

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: P241925

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

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P241925
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
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM DISTRIBUTION, DEEP TRIM HAZE
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

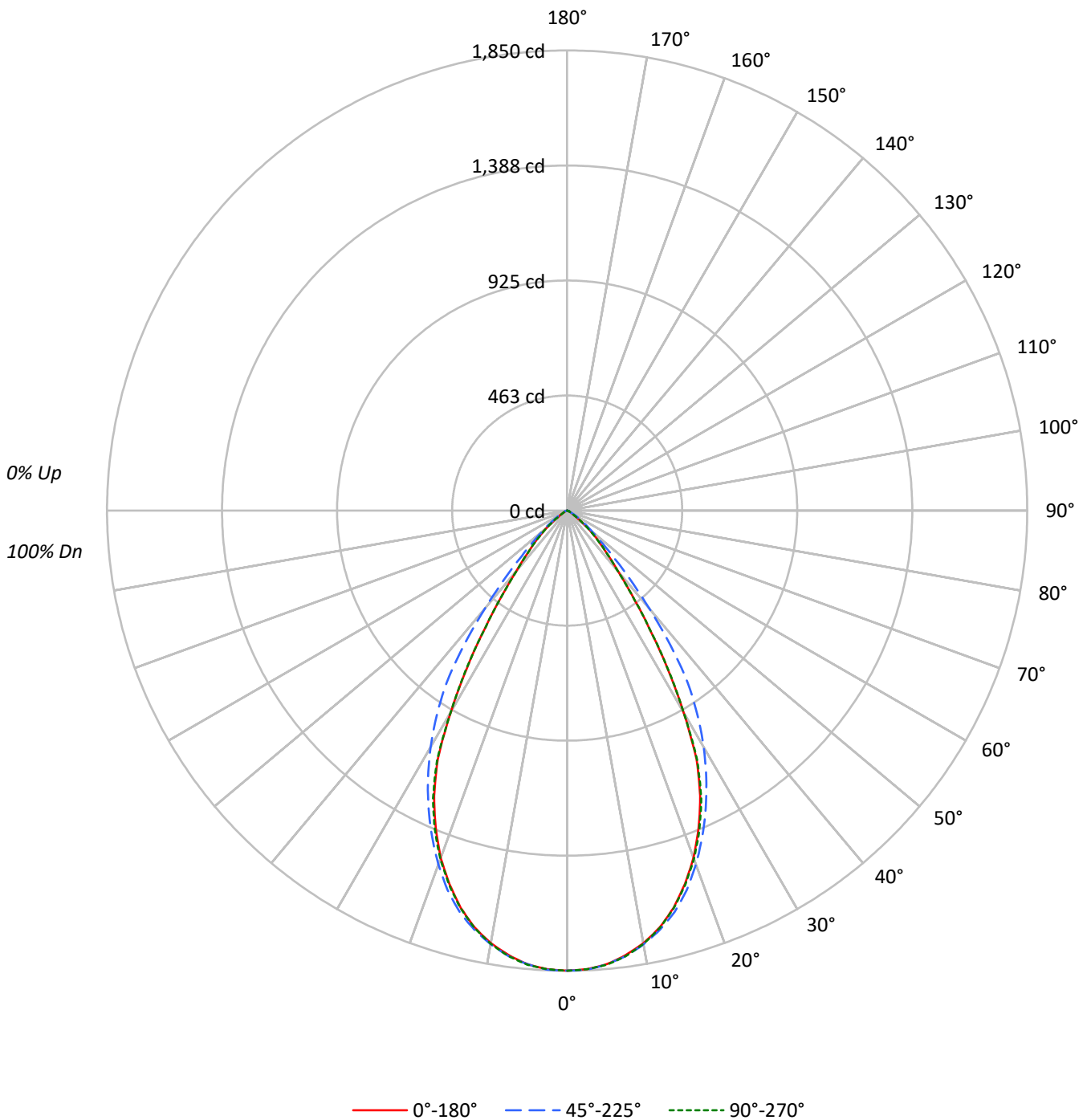
Lumens per Lamp: N/A
Luminaire Lumens: 1906.2 lumens
Efficiency: N/A
Efficacy: 95.3 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.95 / 0.98
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	141590	141590	141590
5°	140656	140656	140817
10°	137284	137618	137455
15°	130982	132337	131148
20°	121035	123300	121377
25°	106863	111389	107766
30°	82693	97073	82887
35°	53215	79024	53215
40°	31665	51129	31445
45°	20394	27809	20394
50°	12492	15552	12241
55°	5138	8861	5138
60°	3276	4593	3276
65°	1938	2717	1938
70°	1432	1925	1432
75°	1272	1272	621
80°	926	926	926
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	172.8	9.1
10°-20°	464.1	24.3
20°-30°	588.2	30.9
30°-40°	429.7	22.5
40°-50°	178.6	9.4
50°-60°	53.9	2.8
60°-70°	13.8	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°	1225.1	64.3
0°-40°	1654.9	86.8
0°-60°	1887.4	99.0
0°-90°	1906.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1906.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1850	1850	1850	1850	1850	
5°	1831	1831	1831	1831	1833	173
15°	1653	1661	1670	1661	1655	461
25°	1265	1295	1319	1304	1276	569
35°	570	668	846	668	570	365
45°	188	216	257	214	188	151
55°	38	54	66	54	38	43
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°	1849.8	1849.8	1849.8	1849.8	1849.8
2.5°	1845.5	1845.5	1847.7	1845.5	1845.5
5°	1830.6	1830.6	1830.6	1830.6	1832.7
7.5°	1802.7	1804.9	1807.0	1804.9	1807.0
10°	1766.3	1768.5	1770.6	1770.6	1768.5
12.5°	1717.1	1721.4	1725.7	1721.4	1719.2
15°	1652.9	1661.4	1670.0	1661.4	1655.0
17.5°	1573.6	1582.2	1599.3	1584.3	1577.9
20°	1485.9	1498.7	1513.7	1500.8	1490.1
22.5°	1380.9	1404.5	1419.5	1404.5	1389.5
25°	1265.3	1295.3	1318.9	1303.9	1276.0
27.5°	1126.2	1177.6	1211.8	1184.0	1132.6
30°	935.6	1025.5	1098.3	1034.1	937.8
32.5°	749.4	843.6	976.3	847.8	753.6
35°	569.5	668.0	845.7	668.0	569.5
37.5°	426.1	513.8	683.0	507.4	426.1
40°	316.9	383.2	511.7	379.0	314.7
42.5°	244.1	284.8	370.4	282.6	241.9
45°	188.4	216.2	256.9	214.1	188.4
47.5°	145.6	164.9	182.0	164.9	143.4
50°	104.9	124.2	130.6	124.2	102.8
52.5°	66.4	87.8	94.2	85.6	68.5
55°	38.5	53.5	66.4	53.5	38.5
57.5°	27.8	32.1	47.1	32.1	27.8
60°	21.4	23.6	30.0	23.6	21.4
62.5°	15.0	17.1	19.3	17.1	15.0
65°	10.7	12.8	15.0	12.8	10.7
67.5°	8.6	10.7	10.7	10.7	8.6
70°	6.4	6.4	8.6	6.4	6.4
72.5°	4.3	4.3	6.4	6.4	4.3
75°	4.3	4.3	4.3	4.3	2.1
77.5°	2.1	2.1	4.3	2.1	2.1
80°	2.1	2.1	2.1	2.1	2.1
82.5°	0.0	2.1	2.1	2.1	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)