

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: P252945

Luminaire Tested: **PRS420D010-S4M12-41SWDH-3000K**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P252945
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: PRS420D010-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: 1716.7 lumens
Efficiency: N/A
Efficacy: 85.8 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

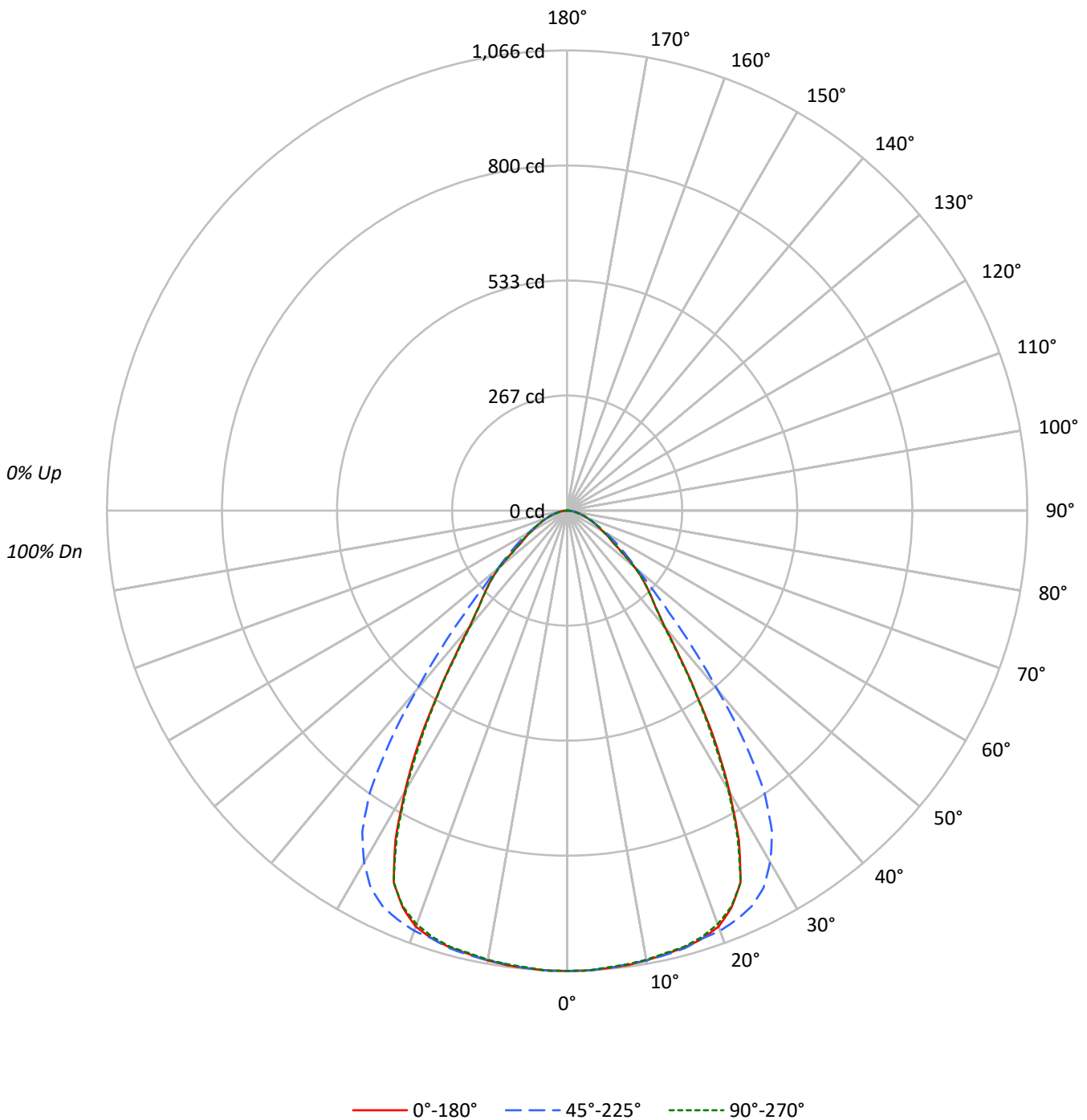
Input Watts (W): 20
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	112	108	105	102	109	106	103	100	102	99	97	98	96	94	95	93	92	90
2	104	98	93	88	102	96	91	87	93	89	86	90	86	84	87	84	82	80
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	76	73	72
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64
5	85	75	67	62	83	74	67	62	72	66	61	70	65	60	68	64	60	58
6	80	69	61	56	78	68	61	56	66	60	55	65	59	55	63	58	55	53
7	75	63	56	51	73	63	56	51	61	55	51	60	54	50	59	54	50	48
8	70	59	52	47	69	58	51	47	57	51	46	56	50	46	55	50	46	44
9	66	55	48	43	65	54	47	43	53	47	43	52	47	42	51	46	42	41
10	63	51	44	40	61	51	44	40	50	44	39	49	43	39	48	43	39	38

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	81626	81626	81626
5°	81776	81776	81623
10°	82248	82248	82092
15°	83055	83214	82897
20°	83549	84380	83060
25°	80284	85428	80284
30°	66421	83117	65882
35°	49160	74399	48777
40°	35112	54187	34702
45°	29238	36058	29238
50°	24423	25150	24423
55°	17348	20057	17615
60°	14620	15860	14620
65°	12515	12877	12515
70°	10899	10899	10899
75°	9612	9612	9612
80°	8067	8067	8067
85°	7114	7114	7114



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.3	5.9
10°-20°	296.1	17.2
20°-30°	442.5	25.8
30°-40°	393.9	22.9
40°-50°	234.4	13.7
50°-60°	132.8	7.7
60°-70°	71.2	4.1
70°-80°	34.9	2.0
80°-90°	9.7	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°	840.0	48.9
0°-40°	1233.9	71.9
0°-60°	1601.0	93.3
0°-90°	1716.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1716.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1066	1066	1066	1066	1066	
5°	1064	1064	1064	1064	1062	101
15°	1048	1048	1050	1046	1046	296
25°	951	977	1012	975	951	424
35°	526	615	796	613	522	332
45°	270	290	333	288	270	210
55°	130	144	150	144	132	124
65°	69	71	71	71	69	70
75°	32	32	32	32	32	35
85°	8	8	8	8	8	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1066.4	1066.4	1066.4	1066.4	1066.4
2.5°	1066.4	1066.4	1066.4	1066.4	1066.4
5°	1064.3	1064.3	1064.3	1064.3	1062.3
7.5°	1062.3	1060.3	1060.3	1060.3	1060.3
10°	1058.2	1058.2	1058.2	1056.2	1056.2
12.5°	1052.2	1052.2	1054.2	1052.2	1050.1
15°	1048.1	1048.1	1050.1	1046.1	1046.1
17.5°	1040.0	1042.0	1040.0	1040.0	1035.9
20°	1025.7	1031.8	1035.9	1029.8	1019.7
22.5°	995.3	1011.5	1025.7	1009.5	993.2
25°	950.6	977.0	1011.5	975.0	950.6
27.5°	861.2	928.3	985.1	922.2	855.1
30°	751.5	832.8	940.4	826.7	745.4
32.5°	641.9	723.1	883.6	719.0	631.7
35°	526.1	615.4	796.2	613.4	522.0
37.5°	428.6	509.8	674.4	505.8	424.5
40°	351.4	414.4	542.3	412.3	347.3
42.5°	302.6	337.2	428.6	335.1	302.6
45°	270.1	290.5	333.1	288.4	270.1
47.5°	239.7	255.9	262.0	253.9	239.7
50°	205.1	223.4	211.2	223.4	205.1
52.5°	162.5	184.8	176.7	186.9	160.5
55°	130.0	144.2	150.3	144.2	132.0
57.5°	113.7	117.8	125.9	117.8	113.7
60°	95.5	99.5	103.6	99.5	95.5
62.5°	81.2	85.3	85.3	85.3	83.3
65°	69.1	71.1	71.1	71.1	69.1
67.5°	58.9	58.9	58.9	58.9	58.9
70°	48.7	48.7	48.7	48.7	48.7
72.5°	40.6	40.6	40.6	40.6	40.6
75°	32.5	32.5	32.5	32.5	32.5
77.5°	26.4	26.4	24.4	26.4	24.4
80°	18.3	18.3	18.3	18.3	18.3
82.5°	14.2	14.2	14.2	14.2	14.2
85°	8.1	8.1	8.1	8.1	8.1
87.5°	4.1	4.1	4.1	4.1	4.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)