

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: P252940

Luminaire Tested: **PRS420D010-S4M12-41SWDC-4000K**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P252940
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-S4M12-41SWDC-4000K
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" WIDE 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: 1936.7 lumens
Efficiency: N/A
Efficacy: 96.8 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

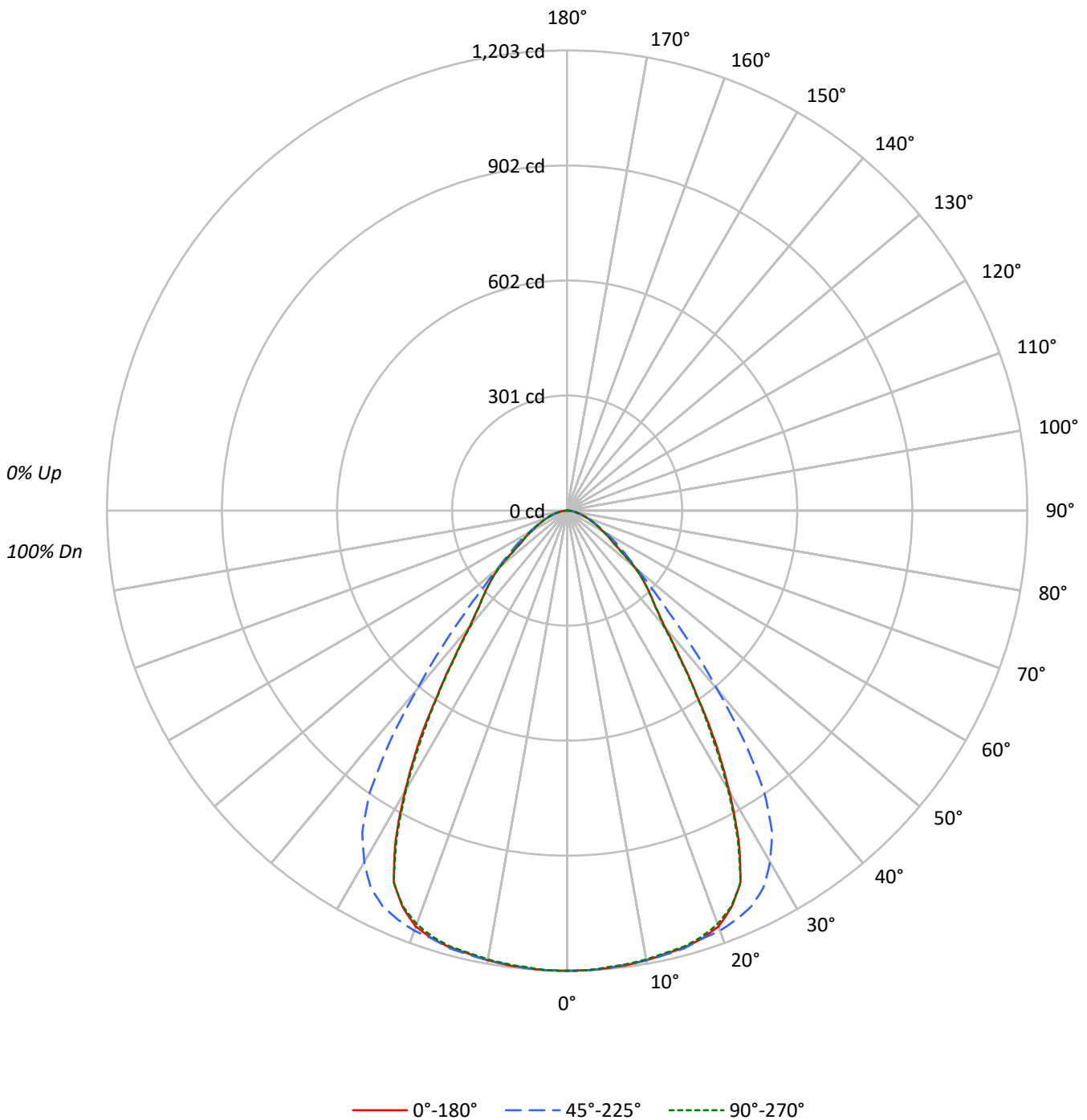
Input Watts (W): 20
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	92082	92082	92082
5°	92257	92257	92080
10°	92787	92787	92608
15°	93690	93872	93507
20°	94252	95189	93699
25°	90571	96373	90571
30°	74933	93767	74323
35°	55458	83930	55028
40°	39608	61131	39149
45°	32994	40680	32994
50°	27555	28377	27555
55°	19564	22633	19871
60°	16487	17896	16487
65°	14109	14526	14109
70°	12309	12309	12309
75°	10854	10854	10854
80°	9080	9080	9080
85°	8080	8080	8080



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.3	5.9
10°-20°	334.1	17.2
20°-30°	499.2	25.8
30°-40°	444.4	22.9
40°-50°	264.4	13.7
50°-60°	149.8	7.7
60°-70°	80.3	4.1
70°-80°	39.3	2.0
80°-90°	10.9	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°	947.6	48.9
0°-40°	1391.9	71.9
0°-60°	1806.1	93.3
0°-90°	1936.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1936.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1203	1203	1203	1203	1203	
5°	1201	1201	1201	1201	1198	114
15°	1182	1182	1185	1180	1180	334
25°	1072	1102	1141	1100	1072	478
35°	594	694	898	692	589	375
45°	305	328	376	325	305	237
55°	147	163	170	163	149	140
65°	78	80	80	80	78	78
75°	37	37	37	37	37	40
85°	9	9	9	9	9	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1203.0	1203.0	1203.0	1203.0	1203.0
2.5°	1203.0	1203.0	1203.0	1203.0	1203.0
5°	1200.7	1200.7	1200.7	1200.7	1198.4
7.5°	1198.4	1196.1	1196.1	1196.1	1196.1
10°	1193.8	1193.8	1193.8	1191.5	1191.5
12.5°	1186.9	1186.9	1189.2	1186.9	1184.6
15°	1182.3	1182.3	1184.6	1180.0	1180.0
17.5°	1173.2	1175.5	1173.2	1173.2	1168.6
20°	1157.1	1164.0	1168.6	1161.7	1150.3
22.5°	1122.8	1141.1	1157.1	1138.8	1120.5
25°	1072.4	1102.1	1141.1	1099.9	1072.4
27.5°	971.5	1047.2	1111.3	1040.3	964.7
30°	847.8	939.5	1060.9	932.6	840.9
32.5°	724.1	815.7	996.7	811.1	712.6
35°	593.5	694.3	898.2	692.0	588.9
37.5°	483.5	575.1	760.7	570.5	478.9
40°	396.4	467.4	611.8	465.1	391.8
42.5°	341.4	380.4	483.5	378.1	341.4
45°	304.8	327.7	375.8	325.4	304.8
47.5°	270.4	288.7	295.6	286.4	270.4
50°	231.4	252.0	238.3	252.0	231.4
52.5°	183.3	208.5	199.3	210.8	181.0
55°	146.6	162.7	169.6	162.7	148.9
57.5°	128.3	132.9	142.1	132.9	128.3
60°	107.7	112.3	116.9	112.3	107.7
62.5°	91.7	96.2	96.2	96.2	93.9
65°	77.9	80.2	80.2	80.2	77.9
67.5°	66.4	66.4	66.4	66.4	66.4
70°	55.0	55.0	55.0	55.0	55.0
72.5°	45.8	45.8	45.8	45.8	45.8
75°	36.7	36.7	36.7	36.7	36.7
77.5°	29.8	29.8	27.5	29.8	27.5
80°	20.6	20.6	20.6	20.6	20.6
82.5°	16.0	16.0	16.0	16.0	16.0
85°	9.2	9.2	9.2	9.2	9.2
87.5°	4.6	4.6	4.6	4.6	4.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)