

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: P241700

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

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P241700
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
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM DISTRIBUTION, SHALLOW TRIM MATTE WHITE
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2244.7 lumens
Efficiency: N/A
Efficacy: 112.2 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

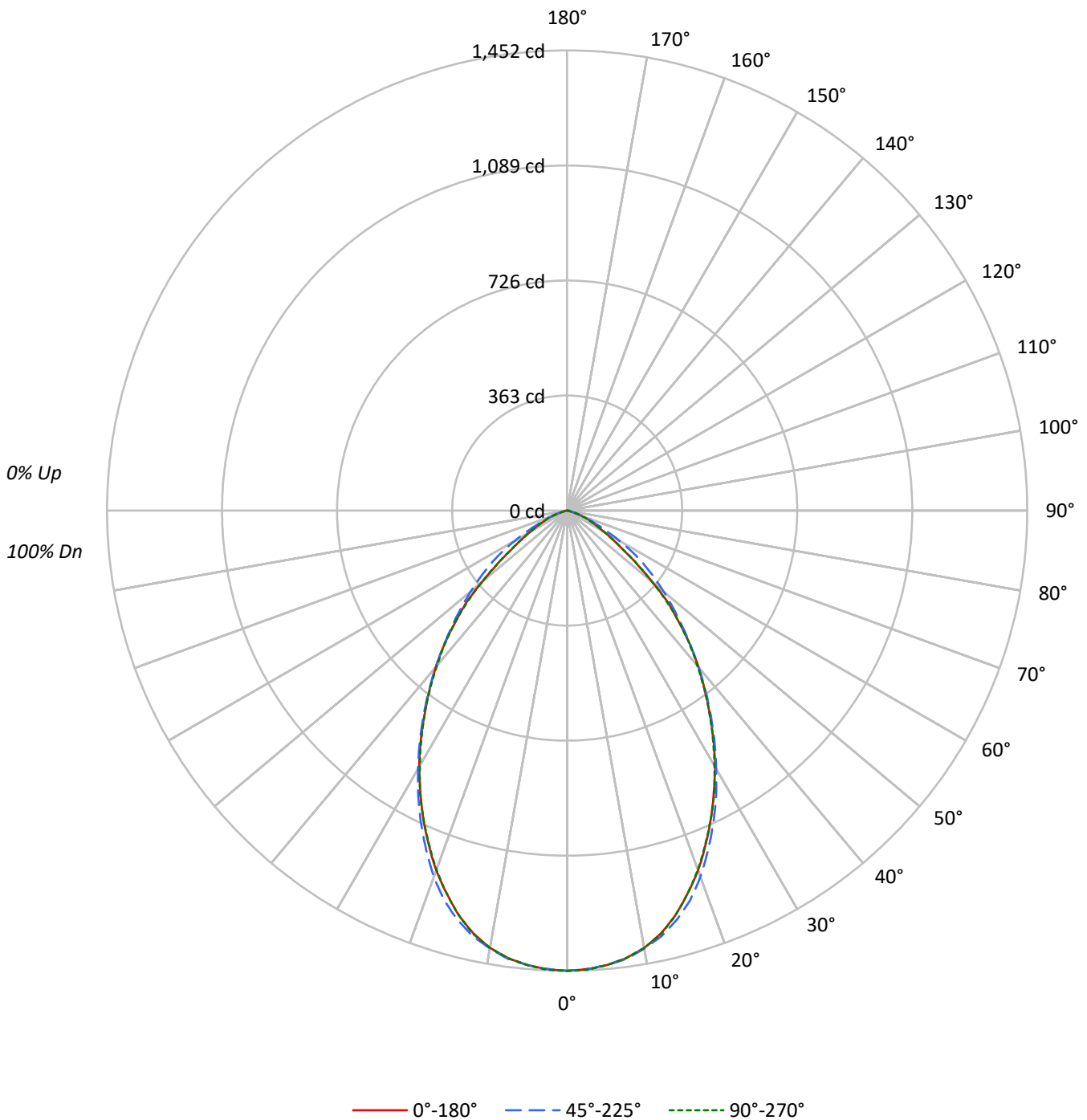
Input Watts (W): 20
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	111164	111164	111164
5°	110605	110605	110605
10°	108884	109055	108884
15°	104736	105925	104736
20°	98407	100150	98236
25°	90638	92083	90638
30°	82542	83117	82171
35°	73259	73857	73259
40°	64429	64429	63779
45°	54027	55423	54254
50°	41833	47192	41833
55°	28865	39448	29159
60°	20667	29178	20667
65°	15522	18619	15123
70°	10071	11996	10541
75°	3815	6329	3815
80°	2821	3791	2821
85°	1844	1844	1844



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.3	6.1
10°-20°	372.1	16.6
20°-30°	497.0	22.1
30°-40°	493.6	22.0
40°-50°	392.6	17.5
50°-60°	229.3	10.2
60°-70°	96.7	4.3
70°-80°	23.7	1.1
80°-90°	3.4	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°	1005.4	44.8
0°-40°	1499.0	66.8
0°-60°	2120.9	94.5
0°-90°	2244.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2244.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1452	1452	1452	1452	1452	
5°	1440	1440	1440	1440	1440	136
15°	1322	1330	1337	1330	1322	370
25°	1073	1088	1090	1086	1073	493
35°	784	797	790	793	784	490
45°	499	512	512	512	501	385
55°	216	246	296	246	218	202
65°	86	94	103	94	84	86
75°	13	15	21	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°	1452.3	1452.3	1452.3	1452.3	1452.3
2.5°	1448.0	1448.0	1448.0	1448.0	1450.2
5°	1439.5	1439.5	1439.5	1439.5	1439.5
7.5°	1424.5	1424.5	1426.6	1426.6	1424.5
10°	1400.9	1400.9	1403.1	1403.1	1400.9
12.5°	1366.6	1370.9	1375.2	1370.9	1368.8
15°	1321.7	1330.2	1336.7	1330.2	1321.7
17.5°	1266.0	1276.7	1289.5	1276.7	1266.0
20°	1208.1	1218.8	1229.5	1216.7	1206.0
22.5°	1141.7	1154.6	1161.0	1152.4	1139.6
25°	1073.2	1088.2	1090.3	1086.0	1073.2
27.5°	1002.5	1013.2	1017.5	1015.3	1004.6
30°	933.9	944.7	940.4	942.5	929.7
32.5°	859.0	869.7	865.4	865.4	856.8
35°	784.0	796.9	790.4	792.6	784.0
37.5°	713.3	719.7	717.6	719.7	711.2
40°	644.8	649.0	644.8	649.0	638.3
42.5°	574.1	580.5	576.2	580.5	571.9
45°	499.1	512.0	512.0	512.0	501.2
47.5°	434.8	445.6	452.0	445.6	428.4
50°	351.3	383.4	396.3	381.3	351.3
52.5°	278.5	310.6	344.9	310.6	280.6
55°	216.3	246.3	295.6	246.3	218.5
57.5°	171.4	192.8	244.2	192.8	171.4
60°	135.0	152.1	190.6	152.1	135.0
62.5°	107.1	120.0	141.4	120.0	107.1
65°	85.7	94.3	102.8	94.3	83.5
67.5°	66.4	72.8	75.0	72.8	64.3
70°	45.0	53.6	53.6	53.6	47.1
72.5°	27.8	34.3	36.4	34.3	27.8
75°	12.9	15.0	21.4	17.1	12.9
77.5°	10.7	10.7	10.7	10.7	10.7
80°	6.4	8.6	8.6	8.6	6.4
82.5°	4.3	4.3	4.3	4.3	4.3
85°	2.1	2.1	2.1	2.1	2.1
87.5°	2.1	2.1	2.1	2.1	2.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)