

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: P241733

Luminaire Tested: **PRS410D010-S4M12-44SNDH-4000K**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P241733
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-43)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: PRS410D010-S4M12-44SNDH-4000K
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" NARROW DISTRIBUTION, SHALLOW TRIM HAZE
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 903.8 lumens
Efficiency: N/A
Efficacy: 90.4 lumens/watt
Spacing Criteria (0/90/45): 0.88 / 0.88 / 0.92
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')
CIE Type: Direct

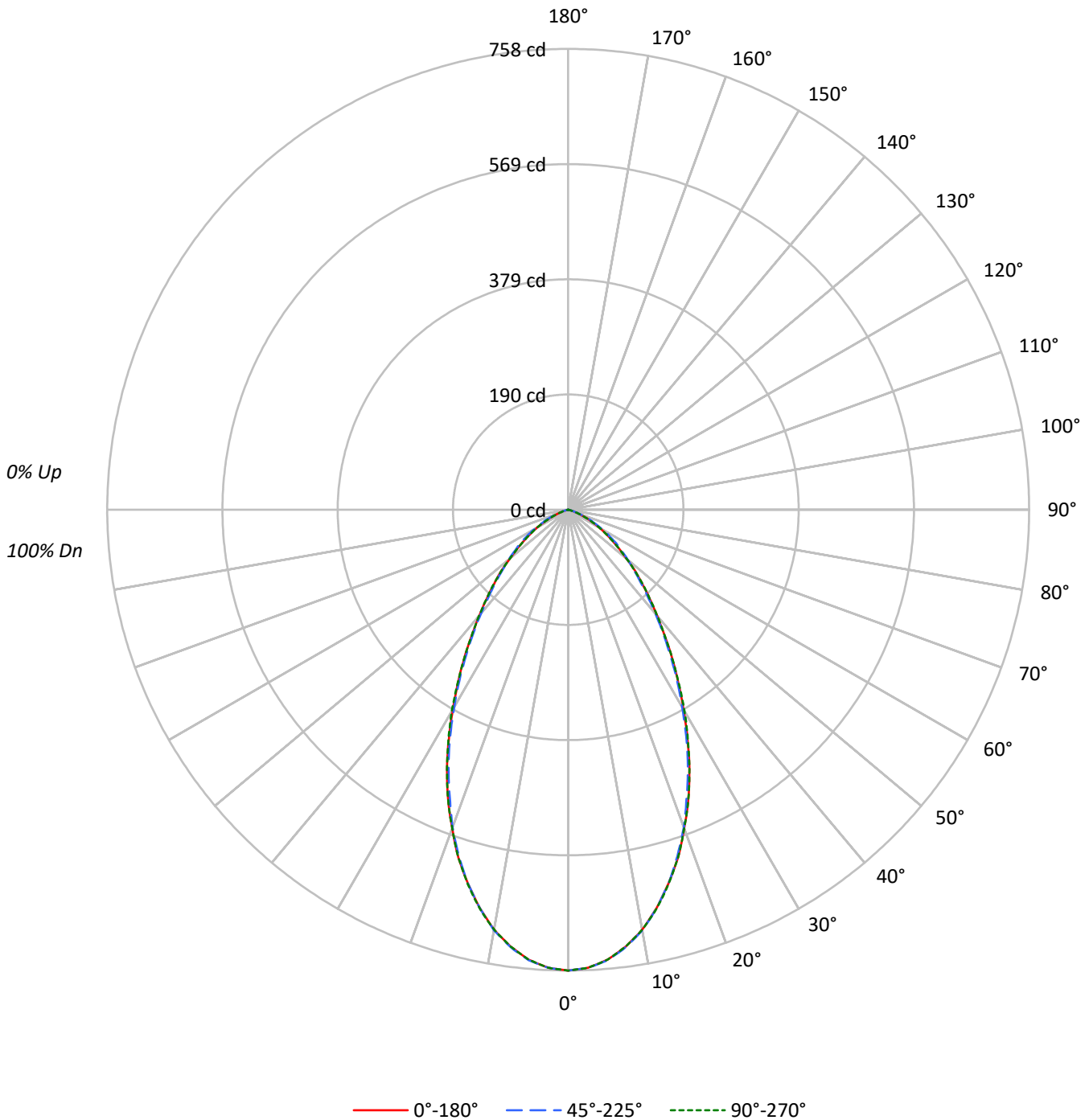
Input Watts (W): 10
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	106	103	110	107	104	102	103	100	98	99	97	95	95	94	93	91					91			
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82					82			
3	98	90	84	79	96	89	83	79	86	81	77	84	80	76	81	78	75	73					73			
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66					66			
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60					60			
6	81	70	63	58	79	69	62	58	68	62	57	66	61	57	65	60	56	55					55			
7	76	65	58	53	74	64	57	53	63	57	52	62	56	52	60	55	52	50					50			
8	72	60	53	49	70	60	53	48	59	52	48	57	52	48	56	51	48	46					46			
9	68	56	49	45	66	56	49	45	55	49	45	54	48	44	53	48	44	43					43			
10	64	53	46	42	63	52	46	42	51	46	41	51	45	41	50	45	41	40					40			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	58035	58035	58035
5°	57089	57166	57089
10°	54524	54601	54524
15°	50454	50454	50534
20°	45436	45265	45436
25°	39838	39323	39838
30°	33462	33100	33816
35°	27808	27332	27808
40°	22652	22252	22762
45°	18630	18186	18738
50°	14945	15183	14826
55°	11757	12838	11757
60°	8986	9920	8986
65°	6230	7154	6049
70°	3178	4073	3178
75°	296	1183	296
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.6	7.7
10°-20°	177.7	19.7
20°-30°	214.2	23.7
30°-40°	185.2	20.5
40°-50°	132.6	14.7
50°-60°	82.0	9.1
60°-70°	37.4	4.1
70°-80°	5.2	0.6
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°	461.5	51.1
0°-40°	646.7	71.6
0°-60°	861.2	95.3
0°-90°	903.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	903.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	758	758	758	758	758	
5°	743	743	744	743	743	70
15°	637	637	637	638	638	178
25°	472	469	466	470	472	215
35°	298	295	292	297	298	186
45°	172	170	168	171	173	134
55°	88	90	96	90	88	80
65°	34	38	40	38	33	34
75°	1	2	4	2	1	4
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°	758.2	758.2	758.2	758.2	758.2
2.5°	754.1	754.1	754.1	754.1	754.1
5°	743.0	743.0	744.0	743.0	743.0
7.5°	724.8	725.8	725.8	725.8	724.8
10°	701.5	701.5	702.5	701.5	701.5
12.5°	671.1	671.1	671.1	672.1	672.1
15°	636.7	636.7	636.7	637.7	637.7
17.5°	600.3	599.3	597.2	598.2	600.3
20°	557.8	556.7	555.7	556.7	557.8
22.5°	516.3	512.2	509.2	514.2	516.3
25°	471.7	468.7	465.6	469.7	471.7
27.5°	425.1	423.1	420.1	423.1	426.2
30°	378.6	378.6	374.5	378.6	382.6
32.5°	337.1	336.1	333.0	335.1	338.1
35°	297.6	294.6	292.5	296.6	297.6
37.5°	260.1	259.1	256.1	259.1	260.1
40°	226.7	224.7	222.7	225.7	227.8
42.5°	198.4	196.4	193.3	196.4	198.4
45°	172.1	170.1	168.0	171.1	173.1
47.5°	148.8	147.8	145.8	147.8	148.8
50°	125.5	127.5	127.5	126.5	124.5
52.5°	105.3	106.3	110.3	106.3	105.3
55°	88.1	90.1	96.2	90.1	88.1
57.5°	72.9	74.9	80.0	74.9	72.9
60°	58.7	61.7	64.8	61.7	58.7
62.5°	45.6	49.6	50.6	48.6	45.6
65°	34.4	37.5	39.5	37.5	33.4
67.5°	23.3	27.3	28.3	27.3	23.3
70°	14.2	18.2	18.2	18.2	14.2
72.5°	7.1	9.1	10.1	9.1	7.1
75°	1.0	2.0	4.0	2.0	1.0
77.5°	0.0	0.0	1.0	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)