

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: P241680

Luminaire Tested: **PRS420D010-S4M12-44SNDMW-3000K**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P241680
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-40)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: PRS420D010-S4M12-44SNDMW-3000K
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" NARROW DISTRIBUTION, SHALLOW TRIM MATTE WHITE
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1937.5 lumens
Efficiency: N/A
Efficacy: 96.9 lumens/watt
Spacing Criteria (0/90/45): 0.89 / 0.89 / 0.94
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')
CIE Type: Direct

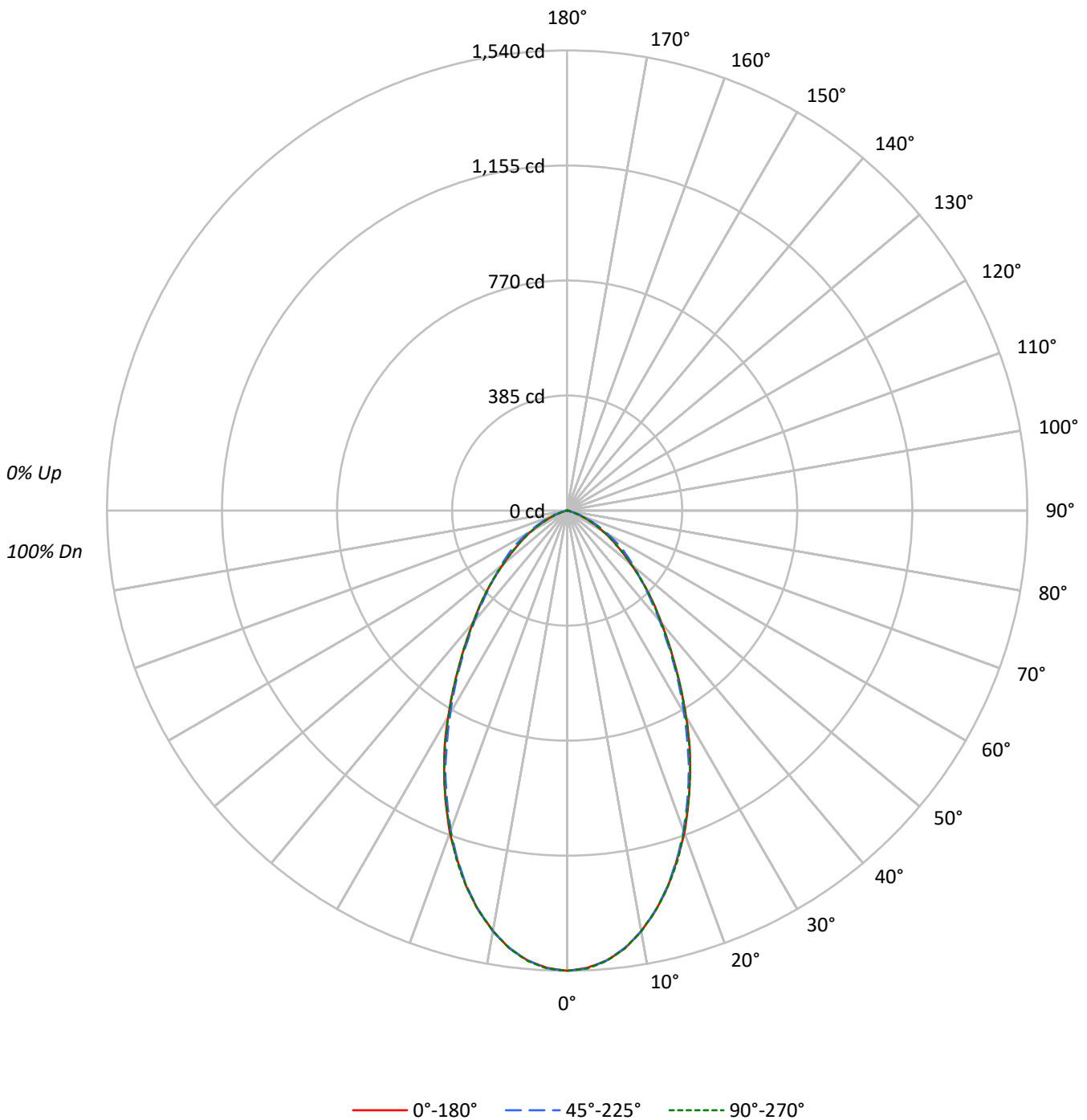
Input Watts (W): 20
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	103	109	106	104	101	102	100	98	98	97	95	95	93	92	90					90			
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	81					81			
3	98	89	83	78	95	88	82	78	85	80	76	83	78	75	80	77	74	72					72			
4	91	82	75	69	89	80	74	69	78	73	68	76	71	67	74	70	66	65					65			
5	85	75	68	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58					58			
6	80	69	62	56	78	68	61	56	66	60	56	65	59	55	63	59	55	53					53			
7	75	64	56	51	73	63	56	51	62	55	51	60	55	51	59	54	50	49					49			
8	71	59	52	47	69	59	52	47	57	51	47	56	51	47	55	50	46	45					45			
9	67	55	48	43	65	55	48	43	54	47	43	53	47	43	52	47	43	41					41			
10	63	52	45	40	62	51	45	40	50	44	40	49	44	40	49	43	40	38					38			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	117884	117884	117884
5°	116114	116114	116276
10°	111029	111192	111029
15°	103207	103040	103207
20°	93454	92786	93120
25°	82235	81365	82235
30°	70345	69064	70160
35°	58728	57953	58532
40°	48951	48132	48751
45°	40950	40279	41178
50°	33235	34712	33235
55°	26757	30066	27037
60°	21203	23728	21203
65°	15359	17967	15359
70°	9243	11570	9243
75°	3046	4880	3046
80°	2733	2733	2733
85°	1844	1844	1844



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.7	7.3
10°-20°	363.1	18.7
20°-30°	443.1	22.9
30°-40°	391.6	20.2
40°-50°	292.3	15.1
50°-60°	189.5	9.8
60°-70°	93.4	4.8
70°-80°	20.3	1.0
80°-90°	2.5	0.1
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°	947.9	48.9
0°-40°	1339.5	69.1
0°-60°	1821.3	94.0
0°-90°	1937.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1937.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1540	1540	1540	1540	1540	
5°	1511	1511	1511	1513	1513	142
15°	1302	1302	1300	1302	1302	363
25°	974	972	963	970	974	446
35°	628	624	620	624	626	395
45°	378	378	372	376	380	293
55°	200	207	225	209	203	182
65°	85	95	99	93	85	86
75°	10	12	16	12	10	18
85°	2	2	2	2	2	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1540.1	1540.1	1540.1	1540.1	1540.1
2.5°	1531.9	1531.9	1533.9	1533.9	1533.9
5°	1511.2	1511.2	1511.2	1513.3	1513.3
7.5°	1478.1	1476.0	1476.0	1478.1	1478.1
10°	1428.5	1428.5	1430.6	1426.4	1428.5
12.5°	1370.6	1370.6	1368.5	1370.6	1370.6
15°	1302.4	1302.4	1300.3	1302.4	1302.4
17.5°	1223.8	1223.8	1221.8	1225.9	1228.0
20°	1147.3	1145.3	1139.1	1143.2	1143.2
22.5°	1060.5	1058.5	1050.2	1056.4	1058.5
25°	973.7	971.6	963.4	969.6	973.7
27.5°	886.9	878.6	870.3	880.7	884.8
30°	795.9	789.7	781.4	789.7	793.8
32.5°	709.1	707.0	698.7	704.9	709.1
35°	628.5	624.3	620.2	624.3	626.4
37.5°	556.1	552.0	545.8	552.0	556.1
40°	489.9	485.8	481.7	483.7	487.9
42.5°	434.1	430.0	423.8	427.9	432.1
45°	378.3	378.3	372.1	376.2	380.4
47.5°	326.6	330.8	328.7	330.8	328.7
50°	279.1	287.4	291.5	287.4	279.1
52.5°	237.7	243.9	256.3	243.9	237.7
55°	200.5	206.7	225.3	208.8	202.6
57.5°	169.5	175.7	190.2	175.7	169.5
60°	138.5	146.8	155.0	146.8	138.5
62.5°	111.6	119.9	126.1	119.9	109.6
65°	84.8	95.1	99.2	93.0	84.8
67.5°	62.0	70.3	74.4	70.3	62.0
70°	41.3	49.6	51.7	49.6	41.3
72.5°	24.8	31.0	31.0	28.9	24.8
75°	10.3	12.4	16.5	12.4	10.3
77.5°	8.3	8.3	8.3	8.3	8.3
80°	6.2	6.2	6.2	6.2	6.2
82.5°	4.1	4.1	4.1	4.1	4.1
85°	2.1	2.1	2.1	2.1	2.1
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)