

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: P241930

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

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P241930
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-56)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: PRS420D010-S4M12-41SMDH-4000K
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM 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: 1929.4 lumens
Efficiency: N/A
Efficacy: 96.5 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.95 / 0.98
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')
CIE Type: Direct

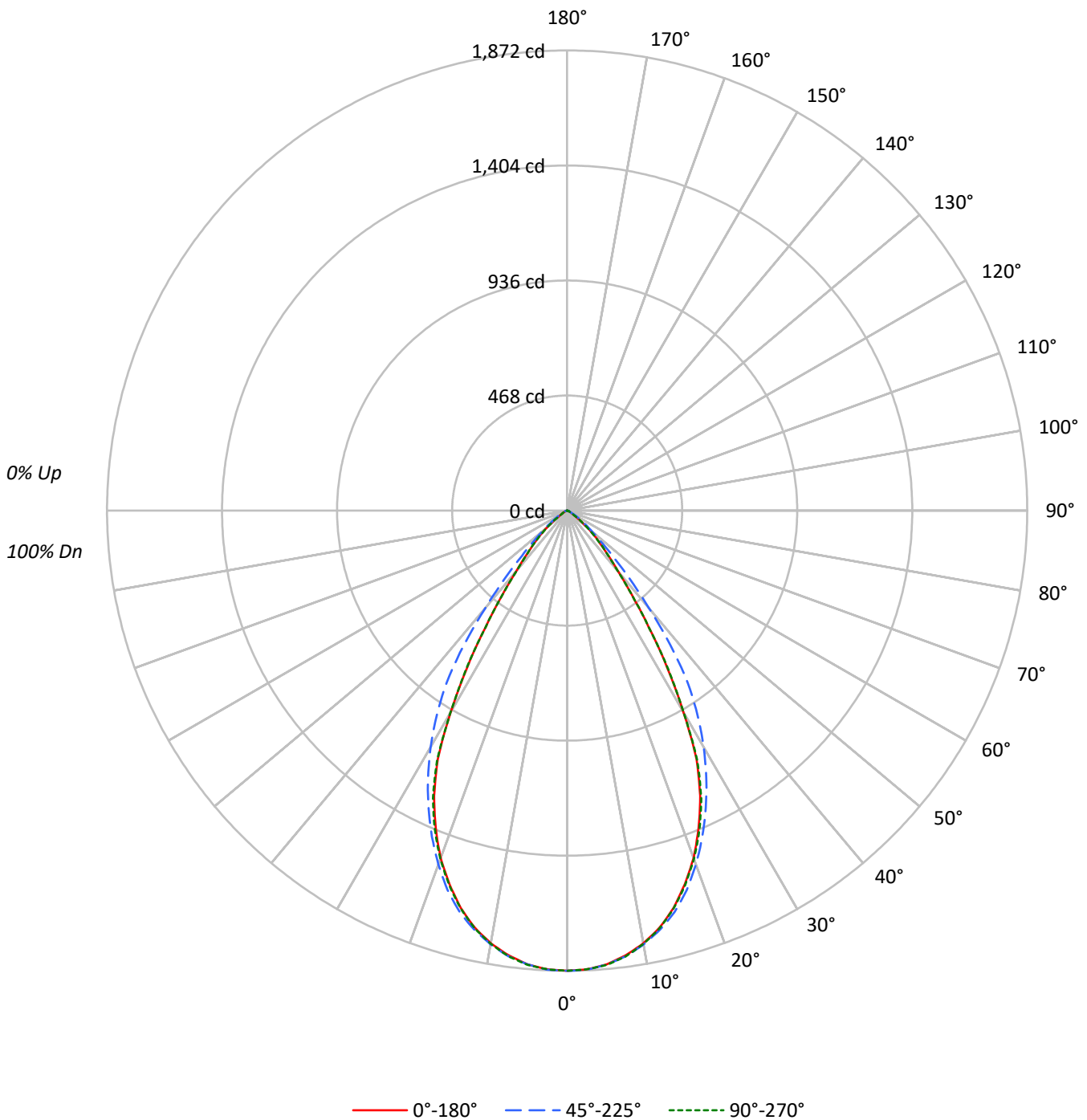
Input Watts (W): 20
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	97	96	95	93		
1	113	110	108	105	111	108	106	104	104	102	100	100	99	97	97	96	95	93	93	93	91	89	87	85		
2	107	102	98	94	105	100	96	93	97	94	91	94	91	89	91	89	87	85	85	85	83	82	80	79		
3	101	94	89	85	99	93	88	84	90	86	83	88	84	82	86	83	80	79	79	79	77	75	74	73		
4	96	88	82	77	94	87	81	77	84	80	76	82	78	75	80	77	74	73	73	73	71	69	69	67		
5	90	82	75	71	89	81	75	71	79	74	70	77	73	69	76	72	69	67	67	67	65	64	62	62		
6	86	76	70	65	84	75	69	65	74	68	65	72	68	64	71	67	64	62	62	62	60	59	58	58		
7	81	71	65	60	80	71	64	60	69	64	60	68	63	60	67	62	59	58	58	58	56	55	54	54		
8	77	67	60	56	76	66	60	56	65	60	56	64	59	55	63	59	55	54	54	54	52	52	50	50		
9	73	63	56	52	72	62	56	52	61	56	52	60	55	52	59	55	52	50	50	50	48	47	47	47		
10	69	59	53	49	68	59	53	49	58	52	49	57	52	49	56	52	48	47	47	47	45	44	43	42		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	143305	143305	143305
5°	142354	142354	142523
10°	138948	139290	139119
15°	132567	133937	132733
20°	122501	124790	122852
25°	108163	112732	109075
30°	83700	98248	83886
35°	53860	79977	53860
40°	32044	51749	31825
45°	20643	28145	20643
50°	12646	15742	12384
55°	5205	8968	5205
60°	3322	4639	3322
65°	1956	2753	1956
70°	1455	1947	1455
75°	1272	1272	651
80°	970	970	970
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	174.9	9.1
10°-20°	469.7	24.3
20°-30°	595.4	30.9
30°-40°	434.9	22.5
40°-50°	180.8	9.4
50°-60°	54.6	2.8
60°-70°	13.9	0.7
70°-80°	4.4	0.2
80°-90°	0.7	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°	1240.0	64.3
0°-40°	1674.9	86.8
0°-60°	1910.3	99.0
0°-90°	1929.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1929.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1872	1872	1872	1872	1872	
5°	1853	1853	1853	1853	1855	175
15°	1673	1682	1690	1682	1675	467
25°	1281	1311	1335	1320	1292	576
35°	576	676	856	676	576	369
45°	191	219	260	217	191	152
55°	39	54	67	54	39	44
65°	11	13	15	13	11	12
75°	4	4	4	4	2	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°	1872.2	1872.2	1872.2	1872.2	1872.2
2.5°	1867.9	1867.9	1870.1	1867.9	1867.9
5°	1852.7	1852.7	1852.7	1852.7	1854.9
7.5°	1824.6	1826.7	1828.9	1826.7	1828.9
10°	1787.7	1789.9	1792.1	1792.1	1789.9
12.5°	1737.9	1742.2	1746.5	1742.2	1740.0
15°	1672.9	1681.5	1690.2	1681.5	1675.0
17.5°	1592.7	1601.4	1618.7	1603.5	1597.0
20°	1503.9	1516.9	1532.0	1519.0	1508.2
22.5°	1397.7	1421.5	1436.7	1421.5	1406.3
25°	1280.7	1311.0	1334.8	1319.7	1291.5
27.5°	1139.8	1191.8	1226.5	1198.3	1146.3
30°	947.0	1038.0	1111.6	1046.6	949.1
32.5°	758.4	853.8	988.1	858.1	762.8
35°	576.4	676.1	855.9	676.1	576.4
37.5°	431.2	520.1	691.3	513.6	431.2
40°	320.7	387.9	517.9	383.5	318.5
42.5°	247.0	288.2	374.9	286.0	244.9
45°	190.7	218.9	260.0	216.7	190.7
47.5°	147.4	166.9	184.2	166.9	145.2
50°	106.2	125.7	132.2	125.7	104.0
52.5°	67.2	88.8	95.3	86.7	69.3
55°	39.0	54.2	67.2	54.2	39.0
57.5°	28.2	32.5	47.7	32.5	28.2
60°	21.7	23.8	30.3	23.8	21.7
62.5°	15.2	17.3	19.5	17.3	15.2
65°	10.8	13.0	15.2	13.0	10.8
67.5°	8.7	10.8	10.8	10.8	8.7
70°	6.5	6.5	8.7	6.5	6.5
72.5°	4.3	4.3	6.5	6.5	4.3
75°	4.3	4.3	4.3	4.3	2.2
77.5°	2.2	2.2	4.3	2.2	2.2
80°	2.2	2.2	2.2	2.2	2.2
82.5°	0.0	2.2	2.2	2.2	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)