

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: P241840

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

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P241840
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-50)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: PRS420D010-S4M12-41SMDMB-4000K
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM DISTRIBUTION, DEEP TRIM MATTE BLACK
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1445.9 lumens
Efficiency: N/A
Efficacy: 72.3 lumens/watt
Spacing Criteria (0/90/45): 0.95 / 0.95 / 0.98
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')
CIE Type: Direct

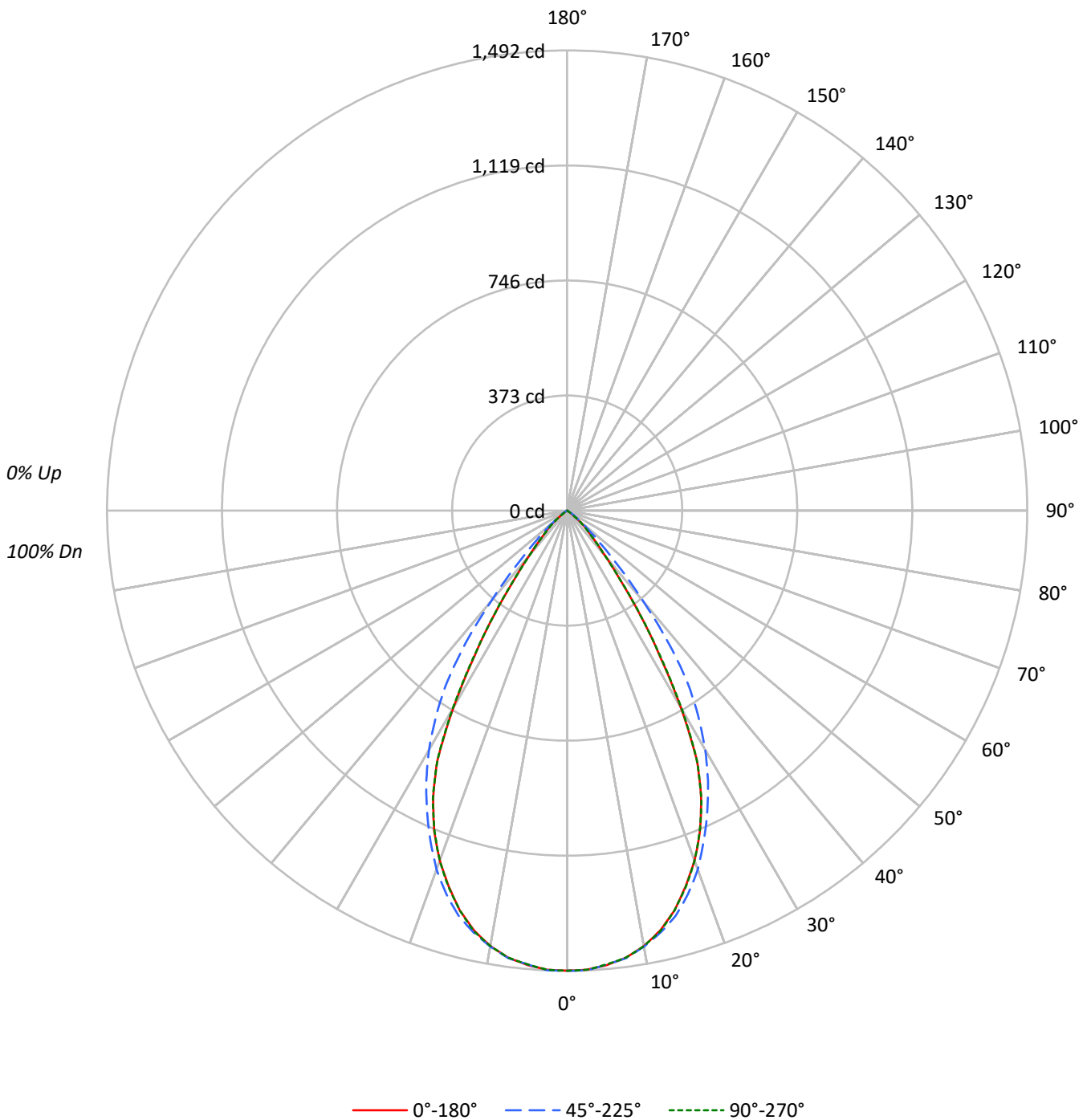
Input Watts (W): 20
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	113	111	108	106	111	109	106	104	104	103	101	101	99	98	97	96	95	93					93			
2	108	103	99	95	106	101	97	94	98	95	92	95	92	90	92	90	88	87					87			
3	102	96	91	87	100	94	90	86	92	88	85	89	86	83	87	84	82	80					80			
4	97	89	84	79	95	88	83	79	86	81	78	84	80	77	82	79	76	75					75			
5	92	83	77	73	90	82	77	73	81	76	72	79	75	71	77	74	71	69					69			
6	87	78	72	68	86	77	72	67	76	71	67	74	70	66	73	69	66	65					65			
7	83	73	67	63	81	73	67	63	71	66	62	70	65	62	69	65	62	60					60			
8	78	69	63	59	77	68	62	58	67	62	58	66	61	58	65	61	58	56					56			
9	75	65	59	55	74	64	59	55	63	58	54	62	58	54	62	57	54	53					53			
10	71	61	55	51	70	61	55	51	60	55	51	59	54	51	58	54	51	49					49			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	114203	114203	114203
5°	113640	113471	113471
10°	111418	111581	111418
15°	106377	107747	106377
20°	98390	100867	98390
25°	86813	90841	86998
30°	65166	79157	65741
35°	38302	63634	38498
40°	19065	38569	18855
45°	10565	17374	10565
50°	5168	7228	5168
55°	294	3189	294
60°	337	658	337
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°	139.8	9.7
10°-20°	377.2	26.1
20°-30°	477.9	33.1
30°-40°	327.7	22.7
40°-50°	105.7	7.3
50°-60°	17.2	1.2
60°-70°	0.5	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°	994.8	68.8
0°-40°	1322.6	91.5
0°-60°	1445.5	100.0
0°-90°	1445.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1445.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1492	1492	1492	1492	1492	
5°	1479	1481	1477	1481	1477	140
15°	1342	1351	1360	1351	1342	375
25°	1028	1058	1076	1056	1030	461
35°	410	505	681	510	412	262
45°	98	121	160	119	98	80
55°	2	13	24	13	2	10
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°	1492.0	1492.0	1492.0	1492.0	1492.0
2.5°	1489.9	1489.9	1492.0	1489.9	1489.9
5°	1479.0	1481.2	1476.8	1481.2	1476.8
7.5°	1461.7	1459.5	1463.8	1459.5	1461.7
10°	1433.5	1431.3	1435.6	1431.3	1433.5
12.5°	1394.4	1396.6	1400.9	1398.8	1396.6
15°	1342.4	1351.1	1359.7	1351.1	1342.4
17.5°	1277.3	1288.2	1303.3	1288.2	1279.5
20°	1207.9	1218.8	1238.3	1220.9	1207.9
22.5°	1125.5	1147.2	1158.1	1145.0	1123.4
25°	1027.9	1058.3	1075.6	1056.1	1030.1
27.5°	910.8	958.5	988.9	958.5	910.8
30°	737.3	830.6	895.6	830.6	743.8
32.5°	559.5	667.9	791.6	663.6	566.0
35°	409.9	505.3	681.0	509.6	412.0
37.5°	279.8	364.3	537.8	360.0	281.9
40°	190.8	251.6	386.0	249.4	188.7
42.5°	134.5	171.3	255.9	171.3	132.3
45°	97.6	121.4	160.5	119.3	97.6
47.5°	71.6	88.9	99.8	86.7	69.4
50°	43.4	60.7	60.7	60.7	43.4
52.5°	19.5	34.7	36.9	34.7	19.5
55°	2.2	13.0	23.9	13.0	2.2
57.5°	2.2	2.2	13.0	2.2	2.2
60°	2.2	2.2	4.3	2.2	2.2
62.5°	0.0	0.0	2.2	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)