

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: P252943

Luminaire Tested: **PRS410D010-S4M12-41SWDH-3000K**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P252943
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-S4M12-41SWDH-3000K
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, DEEP TRIM HAZE
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 801.5 lumens
Efficiency: N/A
Efficacy: 80.2 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

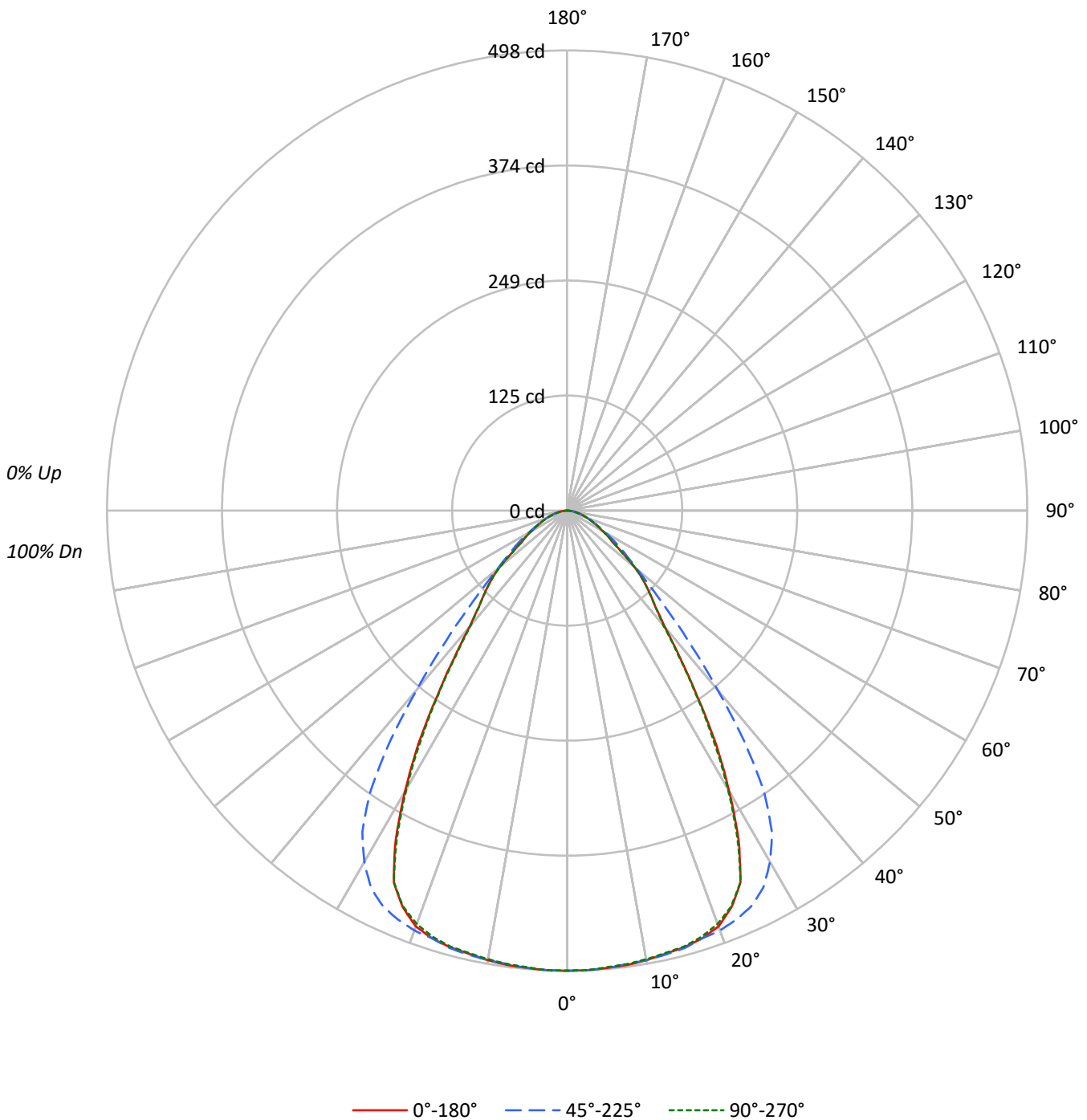
Input Watts (W): 10
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	38111	38111	38111
5°	38180	38180	38111
10°	38404	38404	38326
15°	38774	38853	38703
20°	39009	39392	38781
25°	37482	39889	37482
30°	31014	38810	30758
35°	22949	34732	22772
40°	16397	25300	16207
45°	13650	16833	13650
50°	11408	11741	11408
55°	8100	9368	8220
60°	6828	7409	6828
65°	5832	6013	5832
70°	5103	5103	5103
75°	4495	4495	4495
80°	3747	3747	3747
85°	3337	3337	3337



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.3	5.9
10°-20°	138.3	17.2
20°-30°	206.6	25.8
30°-40°	183.9	22.9
40°-50°	109.4	13.7
50°-60°	62.0	7.7
60°-70°	33.2	4.1
70°-80°	16.3	2.0
80°-90°	4.5	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°	392.2	48.9
0°-40°	576.1	71.9
0°-60°	747.5	93.3
0°-90°	801.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	801.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	498	498	498	498	498	
5°	497	497	497	497	496	47
15°	489	489	490	488	488	138
25°	444	456	472	455	444	198
35°	246	287	372	286	244	155
45°	126	136	156	135	126	98
55°	61	67	70	67	62	58
65°	32	33	33	33	32	32
75°	15	15	15	15	15	16
85°	4	4	4	4	4	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	497.9	497.9	497.9	497.9	497.9
2.5°	497.9	497.9	497.9	497.9	497.9
5°	496.9	496.9	496.9	496.9	496.0
7.5°	496.0	495.0	495.0	495.0	495.0
10°	494.1	494.1	494.1	493.1	493.1
12.5°	491.2	491.2	492.2	491.2	490.3
15°	489.3	489.3	490.3	488.4	488.4
17.5°	485.5	486.5	485.5	485.5	483.6
20°	478.9	481.7	483.6	480.8	476.1
22.5°	464.7	472.3	478.9	471.3	463.7
25°	443.8	456.1	472.3	455.2	443.8
27.5°	402.1	433.4	459.9	430.5	399.2
30°	350.9	388.8	439.1	386.0	348.0
32.5°	299.7	337.6	412.5	335.7	294.9
35°	245.6	287.3	371.7	286.4	243.7
37.5°	200.1	238.0	314.8	236.1	198.2
40°	164.1	193.5	253.2	192.5	162.2
42.5°	141.3	157.4	200.1	156.5	141.3
45°	126.1	135.6	155.5	134.7	126.1
47.5°	111.9	119.5	122.3	118.5	111.9
50°	95.8	104.3	98.6	104.3	95.8
52.5°	75.9	86.3	82.5	87.2	74.9
55°	60.7	67.3	70.2	67.3	61.6
57.5°	53.1	55.0	58.8	55.0	53.1
60°	44.6	46.5	48.4	46.5	44.6
62.5°	37.9	39.8	39.8	39.8	38.9
65°	32.2	33.2	33.2	33.2	32.2
67.5°	27.5	27.5	27.5	27.5	27.5
70°	22.8	22.8	22.8	22.8	22.8
72.5°	19.0	19.0	19.0	19.0	19.0
75°	15.2	15.2	15.2	15.2	15.2
77.5°	12.3	12.3	11.4	12.3	11.4
80°	8.5	8.5	8.5	8.5	8.5
82.5°	6.6	6.6	6.6	6.6	6.6
85°	3.8	3.8	3.8	3.8	3.8
87.5°	1.9	1.9	1.9	1.9	1.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)