

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: P241920

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

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P241920
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-3000K
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM 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: 1840.3 lumens
Efficiency: N/A
Efficacy: 92.0 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

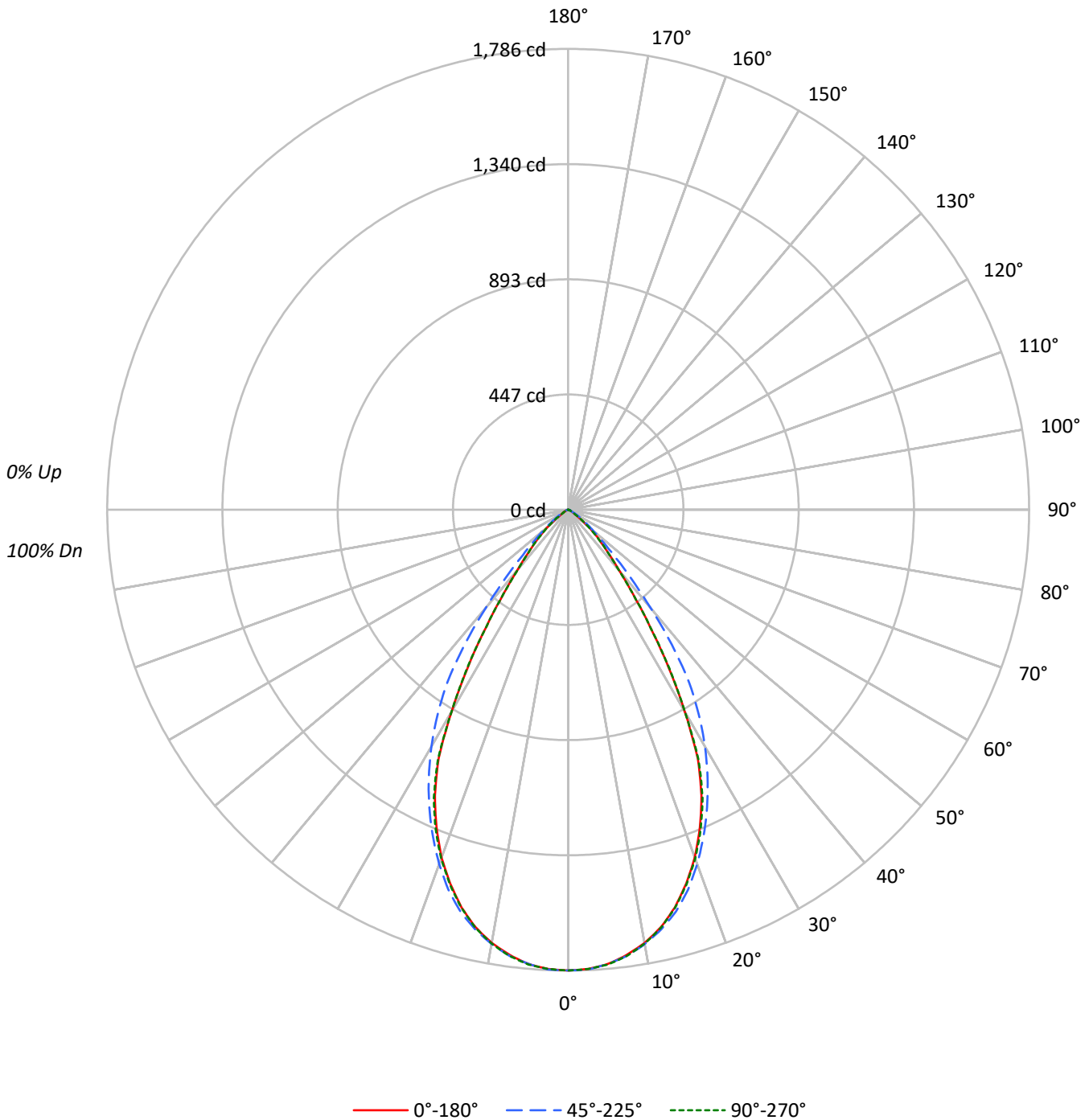
Input Watts (W): 20
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	62	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°	136691	136691	136691
5°	135784	135784	135946
10°	132535	132854	132699
15°	126449	127756	126607
20°	116840	119031	117182
25°	103172	107530	104042
30°	79829	93714	80015
35°	51375	76286	51375
40°	30566	49361	30356
45°	19690	26846	19690
50°	12063	15016	11813
55°	4964	8554	4964
60°	3169	4424	3169
65°	1866	2626	1866
70°	1388	1858	1388
75°	1213	1213	621
80°	926	926	926
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	166.8	9.1
10°-20°	448.0	24.3
20°-30°	567.9	30.9
30°-40°	414.9	22.5
40°-50°	172.4	9.4
50°-60°	52.1	2.8
60°-70°	13.3	0.7
70°-80°	4.2	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°	1182.7	64.3
0°-40°	1597.6	86.8
0°-60°	1822.1	99.0
0°-90°	1840.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1840.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1786	1786	1786	1786	1786	
5°	1767	1767	1767	1767	1769	167
15°	1596	1604	1612	1604	1598	446
25°	1222	1250	1273	1259	1232	550
35°	550	645	816	645	550	352
45°	182	209	248	207	182	145
55°	37	52	64	52	37	42
65°	10	12	14	12	10	11
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°	1785.8	1785.8	1785.8	1785.8	1785.8
2.5°	1781.7	1781.7	1783.8	1781.7	1781.7
5°	1767.2	1767.2	1767.2	1767.2	1769.3
7.5°	1740.3	1742.4	1744.5	1742.4	1744.5
10°	1705.2	1707.3	1709.3	1709.3	1707.3
12.5°	1657.7	1661.8	1665.9	1661.8	1659.7
15°	1595.7	1603.9	1612.2	1603.9	1597.7
17.5°	1519.2	1527.5	1544.0	1529.5	1523.3
20°	1434.4	1446.8	1461.3	1448.9	1438.6
22.5°	1333.2	1355.9	1370.4	1355.9	1341.4
25°	1221.6	1250.5	1273.2	1258.8	1231.9
27.5°	1087.2	1136.8	1169.9	1143.0	1093.4
30°	903.2	990.1	1060.3	998.3	905.3
32.5°	723.4	814.4	942.5	818.5	727.6
35°	549.8	644.9	816.4	644.9	549.8
37.5°	411.3	496.1	659.3	489.9	411.3
40°	305.9	370.0	494.0	365.8	303.8
42.5°	235.6	274.9	357.6	272.8	233.6
45°	181.9	208.8	248.0	206.7	181.9
47.5°	140.6	159.2	175.7	159.2	138.5
50°	101.3	119.9	126.1	119.9	99.2
52.5°	64.1	84.7	90.9	82.7	66.1
55°	37.2	51.7	64.1	51.7	37.2
57.5°	26.9	31.0	45.5	31.0	26.9
60°	20.7	22.7	28.9	22.7	20.7
62.5°	14.5	16.5	18.6	16.5	14.5
65°	10.3	12.4	14.5	12.4	10.3
67.5°	8.3	10.3	10.3	10.3	8.3
70°	6.2	6.2	8.3	6.2	6.2
72.5°	4.1	4.1	6.2	6.2	4.1
75°	4.1	4.1	4.1	4.1	2.1
77.5°	2.1	2.1	4.1	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)