

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: P241959

Luminaire Tested: **PRS415D010-S4M12-41SNDC-4000K**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P241959
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: PRS415D010-S4M12-41SNDC-4000K
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" NARROW DISTRIBUTION, DEEP TRIM SPECULAR
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1146.2 lumens
Efficiency: N/A
Efficacy: 95.5 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

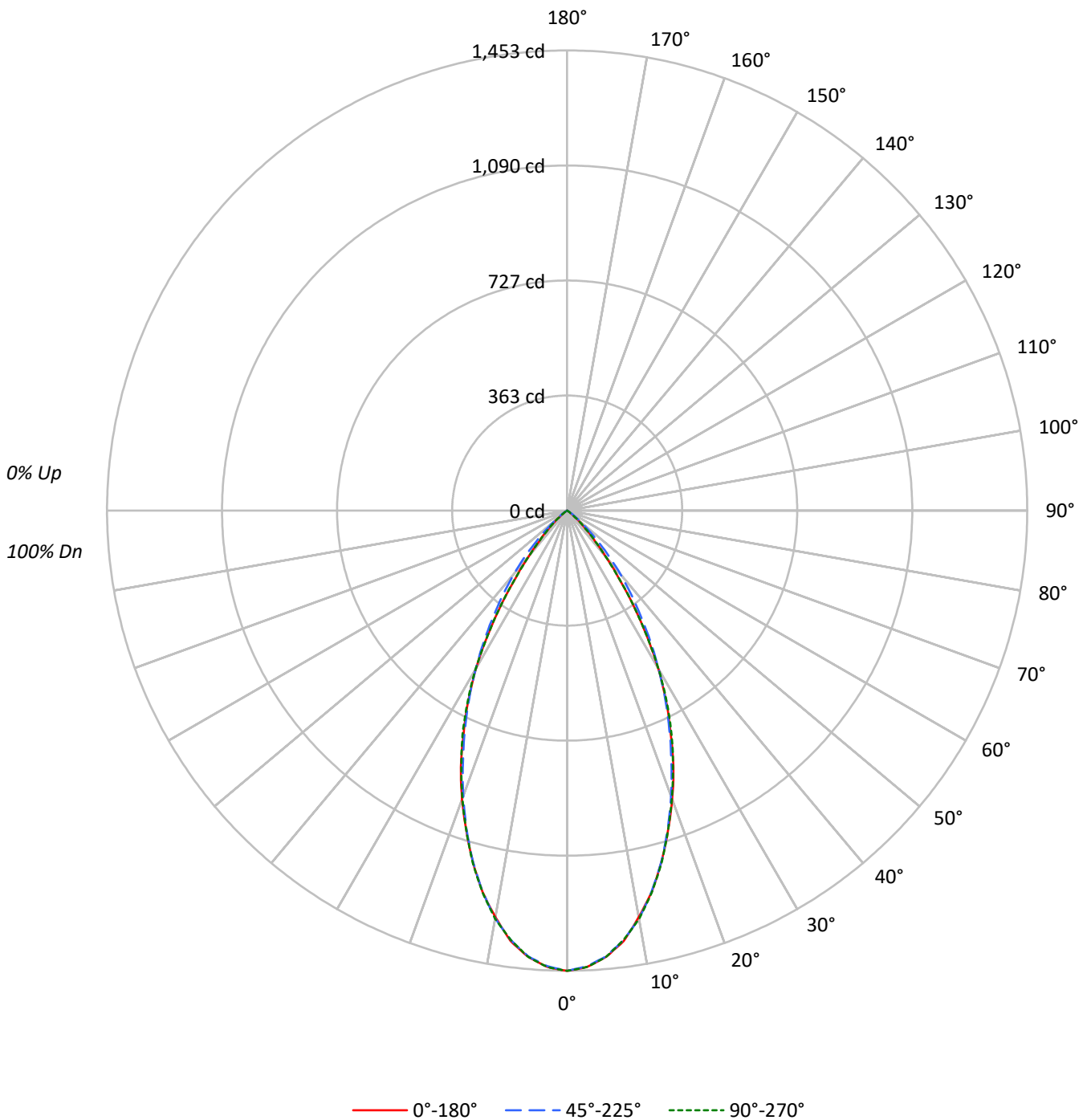
Input Watts (W): 12
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	114	111	108	106	111	109	106	104	105	103	101	101	100	98	97	96	95	94
2	108	103	99	96	106	101	98	95	98	95	93	95	93	91	92	91	89	87
3	103	96	91	87	101	95	90	87	92	88	85	90	87	84	87	85	83	81
4	97	90	84	80	96	89	84	80	87	82	79	85	81	78	83	80	77	75
5	92	84	78	74	91	83	78	74	81	77	73	80	76	72	78	75	72	70
6	88	79	73	69	86	78	73	68	77	72	68	75	71	68	74	70	67	66
7	83	74	68	64	82	74	68	64	72	67	63	71	67	63	70	66	63	61
8	79	70	64	60	78	69	64	60	68	63	59	67	63	59	66	62	59	58
9	76	66	60	56	75	66	60	56	65	59	56	64	59	56	63	59	55	54
10	72	62	57	53	71	62	57	53	61	56	53	60	56	52	60	55	52	51

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	111241	111241	111241
5°	108661	108554	108661
10°	101313	101632	101733
15°	91106	91003	91217
20°	79028	78149	78808
25°	65302	64508	65986
30°	50812	50927	51051
35°	33920	37573	34041
40°	19015	26019	18745
45°	9645	14895	9353
50°	4013	6585	4013
55°	173	2522	173
60°	199	612	199
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°	131.5	11.5
10°-20°	319.3	27.9
20°-30°	351.8	30.7
30°-40°	240.2	21.0
40°-50°	89.5	7.8
50°-60°	13.5	1.2
60°-70°	0.3	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°	802.7	70.0
0°-40°	1042.8	91.0
0°-60°	1145.9	100.0
0°-90°	1146.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1146.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1453	1453	1453	1453	1453	
5°	1414	1414	1413	1413	1414	132
15°	1150	1148	1148	1148	1151	320
25°	773	773	764	775	781	353
35°	363	385	402	386	364	227
45°	89	107	138	104	86	74
55°	1	11	19	11	1	8
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°	1453.3	1453.3	1453.3	1453.3	1453.3
2.5°	1442.5	1442.5	1439.8	1439.8	1442.5
5°	1414.2	1414.2	1412.8	1412.8	1414.2
7.5°	1371.0	1368.3	1367.0	1368.3	1367.0
10°	1303.5	1304.9	1307.6	1307.6	1308.9
12.5°	1233.4	1232.0	1232.0	1234.7	1234.7
15°	1149.7	1148.4	1148.4	1148.4	1151.1
17.5°	1059.3	1059.3	1055.2	1057.9	1059.3
20°	970.2	966.2	959.4	967.5	967.5
22.5°	877.1	870.4	859.6	871.7	873.1
25°	773.2	773.2	763.8	774.6	781.3
27.5°	676.1	670.7	670.7	674.7	681.5
30°	574.9	576.2	576.2	577.6	577.6
32.5°	465.5	480.4	488.5	480.4	465.5
35°	363.0	384.6	402.1	385.9	364.3
37.5°	264.5	295.5	327.9	294.2	265.8
40°	190.3	218.6	260.4	215.9	187.6
42.5°	129.5	155.2	195.7	151.1	129.5
45°	89.1	106.6	137.6	103.9	86.4
47.5°	58.0	71.5	89.1	70.2	58.0
50°	33.7	45.9	55.3	43.2	33.7
52.5°	16.2	25.6	32.4	25.6	16.2
55°	1.3	10.8	18.9	10.8	1.3
57.5°	1.3	1.3	9.4	1.3	1.3
60°	1.3	1.3	4.0	1.3	1.3
62.5°	0.0	0.0	1.3	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)