

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: P241885

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

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P241885
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-53)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: PRS420D010-S4M12-41SMDMW-4000K
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM DISTRIBUTION, DEEP TRIM MATTE WHITE
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1981.4 lumens
Efficiency: N/A
Efficacy: 99.1 lumens/watt
Spacing Criteria (0/90/45): 0.98 / 0.98 / 1.02
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')
CIE Type: Direct

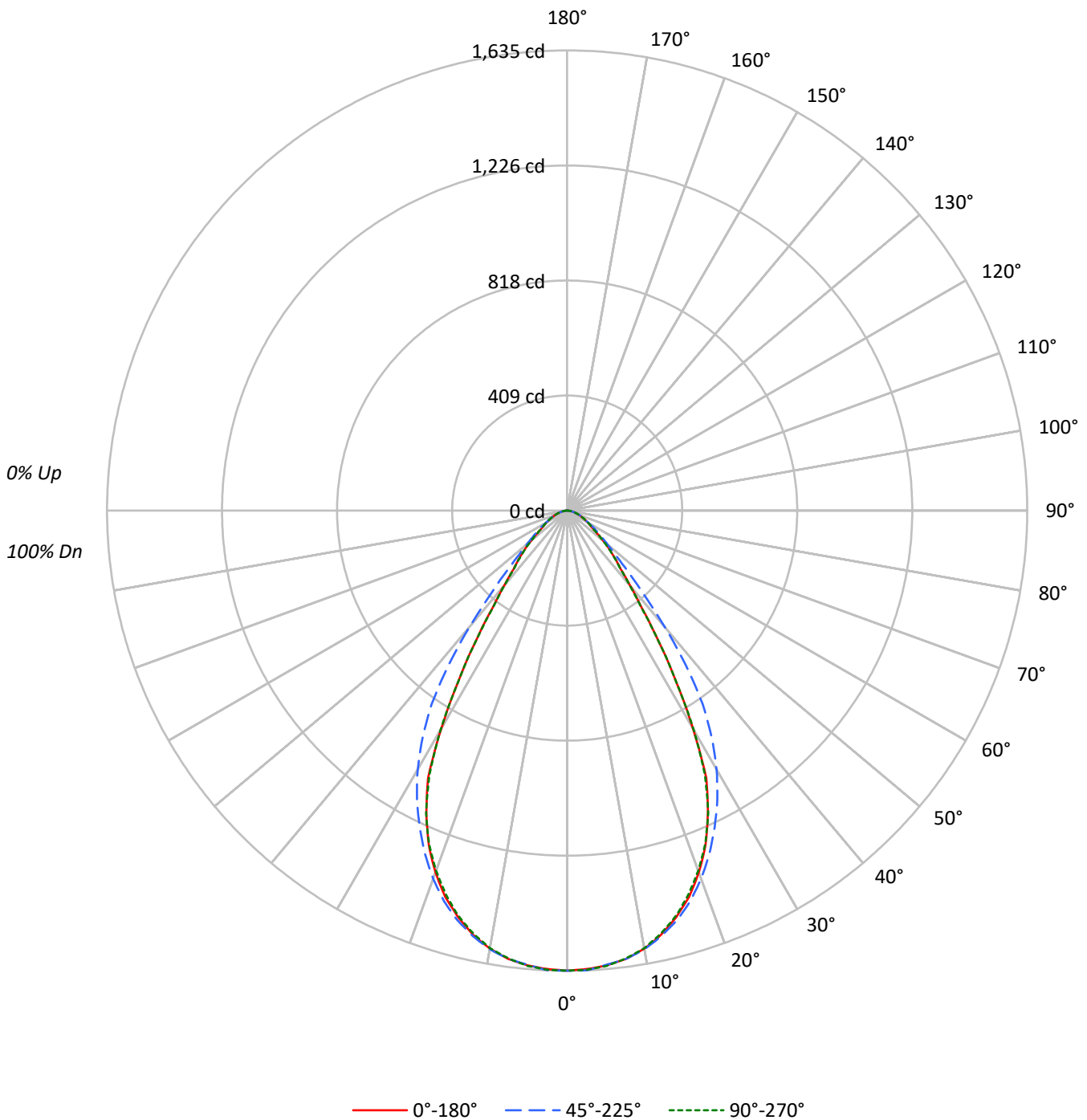
Input Watts (W): 20
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	95	95	94	93	91					91			
2	105	100	95	91	103	98	93	90	94	91	88	91	88	86	89	86	84	82					82			
3	99	91	85	81	97	90	84	80	87	83	79	85	81	77	82	79	76	74					74			
4	93	84	78	73	91	83	77	72	81	75	71	78	74	70	77	73	70	68					68			
5	87	78	71	66	86	77	70	66	75	69	65	73	68	64	71	67	64	62					62			
6	82	72	65	60	81	71	65	60	70	64	60	68	63	59	67	62	59	57					57			
7	78	67	60	55	76	66	60	55	65	59	55	64	58	55	62	58	54	53					53			
8	73	63	56	51	72	62	55	51	61	55	51	60	54	51	59	54	50	49					49			
9	69	59	52	47	68	58	52	47	57	51	47	56	51	47	55	50	47	45					45			
10	66	55	48	44	65	55	48	44	54	48	44	53	48	44	52	47	44	42					42			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	125125	125125	125125
5°	124605	124436	124766
10°	122843	123006	122672
15°	118540	119404	118200
20°	111432	113378	110902
25°	99971	104734	100157
30°	78945	93891	79520
35°	52673	78398	52673
40°	34662	53727	34223
45°	26045	32626	25817
50°	20136	22197	19875
55°	14759	17068	14759
60°	12951	13609	12951
65°	11392	11773	11392
70°	9713	10183	10183
75°	8991	8991	8991
80°	7626	7626	7626
85°	5709	7641	5709



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.5	7.7
10°-20°	420.0	21.2
20°-30°	551.6	27.8
30°-40°	425.4	21.5
40°-50°	213.8	10.8
50°-60°	112.3	5.7
60°-70°	63.5	3.2
70°-80°	32.3	1.6
80°-90°	8.8	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°	1125.2	56.8
0°-40°	1550.6	78.3
0°-60°	1876.8	94.7
0°-90°	1981.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1981.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1635	1635	1635	1635	1635	
5°	1622	1624	1620	1624	1624	154
15°	1496	1500	1507	1498	1492	419
25°	1184	1218	1240	1216	1186	534
35°	564	659	839	661	564	361
45°	241	264	301	262	238	189
55°	111	121	128	121	111	105
65°	63	63	65	63	63	62
75°	30	30	30	30	30	32
85°	6	6	9	6	6	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1634.7	1634.7	1634.7	1634.7	1634.7
2.5°	1630.3	1632.5	1634.7	1632.5	1632.5
5°	1621.7	1623.8	1619.5	1623.8	1623.8
7.5°	1606.5	1604.3	1606.5	1604.3	1604.3
10°	1580.5	1580.5	1582.6	1578.3	1578.3
12.5°	1543.6	1545.8	1548.0	1545.8	1539.3
15°	1495.9	1500.3	1506.8	1498.1	1491.6
17.5°	1439.6	1443.9	1454.7	1441.7	1430.9
20°	1368.0	1378.9	1391.9	1378.9	1361.5
22.5°	1285.6	1307.3	1320.3	1303.0	1281.3
25°	1183.7	1218.4	1240.1	1216.3	1185.9
27.5°	1071.0	1114.4	1155.5	1118.7	1060.2
30°	893.2	984.3	1062.3	988.6	899.7
32.5°	721.9	821.7	956.1	821.7	721.9
35°	563.7	659.1	839.0	661.2	563.7
37.5°	435.8	518.2	691.6	518.2	431.4
40°	346.9	401.1	537.7	398.9	342.5
42.5°	281.8	320.9	398.9	318.7	277.5
45°	240.6	264.5	301.4	262.3	238.5
47.5°	203.8	223.3	229.8	221.1	201.6
50°	169.1	188.6	186.4	186.4	166.9
52.5°	136.6	151.8	153.9	151.8	136.6
55°	110.6	121.4	127.9	121.4	110.6
57.5°	95.4	99.7	108.4	99.7	97.6
60°	84.6	86.7	88.9	86.7	84.6
62.5°	73.7	73.7	73.7	73.7	73.7
65°	62.9	62.9	65.0	62.9	62.9
67.5°	52.0	54.2	54.2	54.2	52.0
70°	43.4	45.5	45.5	45.5	45.5
72.5°	36.9	36.9	36.9	36.9	36.9
75°	30.4	30.4	30.4	30.4	30.4
77.5°	23.8	23.8	23.8	23.8	23.8
80°	17.3	17.3	17.3	17.3	17.3
82.5°	10.8	13.0	13.0	13.0	10.8
85°	6.5	6.5	8.7	6.5	6.5
87.5°	4.3	4.3	4.3	4.3	4.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)