

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: P252983

Luminaire Tested: **PRS410D010-S4M12-41SWDMB-4000K**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P252983
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1805-776-2)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: PRS410D010-S4M12-41SWDMB-4000K
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" WIDE 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: 568.0 lumens
Efficiency: N/A
Efficacy: 56.8 lumens/watt
Spacing Criteria (0/90/45): 1.11 / 1.1 / 1.15
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')
CIE Type: Direct

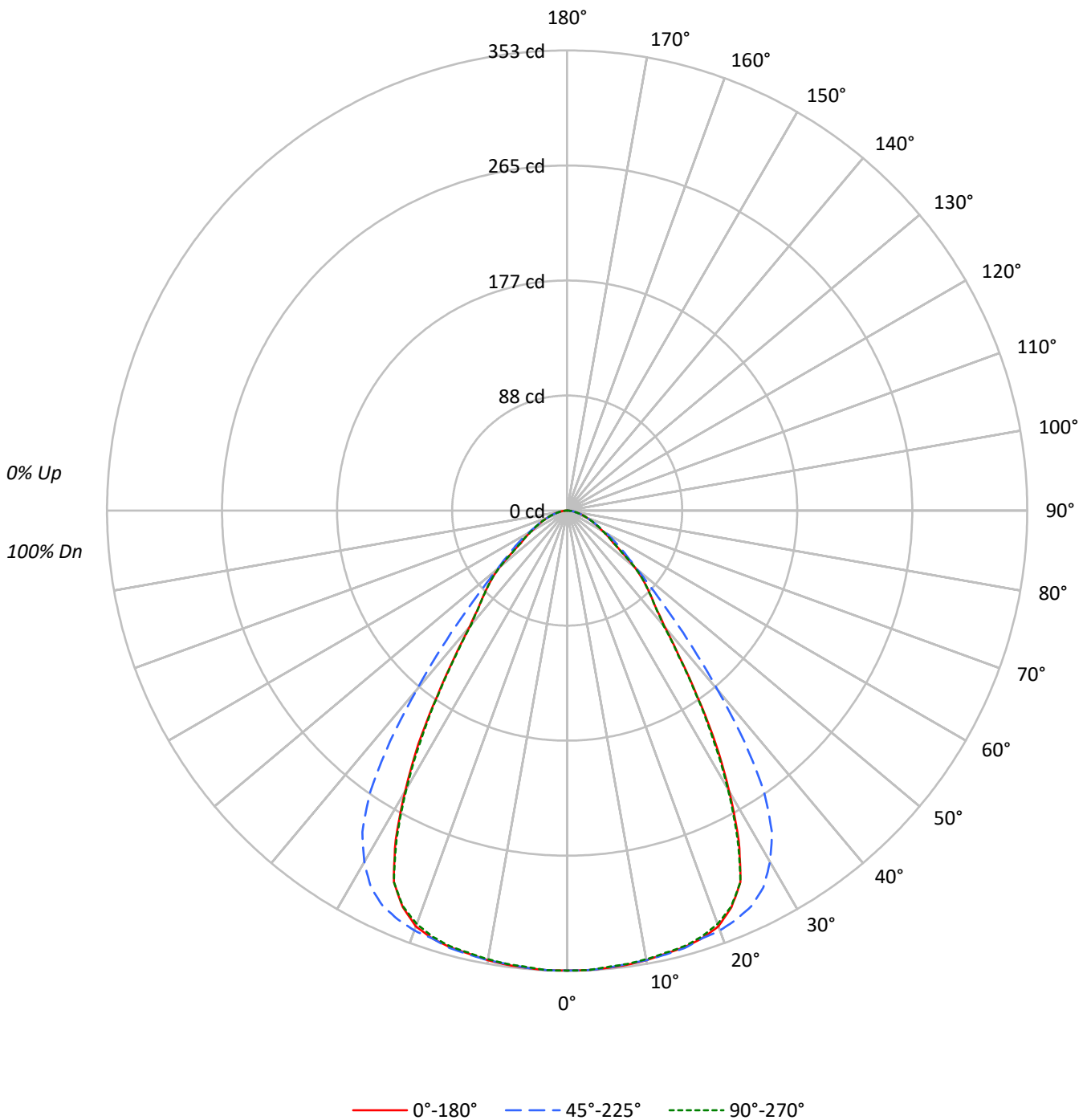
Input Watts (W): 10
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	102	99	97	98	96	94	95	93	92	90					90			
2	104	98	93	88	102	96	91	87	93	89	86	90	86	84	87	84	82	80					80			
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	76	73	72					72			
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64					64			
5	85	75	67	62	83	74	67	62	72	66	61	70	65	60	68	64	60	58					58			
6	80	69	61	56	78	68	61	56	66	60	55	65	59	55	63	58	55	53					53			
7	75	63	56	51	73	63	56	51	61	55	51	60	54	50	59	54	50	48					48			
8	70	59	52	47	69	58	51	47	57	51	46	56	50	46	55	50	46	44					44			
9	66	55	48	43	65	54	47	43	53	47	43	52	47	42	51	46	42	41					41			
10	63	51	44	40	61	51	44	40	50	44	39	49	43	39	48	43	39	38					38			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	27012	27012	27012
5°	27062	27062	27008
10°	27219	27219	27165
15°	27482	27537	27426
20°	27646	27923	27483
25°	26562	28268	26562
30°	21981	27505	21805
35°	16268	24622	16137
40°	11621	17936	11481
45°	9677	11929	9677
50°	8086	8324	8086
55°	5738	6632	5832
60°	4838	5251	4838
65°	4148	4256	4148
70°	3603	3603	3603
75°	3194	3194	3194
80°	2645	2645	2645
85°	2371	2371	2371



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.5	5.9
10°-20°	98.0	17.3
20°-30°	146.4	25.8
30°-40°	130.3	22.9
40°-50°	77.6	13.7
50°-60°	43.9	7.7
60°-70°	23.5	4.1
70°-80°	11.5	2.0
80°-90°	3.2	0.6
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°	277.9	48.9
0°-40°	408.3	71.9
0°-60°	529.8	93.3
0°-90°	568.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	568.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	353	353	353	353	353	
5°	352	352	352	352	352	34
15°	347	347	348	346	346	98
25°	314	323	335	323	314	140
35°	174	204	264	203	173	110
45°	89	96	110	95	89	69
55°	43	48	50	48	44	41
65°	23	24	24	24	23	23
75°	11	11	11	11	11	12
85°	3	3	3	3	3	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	352.9	352.9	352.9	352.9	352.9
2.5°	352.9	352.9	352.9	352.9	352.9
5°	352.2	352.2	352.2	352.2	351.5
7.5°	351.5	350.8	350.8	350.8	350.8
10°	350.2	350.2	350.2	349.5	349.5
12.5°	348.2	348.2	348.8	348.2	347.5
15°	346.8	346.8	347.5	346.1	346.1
17.5°	344.1	344.8	344.1	344.1	342.8
20°	339.4	341.4	342.8	340.8	337.4
22.5°	329.3	334.7	339.4	334.0	328.7
25°	314.5	323.3	334.7	322.6	314.5
27.5°	285.0	307.2	326.0	305.1	283.0
30°	248.7	275.6	311.2	273.5	246.7
32.5°	212.4	239.3	292.4	237.9	209.0
35°	174.1	203.6	263.5	203.0	172.7
37.5°	141.8	168.7	223.1	167.4	140.5
40°	116.3	137.1	179.5	136.4	114.9
42.5°	100.1	111.6	141.8	110.9	100.1
45°	89.4	96.1	110.2	95.4	89.4
47.5°	79.3	84.7	86.7	84.0	79.3
50°	67.9	73.9	69.9	73.9	67.9
52.5°	53.8	61.2	58.5	61.8	53.1
55°	43.0	47.7	49.7	47.7	43.7
57.5°	37.6	39.0	41.7	39.0	37.6
60°	31.6	32.9	34.3	32.9	31.6
62.5°	26.9	28.2	28.2	28.2	27.6
65°	22.9	23.5	23.5	23.5	22.9
67.5°	19.5	19.5	19.5	19.5	19.5
70°	16.1	16.1	16.1	16.1	16.1
72.5°	13.4	13.4	13.4	13.4	13.4
75°	10.8	10.8	10.8	10.8	10.8
77.5°	8.7	8.7	8.1	8.7	8.1
80°	6.0	6.0	6.0	6.0	6.0
82.5°	4.7	4.7	4.7	4.7	4.7
85°	2.7	2.7	2.7	2.7	2.7
87.5°	1.3	1.3	1.3	1.3	1.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)