

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: P241705

Luminaire Tested: **PRS420D010-S4M12-44SMDMW-4000K**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P241705
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-41)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: PRS420D010-S4M12-44SMDMW-4000K
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM DISTRIBUTION, SHALLOW 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: 2271.9 lumens
Efficiency: N/A
Efficacy: 113.6 lumens/watt
Spacing Criteria (0/90/45): 1.01 / 1.01 / 1.08
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')
CIE Type: Direct

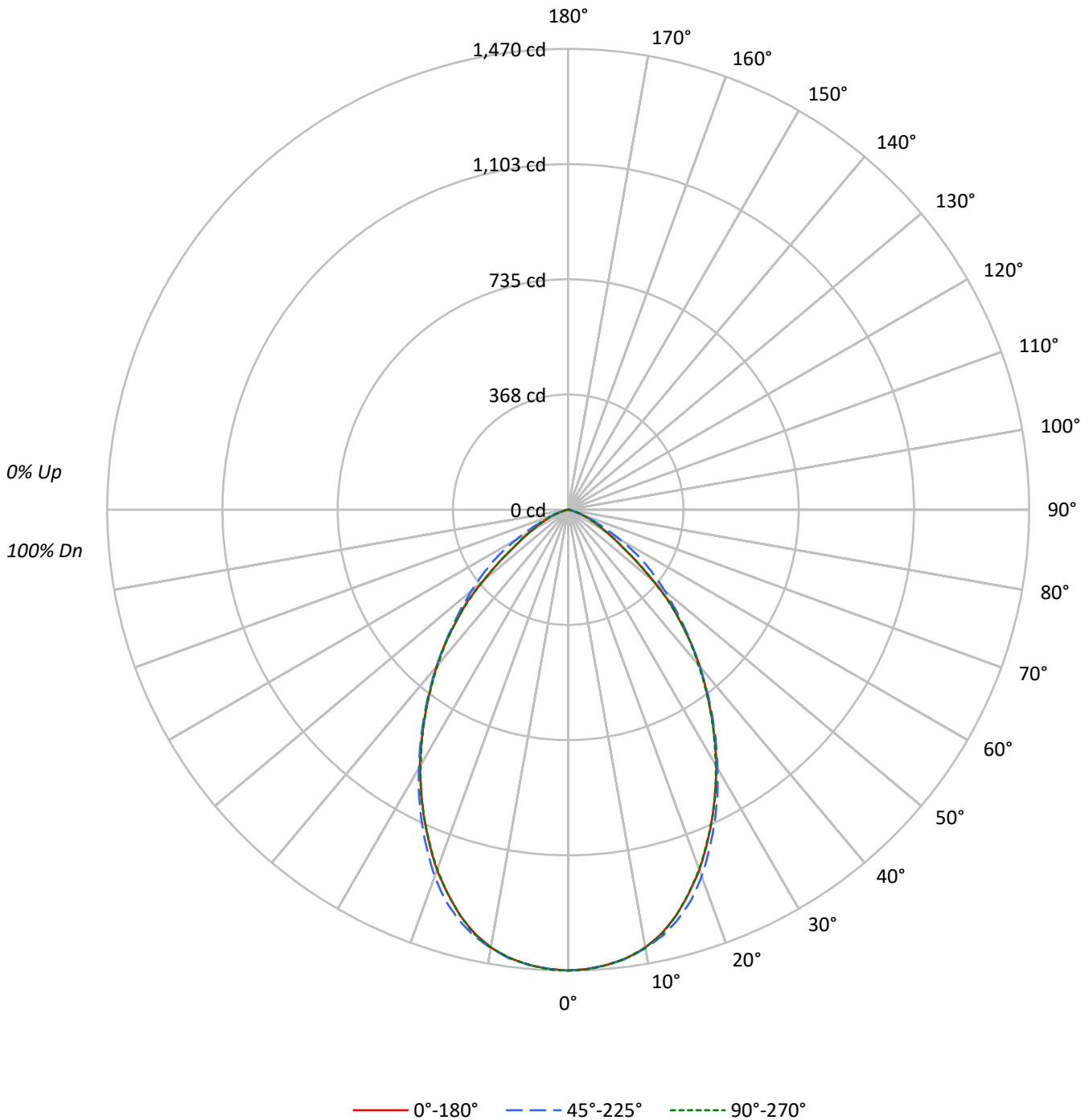
Input Watts (W): 20
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90					90			
2	104	98	93	88	102	96	91	87	93	89	85	90	86	84	87	84	82	80					80			
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71					71			
4	90	81	74	68	88	79	73	68	77	71	67	75	70	66	73	69	65	63					63			
5	84	74	66	61	82	73	66	60	71	65	60	69	64	59	67	62	59	57					57			
6	79	68	60	55	77	67	60	54	65	59	54	63	58	54	62	57	53	51					51			
7	74	62	55	49	72	61	54	49	60	54	49	59	53	49	57	52	48	47					47			
8	69	57	50	45	68	57	50	45	56	49	45	54	49	45	53	48	44	43					43			
9	65	53	46	41	64	53	46	41	52	45	41	51	45	41	50	45	41	39					39			
10	61	50	43	38	60	49	43	38	48	42	38	47	42	38	47	41	38	36					36			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	112511	112511	112511
5°	111942	111942	111942
10°	110205	110368	110205
15°	106004	107201	106004
20°	99604	101364	99425
25°	91736	93198	91736
30°	83550	84125	83161
35°	74146	74754	74146
40°	65208	65208	64559
45°	54676	56094	54915
50°	42345	47763	42345
55°	29225	39928	29506
60°	20912	29546	20912
65°	15703	18854	15323
70°	10183	12130	10675
75°	3845	6418	3845
80°	2865	3835	2865
85°	1932	1932	1932



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	137.9	6.1
10°-20°	376.6	16.6
20°-30°	503.1	22.1
30°-40°	499.6	22.0
40°-50°	397.3	17.5
50°-60°	232.1	10.2
60°-70°	97.8	4.3
70°-80°	24.0	1.1
80°-90°	3.5	0.2
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°	1017.6	44.8
0°-40°	1517.1	66.8
0°-60°	2146.6	94.5
0°-90°	2271.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2271.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1470	1470	1470	1470	1470	
5°	1457	1457	1457	1457	1457	138
15°	1338	1346	1353	1346	1338	374
25°	1086	1101	1104	1099	1086	498
35°	794	806	800	802	794	496
45°	505	518	518	518	507	390
55°	219	249	299	249	221	205
65°	87	95	104	95	85	87
75°	13	15	22	17	13	20
85°	2	2	2	2	2	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1469.9	1469.9	1469.9	1469.9	1469.9
2.5°	1465.6	1465.6	1465.6	1465.6	1467.7
5°	1456.9	1456.9	1456.9	1456.9	1456.9
7.5°	1441.7	1441.7	1443.9	1443.9	1441.7
10°	1417.9	1417.9	1420.0	1420.0	1417.9
12.5°	1383.2	1387.5	1391.9	1387.5	1385.4
15°	1337.7	1346.3	1352.8	1346.3	1337.7
17.5°	1281.3	1292.1	1305.1	1292.1	1281.3
20°	1222.8	1233.6	1244.4	1231.4	1220.6
22.5°	1155.6	1168.6	1175.1	1166.4	1153.4
25°	1086.2	1101.4	1103.5	1099.2	1086.2
27.5°	1014.6	1025.5	1029.8	1027.6	1016.8
30°	945.3	956.1	951.8	953.9	940.9
32.5°	869.4	880.2	875.9	875.9	867.2
35°	793.5	806.5	800.0	802.2	793.5
37.5°	721.9	728.5	726.3	728.5	719.8
40°	652.6	656.9	652.6	656.9	646.1
42.5°	581.0	587.5	583.2	587.5	578.9
45°	505.1	518.2	518.2	518.2	507.3
47.5°	440.1	450.9	457.5	450.9	433.6
50°	355.6	388.1	401.1	385.9	355.6
52.5°	281.8	314.4	349.1	314.4	284.0
55°	219.0	249.3	299.2	249.3	221.1
57.5°	173.4	195.1	247.2	195.1	173.4
60°	136.6	153.9	193.0	153.9	136.6
62.5°	108.4	121.4	143.1	121.4	108.4
65°	86.7	95.4	104.1	95.4	84.6
67.5°	67.2	73.7	75.9	73.7	65.0
70°	45.5	54.2	54.2	54.2	47.7
72.5°	28.2	34.7	36.9	34.7	28.2
75°	13.0	15.2	21.7	17.3	13.0
77.5°	10.8	10.8	10.8	10.8	10.8
80°	6.5	8.7	8.7	8.7	6.5
82.5°	4.3	4.3	4.3	4.3	4.3
85°	2.2	2.2	2.2	2.2	2.2
87.5°	2.2	2.2	2.2	2.2	2.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)