

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: P252950

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

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P252950  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1805-776-2)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PRS420D010-S4M12-41SWDH  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" WIDE 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: 1778.3 lumens  
Efficiency: N/A  
Efficacy: 88.9 lumens/watt  
Spacing Criteria (0/90/45): 1.11 / 1.1 / 1.15  
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')  
CIE Type: Direct

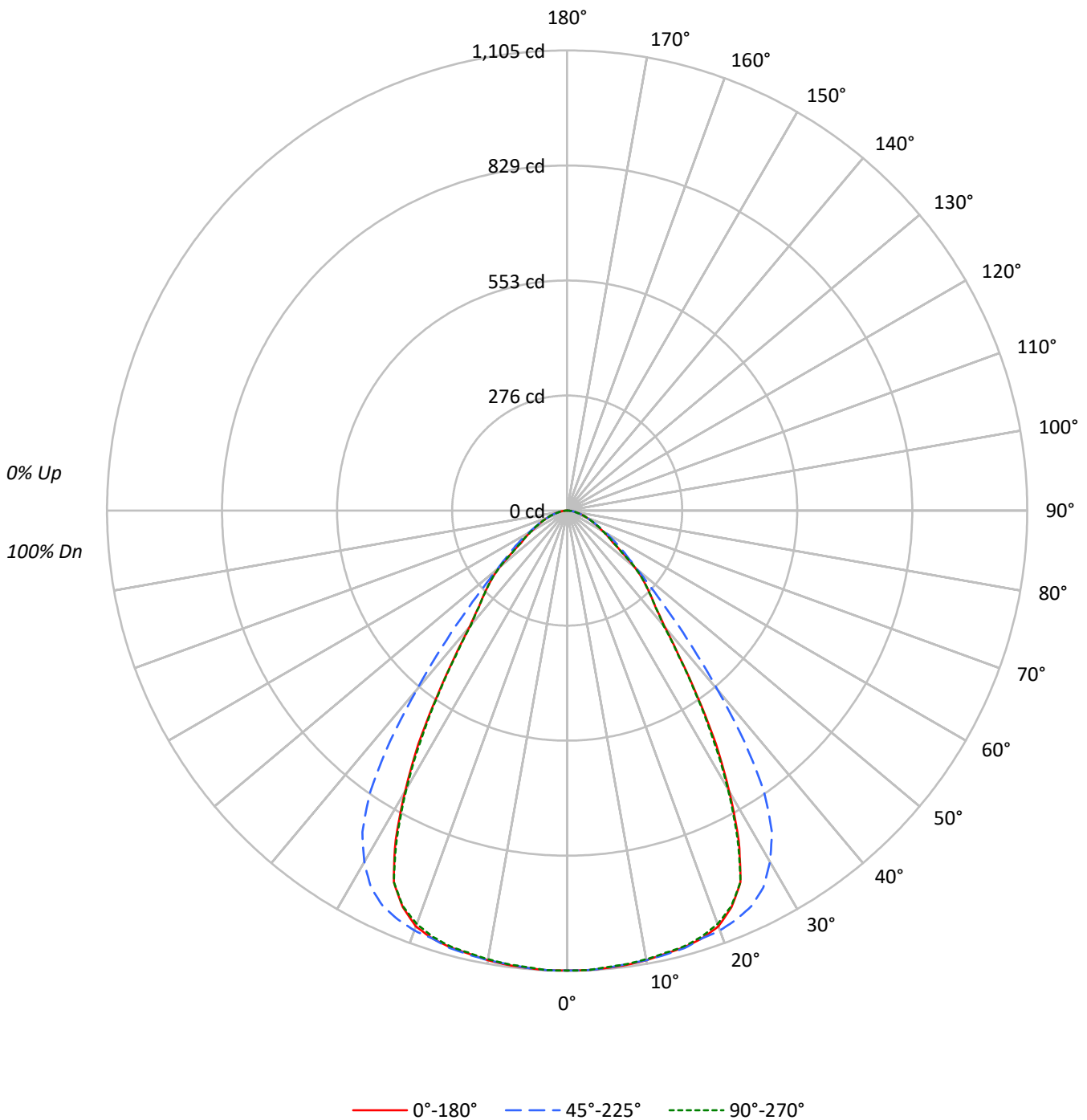
Input Watts (W): 20  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	102	109	106	103	100	102	99	97	98	96	94	95	93	92	90					90			
2	104	98	93	88	102	96	91	87	93	89	86	90	86	84	87	84	82	80					80			
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	76	73	72					72			
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64					64			
5	85	75	67	62	83	74	67	62	72	66	61	70	65	60	68	64	60	58					58			
6	80	69	61	56	78	68	61	56	66	60	55	65	59	55	63	58	55	53					53			
7	75	63	56	51	73	63	56	51	61	55	51	60	54	50	59	54	50	48					48			
8	70	59	52	47	69	58	51	47	57	51	46	56	50	46	55	50	46	44					44			
9	66	55	48	43	65	54	47	43	53	47	43	52	47	42	51	46	42	41					41			
10	63	51	44	40	61	51	44	40	50	44	39	49	43	39	48	43	39	38					38			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	84550	84550	84550
5°	84711	84711	84550
10°	85201	85201	85038
15°	86035	86201	85868
20°	86547	87402	86034
25°	83164	88493	83164
30°	68807	86096	68251
35°	50917	77071	50524
40°	36371	56135	35951
45°	30288	37357	30288
50°	25305	26055	25305
55°	17976	20778	18256
60°	15140	16426	15140
65°	12950	13330	12950
70°	11302	11302	11302
75°	9966	9966	9966
80°	8331	8331	8331
85°	7377	7377	7377



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	105.0	5.9
10°-20°	306.7	17.2
20°-30°	458.4	25.8
30°-40°	408.0	22.9
40°-50°	242.8	13.7
50°-60°	137.5	7.7
60°-70°	73.7	4.1
70°-80°	36.1	2.0
80°-90°	10.0	0.6
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°	870.1	48.9
0°-40°	1278.1	71.9
0°-60°	1658.4	93.3
0°-90°	1778.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1778.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1105	1105	1105	1105	1105	
5°	1102	1102	1102	1102	1100	105
15°	1086	1086	1088	1084	1084	307
25°	985	1012	1048	1010	985	439
35°	545	638	825	635	541	344
45°	280	301	345	299	280	217
55°	135	149	156	149	137	128
65°	72	74	74	74	72	72
75°	34	34	34	34	34	36
85°	8	8	8	8	8	10
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1104.6	1104.6	1104.6	1104.6	1104.6
2.5°	1104.6	1104.6	1104.6	1104.6	1104.6
5°	1102.5	1102.5	1102.5	1102.5	1100.4
7.5°	1100.4	1098.3	1098.3	1098.3	1098.3
10°	1096.2	1096.2	1096.2	1094.1	1094.1
12.5°	1089.9	1089.9	1092.0	1089.9	1087.8
15°	1085.7	1085.7	1087.8	1083.6	1083.6
17.5°	1077.2	1079.3	1077.2	1077.2	1073.0
20°	1062.5	1068.8	1073.0	1066.7	1056.2
22.5°	1031.0	1047.8	1062.5	1045.7	1028.8
25°	984.7	1012.0	1047.8	1009.9	984.7
27.5°	892.1	961.5	1020.4	955.2	885.8
30°	778.5	862.6	974.1	856.3	772.2
32.5°	664.9	749.0	915.2	744.8	654.3
35°	544.9	637.5	824.8	635.4	540.7
37.5°	443.9	528.1	698.5	523.9	439.7
40°	364.0	429.2	561.8	427.1	359.8
42.5°	313.5	349.3	443.9	347.2	313.5
45°	279.8	300.9	345.1	298.8	279.8
47.5°	248.3	265.1	271.4	263.0	248.3
50°	212.5	231.4	218.8	231.4	212.5
52.5°	168.3	191.5	183.0	193.6	166.2
55°	134.7	149.4	155.7	149.4	136.8
57.5°	117.8	122.0	130.4	122.0	117.8
60°	98.9	103.1	107.3	103.1	98.9
62.5°	84.2	88.4	88.4	88.4	86.3
65°	71.5	73.6	73.6	73.6	71.5
67.5°	61.0	61.0	61.0	61.0	61.0
70°	50.5	50.5	50.5	50.5	50.5
72.5°	42.1	42.1	42.1	42.1	42.1
75°	33.7	33.7	33.7	33.7	33.7
77.5°	27.4	27.4	25.2	27.4	25.2
80°	18.9	18.9	18.9	18.9	18.9
82.5°	14.7	14.7	14.7	14.7	14.7
85°	8.4	8.4	8.4	8.4	8.4
87.5°	4.2	4.2	4.2	4.2	4.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)