

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: P241965

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

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P241965
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-59)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: PRS420D010-S4M12-41SMDC-3000K
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM DISTRIBUTION, DEEP TRIM SPECULAR
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1943.7 lumens
Efficiency: N/A
Efficacy: 97.2 lumens/watt
Spacing Criteria (0/90/45): 0.82 / 0.82 / 0.85
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')
CIE Type: Direct

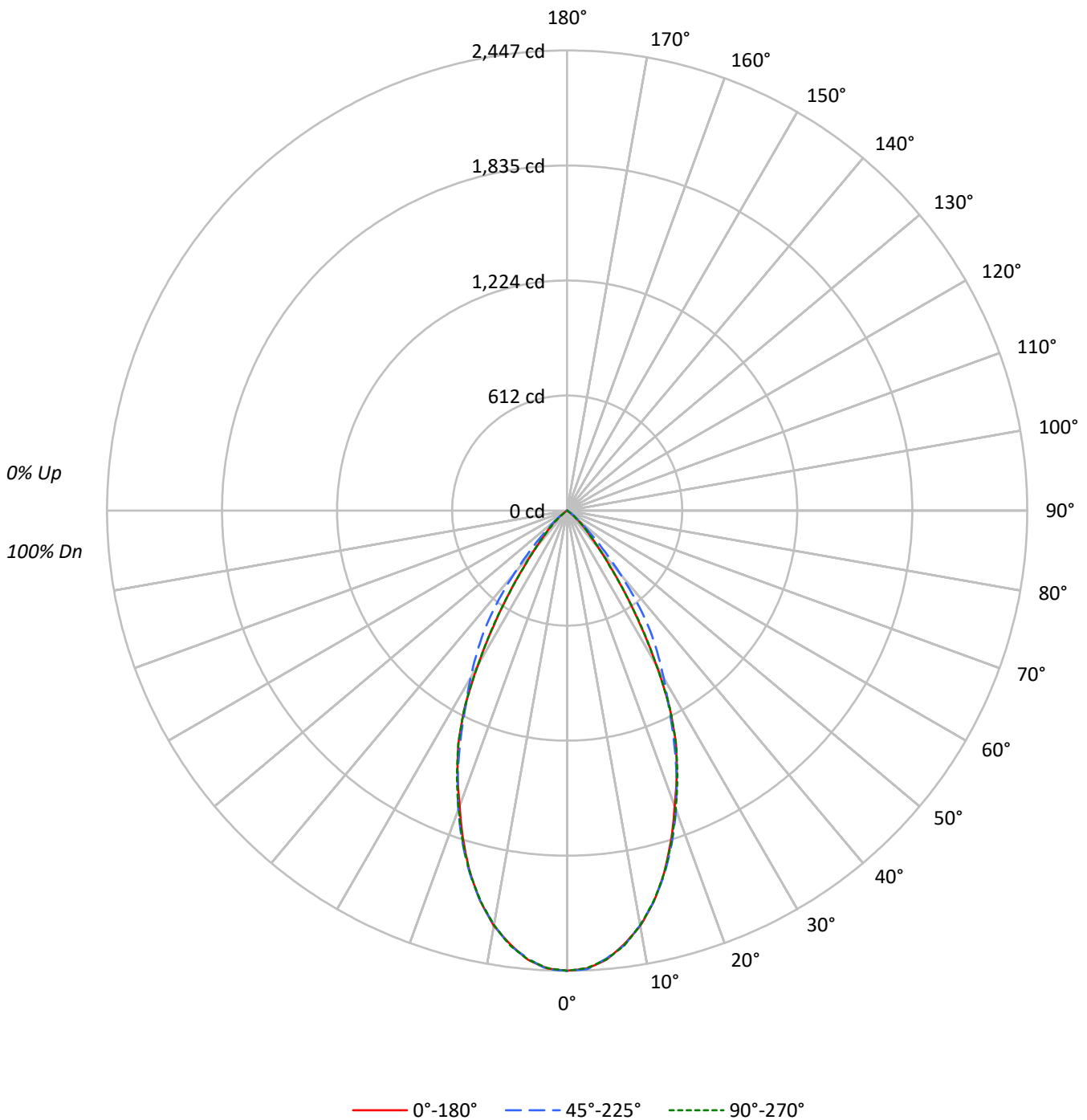
Input Watts (W): 20
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	114	111	108	106	111	109	107	105	105	103	101	101	100	98	98	96	95	94
2	108	103	99	96	106	102	98	95	98	95	93	95	93	91	93	91	89	87
3	103	96	92	88	101	95	91	87	92	89	86	90	87	84	88	85	83	81
4	98	90	85	81	96	89	84	80	87	83	79	85	81	78	83	80	77	76
5	93	85	79	75	91	84	78	74	82	77	74	80	76	73	79	75	72	71
6	88	79	73	69	87	79	73	69	77	72	69	76	71	68	74	71	68	66
7	84	75	69	65	83	74	68	64	73	68	64	72	67	64	70	66	63	62
8	80	70	65	61	79	70	64	60	69	64	60	68	63	60	67	63	60	58
9	76	67	61	57	75	66	61	57	65	60	57	64	60	56	63	59	56	55
10	73	63	57	54	72	63	57	53	62	57	53	61	56	53	60	56	53	52

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	187309	187309	187309
5°	184214	183737	184052
10°	174297	173970	173970
15°	158043	158376	158043
20°	136194	137880	137375
25°	115553	113112	115553
30°	84027	90603	83851
35°	50403	70493	50216
40°	26229	43365	26019
45°	14321	20578	13867
50°	6395	8610	6156
55°	547	3590	280
60°	321	949	321
65°	0	380	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°	223.7	11.5
10°-20°	554.0	28.5
20°-30°	617.5	31.8
30°-40°	397.5	20.5
40°-50°	129.6	6.7
50°-60°	20.3	1.0
60°-70°	1.0	0.1
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°	1395.2	71.8
0°-40°	1792.8	92.2
0°-60°	1942.7	99.9
0°-90°	1943.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1943.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2447	2447	2447	2447	2447	
5°	2398	2398	2391	2400	2395	224
15°	1994	1994	1999	1999	1994	553
25°	1368	1366	1339	1366	1368	613
35°	539	622	754	620	537	345
45°	132	151	190	147	128	107
55°	4	16	27	16	2	13
65°	0	0	2	0	0	1
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°	2447.1	2447.1	2447.1	2447.1	2447.1
2.5°	2436.7	2438.8	2440.9	2438.8	2434.7
5°	2397.5	2397.5	2391.3	2399.5	2395.4
7.5°	2325.1	2327.2	2331.3	2327.2	2331.3
10°	2242.5	2238.3	2238.3	2238.3	2238.3
12.5°	2128.8	2126.7	2128.8	2126.7	2126.7
15°	1994.4	1994.4	1998.6	1998.6	1994.4
17.5°	1837.4	1841.5	1851.8	1849.8	1845.6
20°	1672.0	1680.3	1692.7	1682.4	1686.5
22.5°	1523.2	1514.9	1519.1	1514.9	1531.5
25°	1368.2	1366.1	1339.3	1366.1	1368.2
27.5°	1178.1	1207.0	1167.7	1209.1	1178.1
30°	950.7	1023.1	1025.1	1031.3	948.7
32.5°	729.6	814.3	890.8	818.4	737.8
35°	539.4	622.1	754.4	620.0	537.4
37.5°	376.2	450.6	597.3	448.5	372.0
40°	262.5	312.1	434.0	314.2	260.4
42.5°	183.9	217.0	295.5	210.8	181.9
45°	132.3	150.9	190.1	146.7	128.1
47.5°	90.9	105.4	117.8	103.3	88.9
50°	53.7	70.3	72.3	70.3	51.7
52.5°	24.8	39.3	45.5	39.3	24.8
55°	4.1	16.5	26.9	16.5	2.1
57.5°	2.1	2.1	14.5	2.1	2.1
60°	2.1	2.1	6.2	2.1	2.1
62.5°	2.1	2.1	2.1	2.1	2.1
65°	0.0	0.0	2.1	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)