

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: P241735

Luminaire Tested: **PRS420D010-S4M12-44SNDH-4000K**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P241735
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-43)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: PRS420D010-S4M12-44SNDH-4000K
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" NARROW DISTRIBUTION, SHALLOW TRIM HAZE
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1935.8 lumens
Efficiency: N/A
Efficacy: 96.8 lumens/watt
Spacing Criteria (0/90/45): 0.88 / 0.88 / 0.92
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')
CIE Type: Direct

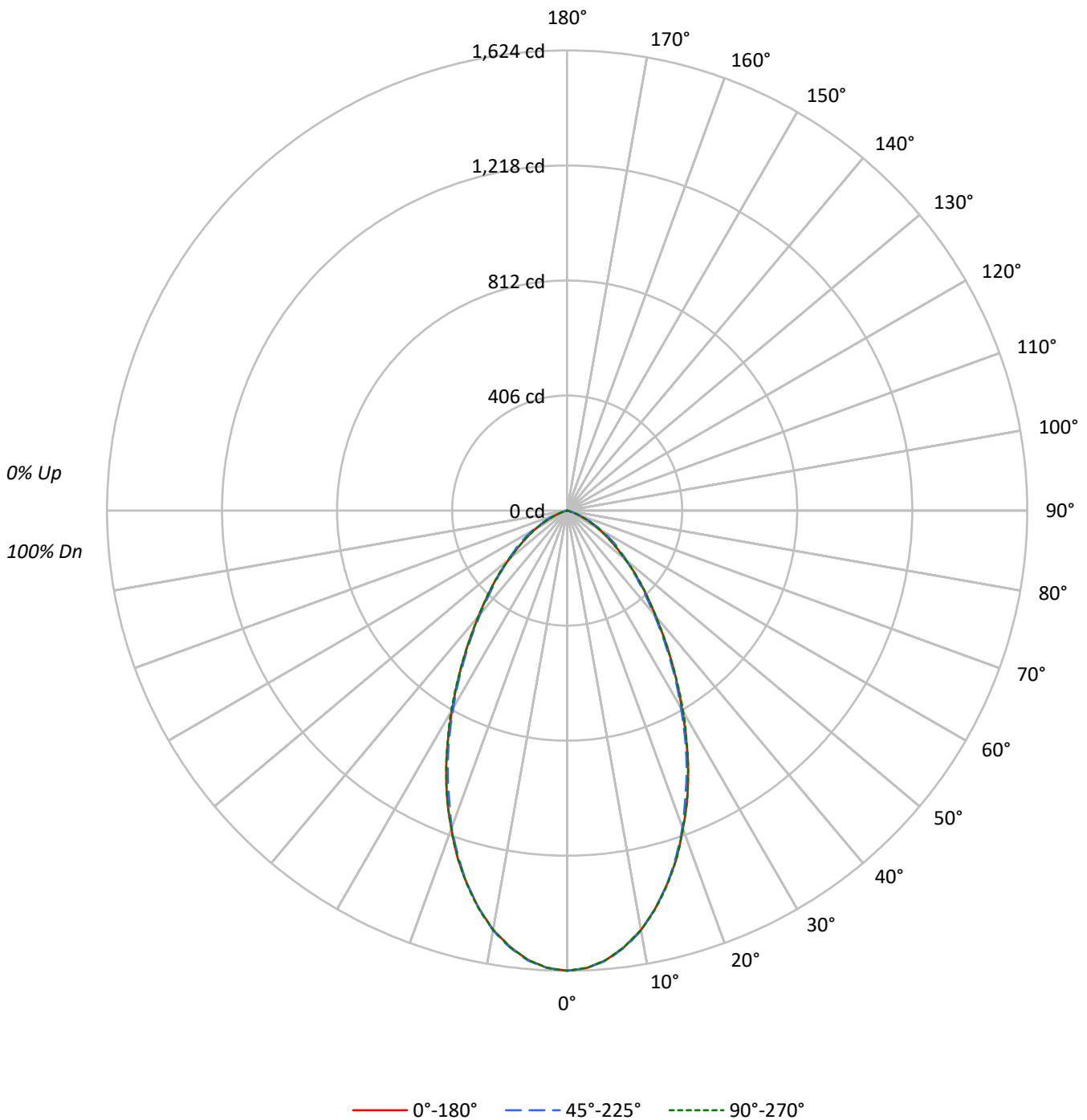
Input Watts (W): 20
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	106	103	110	107	104	102	103	100	98	99	97	95	95	94	93	91					91			
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	81					81			
3	98	90	84	79	96	89	83	79	86	81	77	84	80	76	81	78	75	73					73			
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66					66			
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60					60			
6	81	70	63	58	79	69	62	58	68	62	57	66	61	57	65	60	56	55					55			
7	76	65	58	53	74	64	57	53	63	57	52	62	56	52	60	55	52	50					50			
8	72	60	53	49	70	60	53	48	59	52	48	57	52	48	56	51	48	46					46			
9	68	56	49	45	66	56	49	45	55	49	45	54	48	44	53	48	44	43					43			
10	64	53	46	42	63	52	46	42	51	46	41	51	45	41	50	45	41	40					40			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	124299	124299	124299
5°	122276	122445	122276
10°	116781	116952	116781
15°	108064	108064	108239
20°	97307	96957	97307
25°	85326	84228	85326
30°	71671	70902	72431
35°	59560	58551	59560
40°	48531	47662	48741
45°	39900	38959	40128
50°	32009	32533	31759
55°	25169	27491	25169
60°	19258	21248	19258
65°	13348	15323	12950
70°	6803	8728	6803
75°	651	2573	651
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.1	7.7
10°-20°	380.5	19.7
20°-30°	458.9	23.7
30°-40°	396.6	20.5
40°-50°	283.9	14.7
50°-60°	175.6	9.1
60°-70°	80.0	4.1
70°-80°	11.2	0.6
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°	988.5	51.1
0°-40°	1385.1	71.6
0°-60°	1844.6	95.3
0°-90°	1935.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1935.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1624	1624	1624	1624	1624	
5°	1591	1591	1594	1591	1591	149
15°	1364	1364	1364	1366	1366	381
25°	1010	1004	997	1006	1010	461
35°	637	631	627	635	637	399
45°	369	364	360	366	371	286
55°	189	193	206	193	189	171
65°	74	80	85	80	72	74
75°	2	4	9	4	2	9
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°	1623.9	1623.9	1623.9	1623.9	1623.9
2.5°	1615.2	1615.2	1615.2	1615.2	1615.2
5°	1591.4	1591.4	1593.6	1591.4	1591.4
7.5°	1552.4	1554.5	1554.5	1554.5	1552.4
10°	1502.5	1502.5	1504.7	1502.5	1502.5
12.5°	1437.5	1437.5	1437.5	1439.6	1439.6
15°	1363.7	1363.7	1363.7	1365.9	1365.9
17.5°	1285.7	1283.5	1279.2	1281.4	1285.7
20°	1194.6	1192.5	1190.3	1192.5	1194.6
22.5°	1105.7	1097.1	1090.6	1101.4	1105.7
25°	1010.3	1003.8	997.3	1006.0	1010.3
27.5°	910.6	906.3	899.8	906.3	912.8
30°	810.9	810.9	802.2	810.9	819.5
32.5°	722.0	719.8	713.3	717.6	724.2
35°	637.4	630.9	626.6	635.3	637.4
37.5°	557.2	555.0	548.5	555.0	557.2
40°	485.7	481.3	477.0	483.5	487.8
42.5°	425.0	420.6	414.1	420.6	425.0
45°	368.6	364.2	359.9	366.4	370.7
47.5°	318.7	316.5	312.2	316.5	318.7
50°	268.8	273.2	273.2	271.0	266.7
52.5°	225.5	227.7	236.3	227.7	225.5
55°	188.6	193.0	206.0	193.0	188.6
57.5°	156.1	160.4	171.3	160.4	156.1
60°	125.8	132.3	138.8	132.3	125.8
62.5°	97.6	106.2	108.4	104.1	97.6
65°	73.7	80.2	84.6	80.2	71.5
67.5°	49.9	58.5	60.7	58.5	49.9
70°	30.4	39.0	39.0	39.0	30.4
72.5°	15.2	19.5	21.7	19.5	15.2
75°	2.2	4.3	8.7	4.3	2.2
77.5°	0.0	0.0	2.2	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)