

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: P241958

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

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P241958
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-58)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: PRS410D010-S4M12-41SNDC-4000K
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" NARROW DISTRIBUTION, DEEP TRIM SPECULAR
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 859.3 lumens
Efficiency: N/A
Efficacy: 85.9 lumens/watt
Spacing Criteria (0/90/45): 0.8 / 0.79 / 0.83
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')
CIE Type: Direct

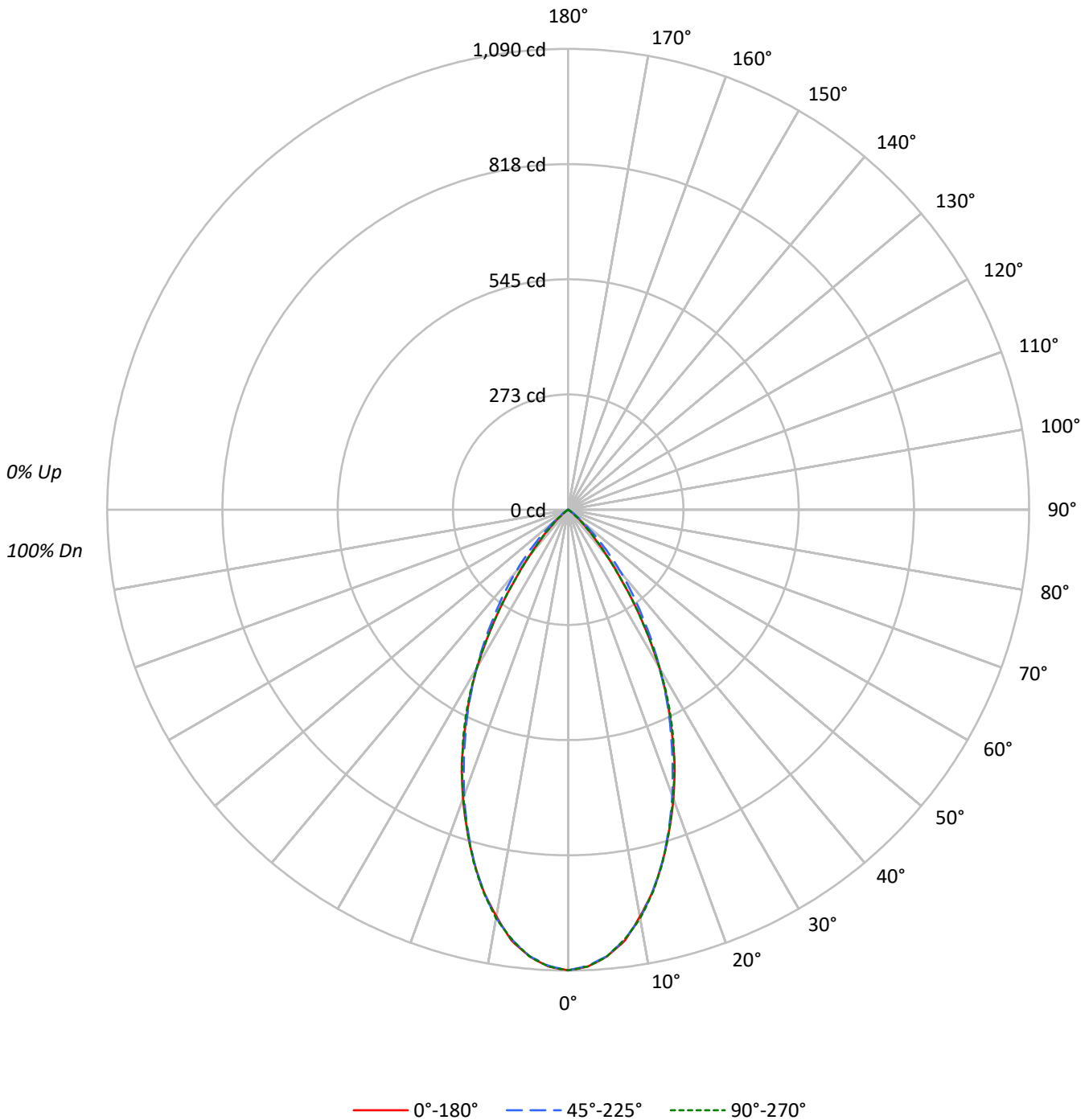
Input Watts (W): 10
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	114	111	108	106	111	109	106	104	105	103	101	101	100	98	97	96	95	94					94			
2	108	103	99	96	106	101	98	95	98	95	93	95	93	91	92	91	89	87					87			
3	103	96	91	87	101	95	90	87	92	88	85	90	87	84	87	85	83	81					81			
4	97	90	84	80	96	89	84	80	87	82	79	85	81	78	83	80	77	75					75			
5	92	84	78	74	91	83	78	74	81	77	73	80	76	72	78	75	72	70					70			
6	88	79	73	69	86	78	73	68	77	72	68	75	71	68	74	70	67	66					66			
7	83	74	68	64	82	74	68	64	72	67	63	71	67	63	70	66	63	61					61			
8	79	70	64	60	78	69	64	60	68	63	59	67	63	59	66	62	59	58					58			
9	76	66	60	56	75	66	60	56	65	59	56	64	59	56	63	59	55	54					54			
10	72	62	57	53	71	62	57	53	61	56	53	60	56	52	60	55	52	51					51			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	83394	83394	83394
5°	81461	81384	81461
10°	75952	76193	76271
15°	68300	68221	68379
20°	59251	58591	59080
25°	48959	48360	49466
30°	38094	38182	38271
35°	25426	28173	25519
40°	14249	19504	14049
45°	7231	11171	7004
50°	3013	4942	3013
55°	133	1895	133
60°	153	459	153
65°	0	0	0
70°	0	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.6	11.5
10°-20°	239.4	27.9
20°-30°	263.8	30.7
30°-40°	180.0	21.0
40°-50°	67.1	7.8
50°-60°	10.2	1.2
60°-70°	0.2	0.0
70°-80°	0.0	0.0
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°	601.7	70.0
0°-40°	781.8	91.0
0°-60°	859.0	100.0
0°-90°	859.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	859.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1090	1090	1090	1090	1090	
5°	1060	1060	1059	1059	1060	99
15°	862	861	861	861	863	240
25°	580	580	573	581	586	265
35°	272	288	302	289	273	170
45°	67	80	103	78	65	55
55°	1	8	14	8	1	6
65°	0	0	0	0	0	0
75°	0	0	0	0	0	0
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°	1089.5	1089.5	1089.5	1089.5	1089.5
2.5°	1081.4	1081.4	1079.4	1079.4	1081.4
5°	1060.2	1060.2	1059.2	1059.2	1060.2
7.5°	1027.8	1025.8	1024.8	1025.8	1024.8
10°	977.2	978.2	980.3	980.3	981.3
12.5°	924.6	923.6	923.6	925.6	925.6
15°	861.9	860.9	860.9	860.9	862.9
17.5°	794.1	794.1	791.1	793.1	794.1
20°	727.4	724.3	719.3	725.3	725.3
22.5°	657.6	652.5	644.4	653.5	654.5
25°	579.7	579.7	572.6	580.7	585.7
27.5°	506.8	502.8	502.8	505.8	510.9
30°	431.0	432.0	432.0	433.0	433.0
32.5°	349.0	360.1	366.2	360.1	349.0
35°	272.1	288.3	301.5	289.3	273.1
37.5°	198.3	221.5	245.8	220.5	199.3
40°	142.6	163.9	195.2	161.9	140.6
42.5°	97.1	116.3	146.7	113.3	97.1
45°	66.8	79.9	103.2	77.9	64.7
47.5°	43.5	53.6	66.8	52.6	43.5
50°	25.3	34.4	41.5	32.4	25.3
52.5°	12.1	19.2	24.3	19.2	12.1
55°	1.0	8.1	14.2	8.1	1.0
57.5°	1.0	1.0	7.1	1.0	1.0
60°	1.0	1.0	3.0	1.0	1.0
62.5°	0.0	0.0	1.0	0.0	0.0
65°	0.0	0.0	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	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)