

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: P241913

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

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P241913
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-55)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: PRS410D010-S4M12-41SNDH-4000K
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" NARROW DISTRIBUTION, DEEP TRIM HAZE
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 823.8 lumens
Efficiency: N/A
Efficacy: 82.4 lumens/watt
Spacing Criteria (0/90/45): 0.87 / 0.87 / 0.91
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')
CIE Type: Direct

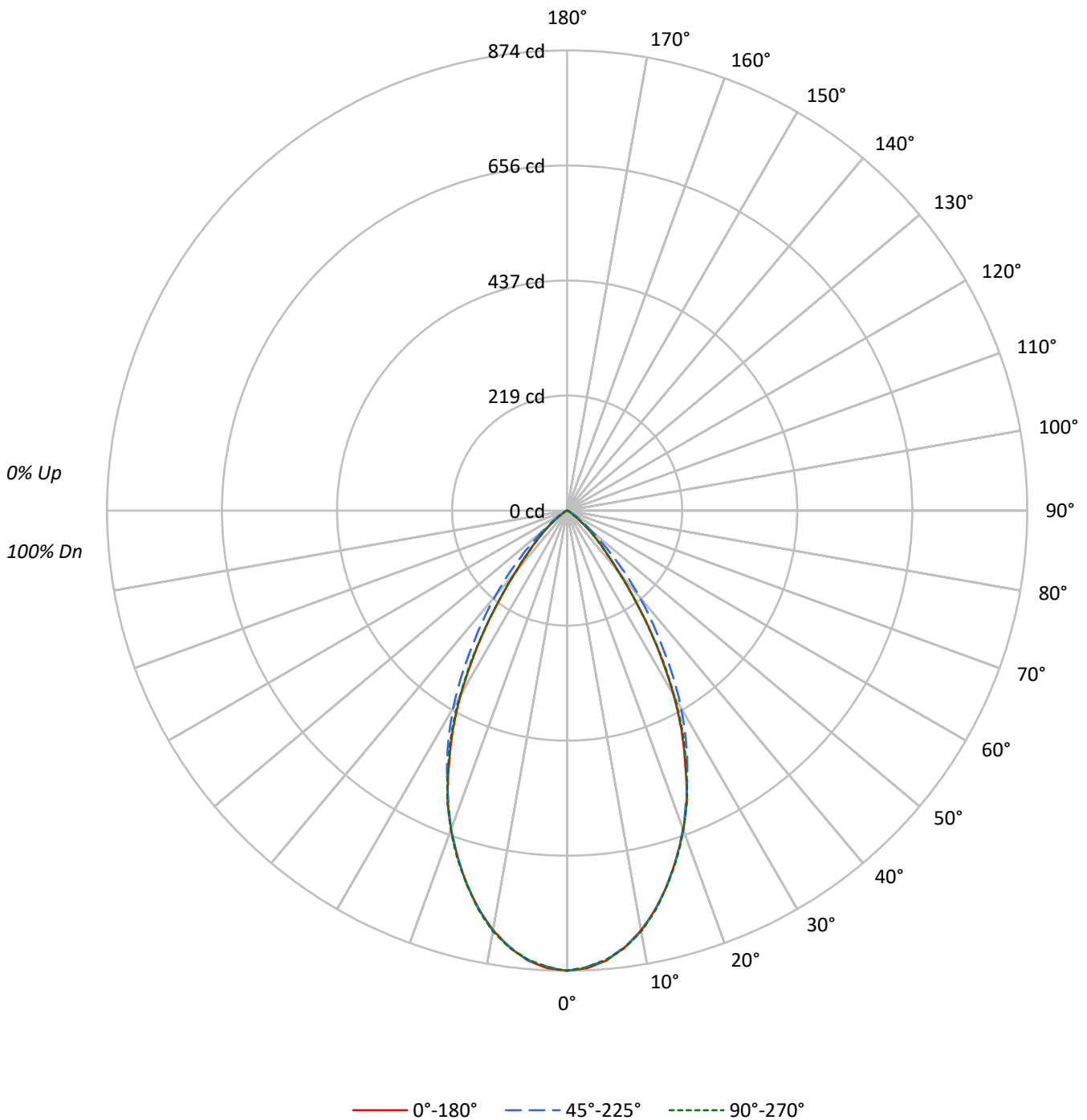
Input Watts (W): 10
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	113	110	108	105	111	108	106	104	104	102	100	100	99	97	97	96	95	93
2	107	102	98	94	105	100	96	93	97	94	91	94	91	89	91	89	87	86
3	101	95	89	85	99	93	88	84	91	86	83	88	85	82	86	83	81	79
4	96	88	82	78	94	87	81	77	85	80	76	83	79	75	81	77	74	73
5	91	82	76	71	89	81	75	71	79	74	70	77	73	70	76	72	69	67
6	86	76	70	66	84	76	70	65	74	69	65	73	68	64	71	67	64	63
7	81	72	65	61	80	71	65	61	70	64	60	68	64	60	67	63	60	58
8	77	67	61	57	76	67	61	56	65	60	56	64	59	56	63	59	56	54
9	73	63	57	53	72	63	57	53	62	56	52	61	56	52	60	55	52	51
10	70	59	53	49	69	59	53	49	58	53	49	57	52	49	57	52	49	48

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	66899	66899	66899
5°	65910	65833	65756
10°	62902	63058	63058
15°	58276	58196	58276
20°	52490	52409	52572
25°	44855	45623	45108
30°	35760	38271	36034
35°	25052	29397	24958
40°	15268	21323	15158
45°	9201	13358	8985
50°	5180	7228	5061
55°	1895	3777	1895
60°	1240	1852	1240
65°	724	1105	724
70°	448	671	448
75°	296	591	296
80°	441	441	441
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.3	9.7
10°-20°	205.2	24.9
20°-30°	244.7	29.7
30°-40°	182.3	22.1
40°-50°	81.7	9.9
50°-60°	22.2	2.7
60°-70°	5.4	0.7
70°-80°	1.7	0.2
80°-90°	0.3	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°	530.2	64.4
0°-40°	712.5	86.5
0°-60°	816.4	99.1
0°-90°	823.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	823.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	874	874	874	874	874	
5°	858	855	857	856	856	80
15°	735	734	734	736	735	205
25°	531	539	540	540	534	242
35°	268	292	315	292	267	168
45°	85	99	123	99	83	68
55°	14	22	28	22	14	17
65°	4	5	6	5	4	4
75°	1	2	2	2	1	1
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°	874.0	874.0	874.0	874.0	874.0
2.5°	870.0	868.0	866.9	866.9	868.0
5°	857.8	854.8	856.8	855.8	855.8
7.5°	836.6	836.6	835.6	837.6	837.6
10°	809.3	810.3	811.3	810.3	811.3
12.5°	774.9	773.9	775.9	776.9	776.9
15°	735.4	734.4	734.4	736.4	735.4
17.5°	690.9	691.9	690.9	691.9	692.9
20°	644.4	644.4	643.4	644.4	645.4
22.5°	593.8	593.8	590.8	592.8	594.8
25°	531.1	539.2	540.2	540.2	534.1
27.5°	470.4	476.5	487.6	478.5	475.5
30°	404.6	416.8	433.0	418.8	407.7
32.5°	334.8	357.1	374.3	355.1	337.9
35°	268.1	292.4	314.6	292.4	267.1
37.5°	205.4	231.7	262.0	232.7	205.4
40°	152.8	178.0	213.4	177.0	151.7
42.5°	113.3	134.5	166.9	133.5	113.3
45°	85.0	99.1	123.4	99.1	83.0
47.5°	61.7	73.8	88.0	72.8	61.7
50°	43.5	52.6	60.7	52.6	42.5
52.5°	27.3	35.4	41.5	35.4	27.3
55°	14.2	22.3	28.3	22.3	14.2
57.5°	10.1	12.1	18.2	12.1	10.1
60°	8.1	9.1	12.1	9.1	8.1
62.5°	6.1	7.1	7.1	7.1	6.1
65°	4.0	5.1	6.1	5.1	4.0
67.5°	3.0	4.0	4.0	4.0	3.0
70°	2.0	3.0	3.0	3.0	2.0
72.5°	2.0	2.0	2.0	2.0	2.0
75°	1.0	2.0	2.0	2.0	1.0
77.5°	1.0	1.0	1.0	1.0	1.0
80°	1.0	1.0	1.0	1.0	1.0
82.5°	0.0	1.0	1.0	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)