

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: P241860

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

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P241860
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-52)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: PRS420D010-S4M12-41SNDMW-3000K
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" NARROW 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: 1745.2 lumens
Efficiency: N/A
Efficacy: 87.3 lumens/watt
Spacing Criteria (0/90/45): 0.89 / 0.89 / 0.93
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')
CIE Type: Direct

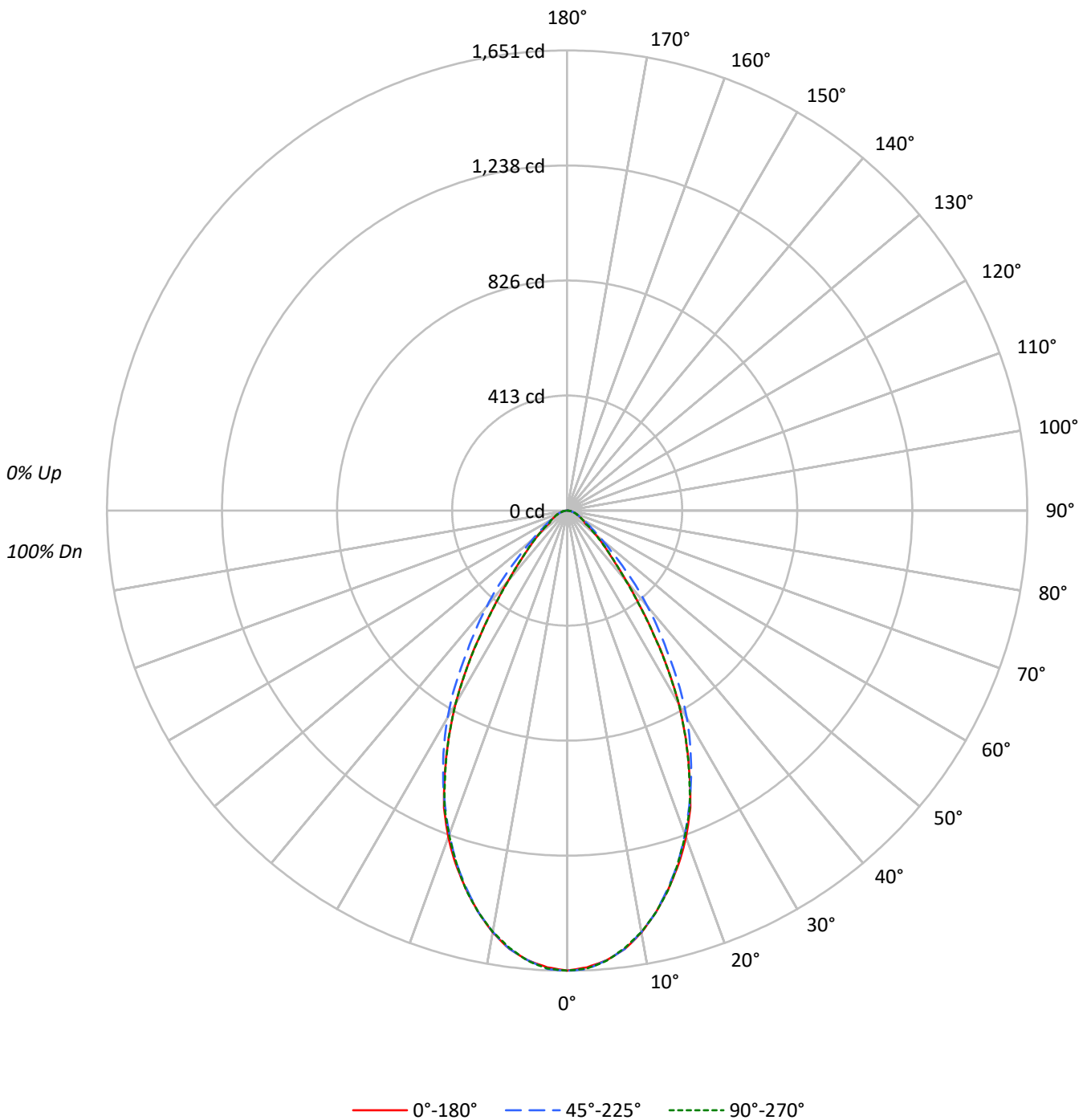
Input Watts (W): 20
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	104	110	107	104	102	103	101	99	99	97	96	96	94	93	91					91			
2	106	100	95	91	103	98	94	90	95	91	88	92	89	86	89	87	85	83					83			
3	99	92	86	82	97	91	85	81	88	83	80	85	82	78	83	80	77	75					75			
4	94	85	79	74	92	84	78	73	81	76	72	79	75	71	77	74	71	69					69			
5	88	79	72	67	86	78	71	67	76	70	66	74	69	66	72	68	65	63					63			
6	83	73	66	61	82	72	66	61	71	65	61	69	64	60	68	63	60	58					58			
7	79	68	61	57	77	67	61	57	66	60	56	65	60	56	64	59	56	54					54			
8	74	64	57	53	73	63	57	52	62	56	52	61	56	52	60	55	52	50					50			
9	70	60	53	49	69	59	53	49	58	53	49	57	52	48	56	52	48	47					47			
10	67	56	50	46	66	56	50	46	55	49	45	54	49	45	53	49	45	44					44			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	126343	126343	126343
5°	124443	124443	124597
10°	119447	119291	119291
15°	111290	110965	111456
20°	101592	100582	100924
25°	87691	88916	87345
30°	70752	75869	70752
35°	50449	59336	50057
40°	32864	44844	32444
45°	21942	30223	22169
50°	15766	19208	15516
55°	10489	13532	10489
60°	9507	10134	9507
65°	8621	8621	8621
70°	7878	7878	7878
75°	6743	6743	6743
80°	6392	6392	6392
85°	5445	5445	5445



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	152.0	8.7
10°-20°	391.9	22.5
20°-30°	476.5	27.3
30°-40°	368.8	21.1
40°-50°	189.9	10.9
50°-60°	86.0	4.9
60°-70°	47.7	2.7
70°-80°	25.1	1.4
80°-90°	7.2	0.4
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°	1020.4	58.5
0°-40°	1389.2	79.6
0°-60°	1665.2	95.4
0°-90°	1745.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1745.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1651	1651	1651	1651	1651	
5°	1620	1624	1620	1622	1622	152
15°	1404	1404	1400	1402	1406	393
25°	1038	1051	1053	1049	1034	473
35°	540	594	635	592	536	339
45°	203	234	279	234	205	164
55°	79	91	101	91	79	78
65°	48	48	48	48	48	47
75°	23	23	23	23	23	25
85°	6	6	6	6	6	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1650.6	1650.6	1650.6	1650.6	1650.6
2.5°	1640.2	1642.3	1646.5	1644.4	1644.4
5°	1619.6	1623.7	1619.6	1621.6	1621.6
7.5°	1586.5	1586.5	1586.5	1582.3	1582.3
10°	1536.8	1534.8	1534.8	1534.8	1534.8
12.5°	1474.8	1476.8	1474.8	1476.8	1474.8
15°	1404.4	1404.4	1400.3	1402.4	1406.5
17.5°	1330.0	1327.9	1323.8	1321.7	1323.8
20°	1247.2	1241.0	1234.8	1239.0	1239.0
22.5°	1154.2	1152.1	1145.9	1148.0	1150.0
25°	1038.3	1050.8	1052.8	1048.7	1034.2
27.5°	920.4	934.9	957.7	934.9	920.4
30°	800.5	823.2	858.4	823.2	800.5
32.5°	670.2	711.5	750.8	713.6	668.1
35°	539.9	593.6	635.0	591.6	535.7
37.5°	424.0	475.7	537.8	477.8	422.0
40°	328.9	376.5	448.8	376.5	324.7
42.5°	256.5	297.9	362.0	295.8	256.5
45°	202.7	233.7	279.2	233.7	204.8
47.5°	165.5	188.2	211.0	188.2	165.5
50°	132.4	148.9	161.3	148.9	130.3
52.5°	103.4	117.9	126.2	117.9	103.4
55°	78.6	91.0	101.4	91.0	78.6
57.5°	70.3	72.4	82.7	72.4	70.3
60°	62.1	62.1	66.2	62.1	62.1
62.5°	53.8	55.8	55.8	55.8	53.8
65°	47.6	47.6	47.6	47.6	47.6
67.5°	39.3	41.4	41.4	41.4	39.3
70°	35.2	35.2	35.2	35.2	35.2
72.5°	29.0	29.0	29.0	29.0	29.0
75°	22.8	22.8	22.8	22.8	22.8
77.5°	18.6	18.6	18.6	18.6	18.6
80°	14.5	14.5	14.5	14.5	14.5
82.5°	10.3	10.3	10.3	10.3	10.3
85°	6.2	6.2	6.2	6.2	6.2
87.5°	2.1	2.1	2.1	4.1	4.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)