

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: P241645

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

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P241645  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-37)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PRS420D010-S4M12-44SNDMB-4000K  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" NARROW DISTRIBUTION, SHALLOW TRIM MATTE BLACK  
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1745.1 lumens  
Efficiency: N/A  
Efficacy: 87.3 lumens/watt  
Spacing Criteria (0/90/45): 0.87 / 0.87 / 0.91  
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')  
CIE Type: Direct

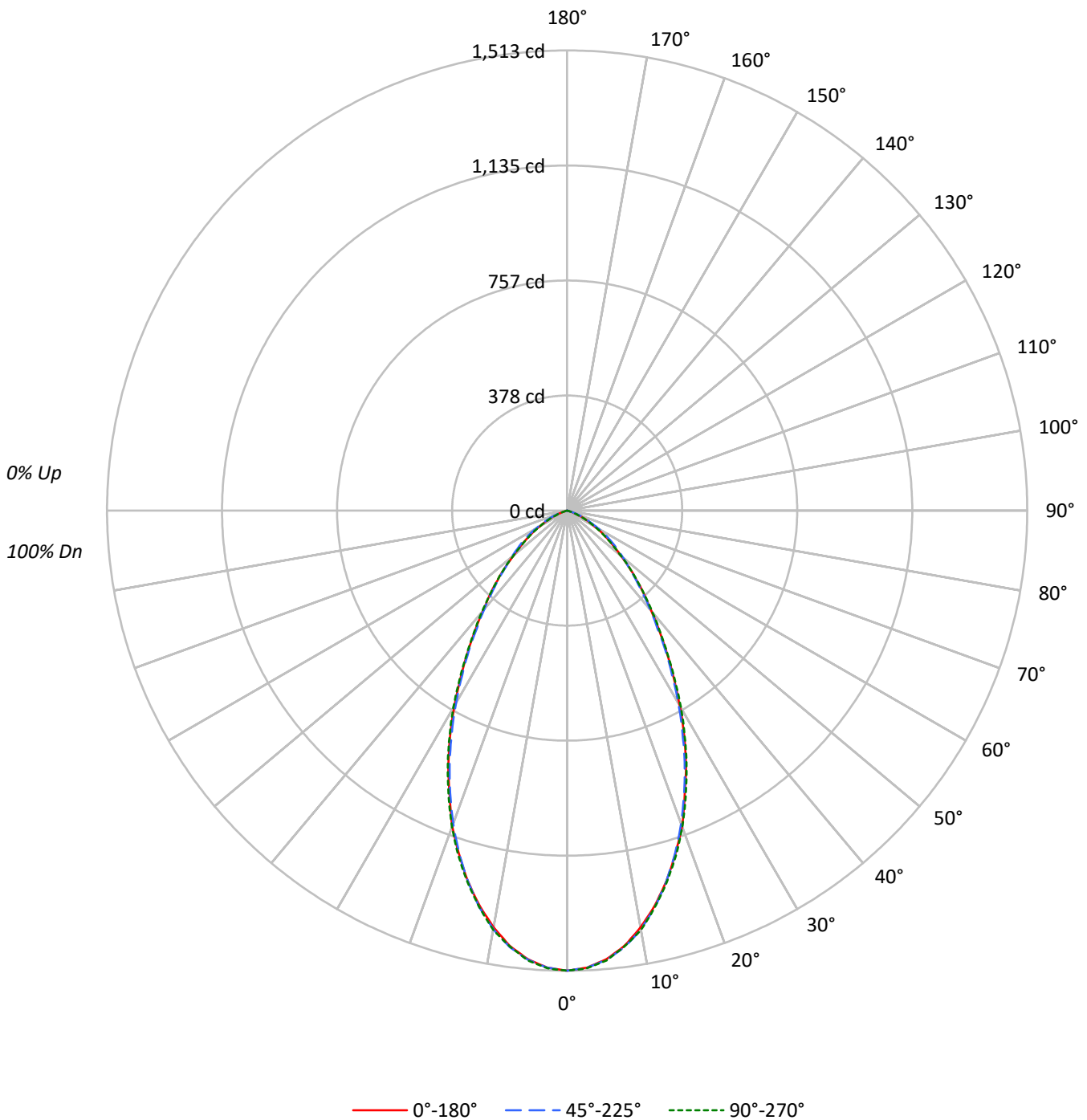
Input Watts (W): 20  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	101	99	99	97	96	95	94	93	91					91			
2	105	99	95	90	103	98	93	89	94	91	87	91	88	85	88	86	84	82					82			
3	98	91	85	80	96	89	84	79	87	82	78	84	80	77	82	78	75	74					74			
4	92	83	76	71	90	82	76	71	80	74	70	78	73	69	76	72	68	67					67			
5	86	76	70	64	85	75	69	64	74	68	63	72	67	63	70	66	62	61					61			
6	81	71	64	58	80	70	63	58	68	62	58	67	61	57	65	61	57	55					55			
7	76	66	58	53	75	65	58	53	63	57	53	62	57	53	61	56	52	51					51			
8	72	61	54	49	71	60	54	49	59	53	49	58	53	49	57	52	48	47					47			
9	68	57	50	46	67	56	50	45	55	49	45	54	49	45	54	49	45	43					43			
10	64	53	47	42	63	53	47	42	52	46	42	51	46	42	50	45	42	40					40			

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

	0°	45°	90°
0°	115795	115795	115795
5°	113740	113901	114070
10°	108138	108643	108806
15°	99926	99926	100275
20°	89992	89284	90163
25°	78088	77176	78460
30°	65414	64645	66182
35°	53337	52729	53748
40°	42946	42506	43595
45°	35008	34304	35246
50°	27400	28436	27400
55°	21726	23754	21432
60°	15952	18279	15952
65°	11012	12968	10613
70°	5349	7296	5349
75°	0	1922	0
80°	0	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	138.8	8.0
10°-20°	352.1	20.2
20°-30°	420.7	24.1
30°-40°	357.0	20.5
40°-50°	250.2	14.3
50°-60°	150.9	8.6
60°-70°	67.0	3.8
70°-80°	8.4	0.5
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°	911.6	52.2
0°-40°	1268.6	72.7
0°-60°	1669.7	95.7
0°-90°	1745.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1745.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1513	1513	1513	1513	1513	
5°	1480	1482	1482	1482	1485	139
15°	1261	1261	1261	1268	1265	352
25°	925	920	914	922	929	422
35°	571	569	564	573	575	358
45°	323	321	317	323	326	250
55°	163	165	178	165	161	146
65°	61	67	72	67	59	61
75°	0	2	6	2	0	6
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°	1512.8	1512.8	1512.8	1512.8	1512.8
2.5°	1504.1	1504.1	1504.1	1504.1	1506.3
5°	1480.3	1482.4	1482.4	1482.4	1484.6
7.5°	1443.4	1443.4	1447.7	1447.7	1445.5
10°	1391.3	1391.3	1397.8	1399.9	1399.9
12.5°	1330.5	1330.5	1334.8	1337.0	1334.8
15°	1261.0	1261.0	1261.0	1267.5	1265.4
17.5°	1182.9	1182.9	1180.7	1187.2	1189.4
20°	1104.8	1100.4	1096.1	1100.4	1106.9
22.5°	1009.3	1009.3	1004.9	1013.6	1017.9
25°	924.6	920.3	913.8	922.4	929.0
27.5°	833.5	829.1	820.4	826.9	837.8
30°	740.1	738.0	731.4	738.0	748.8
32.5°	651.1	649.0	642.5	651.1	657.6
35°	570.8	568.7	564.3	573.0	575.2
37.5°	497.0	492.7	488.4	497.0	501.4
40°	429.8	429.8	425.4	429.8	436.3
42.5°	375.5	373.3	366.8	373.3	377.7
45°	323.4	321.2	316.9	323.4	325.6
47.5°	275.6	277.8	273.5	277.8	277.8
50°	230.1	236.6	238.8	236.6	230.1
52.5°	193.2	197.5	206.2	197.5	191.0
55°	162.8	165.0	178.0	165.0	160.6
57.5°	132.4	136.7	147.6	136.7	130.2
60°	104.2	112.9	119.4	110.7	104.2
62.5°	82.5	89.0	93.3	86.8	80.3
65°	60.8	67.3	71.6	67.3	58.6
67.5°	41.2	49.9	52.1	47.8	39.1
70°	23.9	30.4	32.6	30.4	23.9
72.5°	10.9	15.2	17.4	15.2	10.9
75°	0.0	2.2	6.5	2.2	0.0
77.5°	0.0	0.0	0.0	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)