

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: P241875

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

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P241875
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-3000K
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM 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: 1889.9 lumens
Efficiency: N/A
Efficacy: 94.5 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

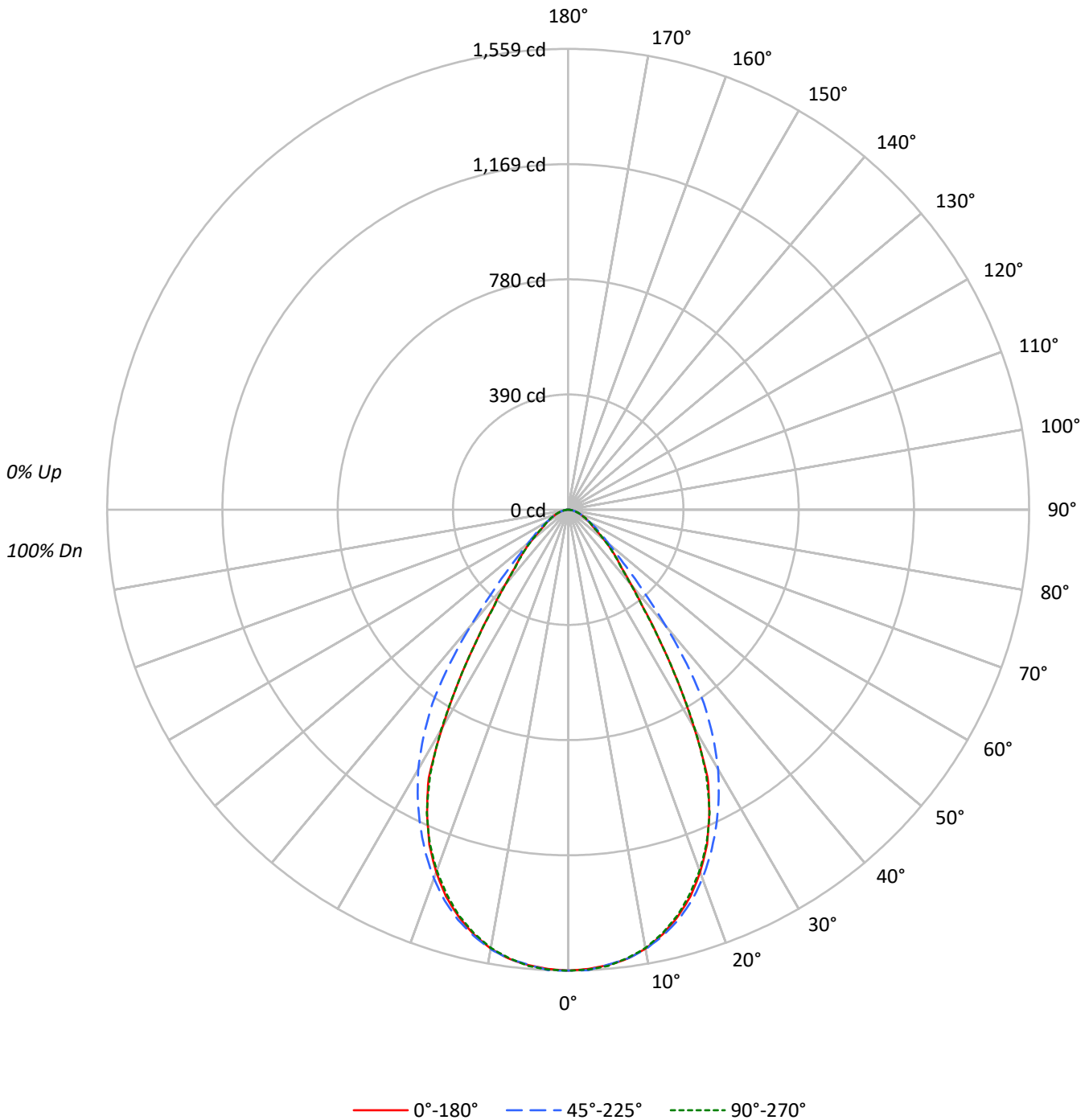
Input Watts (W): 20
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	119346	119346	119346
5°	118850	118696	119011
10°	117169	117332	117014
15°	113073	113889	112740
20°	106292	108141	105787
25°	95360	99903	95537
30°	75304	89560	75852
35°	50244	74782	50244
40°	33064	51249	32644
45°	24843	31111	24627
50°	19208	21172	18958
55°	14079	16281	14079
60°	12339	12982	12339
65°	10867	11229	10867
70°	9265	9713	9713
75°	8576	8576	8576
80°	7273	7273	7273
85°	5445	7289	5445



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	146.4	7.7
10°-20°	400.6	21.2
20°-30°	526.2	27.8
30°-40°	405.8	21.5
40°-50°	204.0	10.8
50°-60°	107.1	5.7
60°-70°	60.5	3.2
70°-80°	30.8	1.6
80°-90°	8.4	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°	1073.3	56.8
0°-40°	1479.1	78.3
0°-60°	1790.2	94.7
0°-90°	1889.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1889.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1559	1559	1559	1559	1559	
5°	1547	1549	1545	1549	1549	146
15°	1427	1431	1437	1429	1423	400
25°	1129	1162	1183	1160	1131	510
35°	538	629	800	631	538	344
45°	230	252	287	250	228	180
55°	106	116	122	116	106	100
65°	60	60	62	60	60	60
75°	29	29	29	29	29	31
85°	6	6	8	6	6	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1559.2	1559.2	1559.2	1559.2	1559.2
2.5°	1555.1	1557.2	1559.2	1557.2	1557.2
5°	1546.8	1548.9	1544.8	1548.9	1548.9
7.5°	1532.3	1530.3	1532.3	1530.3	1530.3
10°	1507.5	1507.5	1509.6	1505.5	1505.5
12.5°	1472.4	1474.4	1476.5	1474.4	1468.2
15°	1426.9	1431.0	1437.2	1429.0	1422.7
17.5°	1373.1	1377.3	1387.6	1375.2	1364.8
20°	1304.9	1315.2	1327.6	1315.2	1298.7
22.5°	1226.3	1247.0	1259.4	1242.8	1222.2
25°	1129.1	1162.2	1182.9	1160.1	1131.2
27.5°	1021.6	1062.9	1102.2	1067.1	1011.2
30°	852.0	938.8	1013.3	943.0	858.2
32.5°	688.6	783.8	912.0	783.8	688.6
35°	537.7	628.7	800.3	630.7	537.7
37.5°	415.7	494.2	659.7	494.2	411.5
40°	330.9	382.6	512.9	380.5	326.7
42.5°	268.8	306.1	380.5	304.0	264.7
45°	229.5	252.3	287.4	250.2	227.5
47.5°	194.4	213.0	219.2	210.9	192.3
50°	161.3	179.9	177.8	177.8	159.2
52.5°	130.3	144.8	146.8	144.8	130.3
55°	105.5	115.8	122.0	115.8	105.5
57.5°	91.0	95.1	103.4	95.1	93.1
60°	80.6	82.7	84.8	82.7	80.6
62.5°	70.3	70.3	70.3	70.3	70.3
65°	60.0	60.0	62.0	60.0	60.0
67.5°	49.6	51.7	51.7	51.7	49.6
70°	41.4	43.4	43.4	43.4	43.4
72.5°	35.2	35.2	35.2	35.2	35.2
75°	29.0	29.0	29.0	29.0	29.0
77.5°	22.7	22.7	22.7	22.7	22.7
80°	16.5	16.5	16.5	16.5	16.5
82.5°	10.3	12.4	12.4	12.4	10.3
85°	6.2	6.2	8.3	6.2	6.2
87.5°	4.1	4.1	4.1	4.1	4.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)