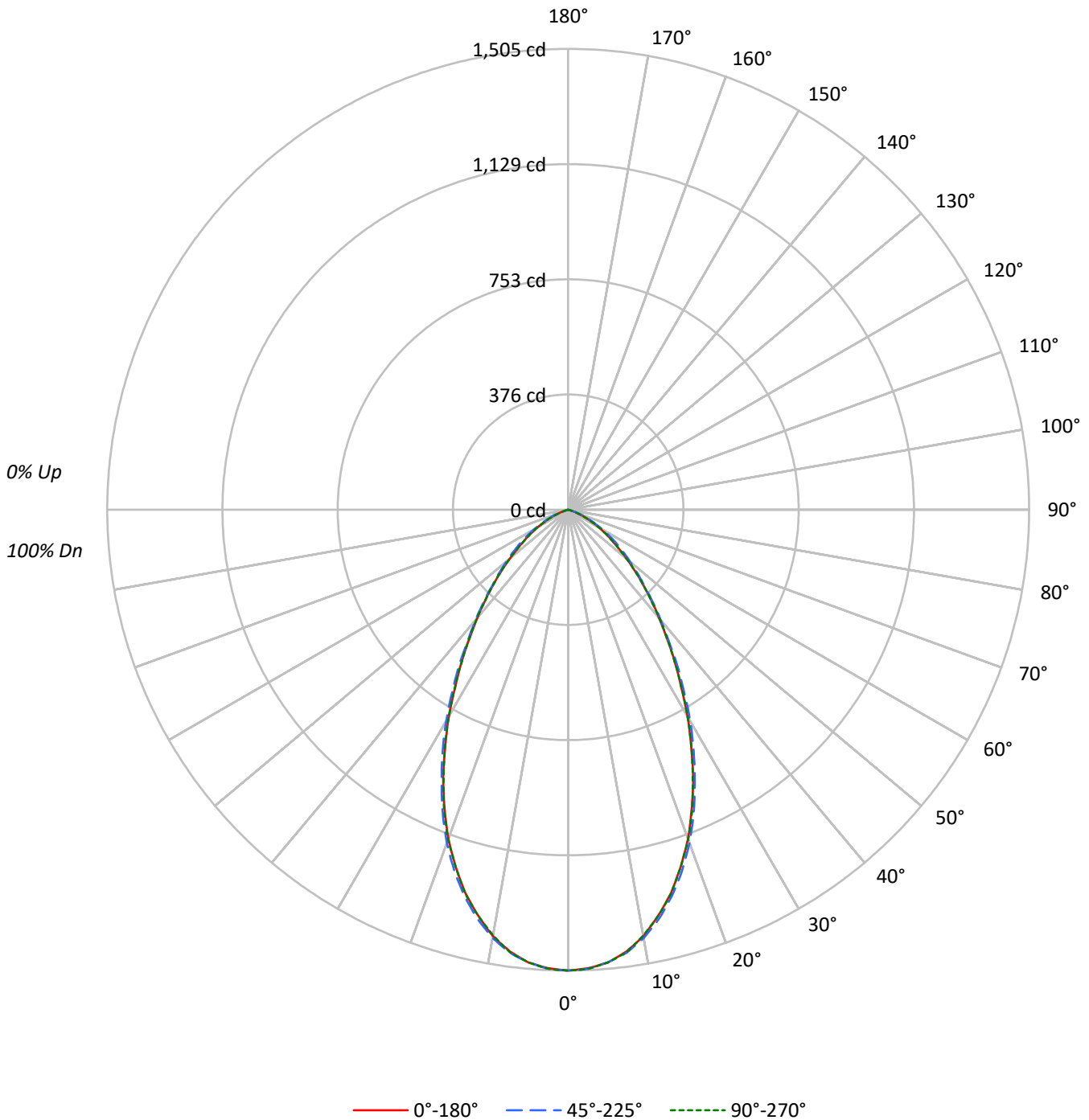
Input Watts (W): 20
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	106	103	110	107	104	102	103	100	98	99	97	96	95	94	93	91					91			
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82					82			
3	98	90	84	80	96	89	83	79	86	81	78	84	80	76	81	78	75	73					73			
4	92	83	76	71	90	82	75	70	79	74	70	77	72	69	75	71	68	66					66			
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60					60			
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	56	55					55			
7	76	65	58	53	74	64	57	53	63	57	52	62	56	52	60	55	52	50					50			
8	72	60	53	49	70	60	53	48	59	53	48	57	52	48	56	51	48	46					46			
9	68	56	49	45	66	56	49	45	55	49	45	54	48	44	53	48	44	43					43			
10	64	53	46	42	63	52	46	42	51	45	41	51	45	41	50	45	41	40					40			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	115205	115205	115205
5°	114055	114055	114055
10°	109910	110392	109747
15°	102723	103540	102882
20°	93128	94310	93299
25°	81543	82590	81196
30°	68887	70354	68887
35°	56607	57953	56607
40°	46063	46893	46273
45°	37378	38049	37378
50°	29544	31271	29544
55°	23180	25662	23180
60°	17727	19626	17727
65°	11990	13855	11990
70°	6020	7855	6020
75°	0	1834	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	139.5	7.5
10°-20°	363.3	19.6
20°-30°	445.0	24.0
30°-40°	385.4	20.8
40°-50°	273.4	14.7
50°-60°	165.3	8.9
60°-70°	73.8	4.0
70°-80°	9.0	0.5
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°	947.9	51.1
0°-40°	1333.3	71.9
0°-60°	1772.0	95.5
0°-90°	1854.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1854.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1505	1505	1505	1505	1505	
5°	1484	1484	1484	1484	1484	139
15°	1296	1302	1307	1304	1298	361
25°	966	978	978	976	961	440
35°	606	618	620	616	606	380
45°	345	354	352	356	345	268
55°	174	182	192	184	174	157
65°	66	74	76	74	66	67
75°	0	2	6	2	0	6
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°	1505.1	1505.1	1505.1	1505.1	1505.1
2.5°	1498.9	1498.9	1500.9	1500.9	1500.9
5°	1484.4	1484.4	1484.4	1484.4	1484.4
7.5°	1455.5	1455.5	1459.6	1457.5	1457.5
10°	1414.1	1414.1	1420.3	1416.2	1412.0
12.5°	1358.3	1364.5	1368.6	1364.5	1358.3
15°	1296.3	1302.5	1306.6	1304.5	1298.3
17.5°	1221.8	1232.2	1236.3	1232.2	1221.8
20°	1143.3	1151.6	1157.8	1151.6	1145.4
22.5°	1054.4	1064.7	1070.9	1064.7	1058.5
25°	965.5	977.9	977.9	975.8	961.4
27.5°	868.3	882.8	886.9	882.8	870.4
30°	779.4	789.8	796.0	789.8	779.4
32.5°	686.4	700.9	702.9	700.9	688.5
35°	605.8	618.2	620.2	616.1	605.8
37.5°	529.3	541.7	537.5	541.7	529.3
40°	461.0	471.4	469.3	471.4	463.1
42.5°	401.1	409.3	407.3	409.3	399.0
45°	345.3	353.5	351.5	355.6	345.3
47.5°	295.6	303.9	306.0	303.9	295.6
50°	248.1	260.5	262.6	260.5	248.1
52.5°	206.7	217.1	225.3	219.1	206.7
55°	173.7	181.9	192.3	184.0	173.7
57.5°	142.7	150.9	159.2	153.0	142.7
60°	115.8	124.0	128.2	124.0	115.8
62.5°	88.9	99.2	101.3	99.2	88.9
65°	66.2	74.4	76.5	74.4	66.2
67.5°	45.5	53.8	53.8	53.8	45.5
70°	26.9	33.1	35.1	35.1	26.9
72.5°	10.3	16.5	18.6	16.5	12.4
75°	0.0	2.1	6.2	2.1	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)