

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: P241790

Luminaire Tested: **PRS420D010-S4M12-44SMDC**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P241790
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-47)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: PRS420D010-S4M12-44SMDC
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM DISTRIBUTION, SHALLOW TRIM SPECULAR
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2169.7 lumens
Efficiency: N/A
Efficacy: 108.5 lumens/watt
Spacing Criteria (0/90/45): 1.03 / 1.03 / 1.1
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')
CIE Type: Direct

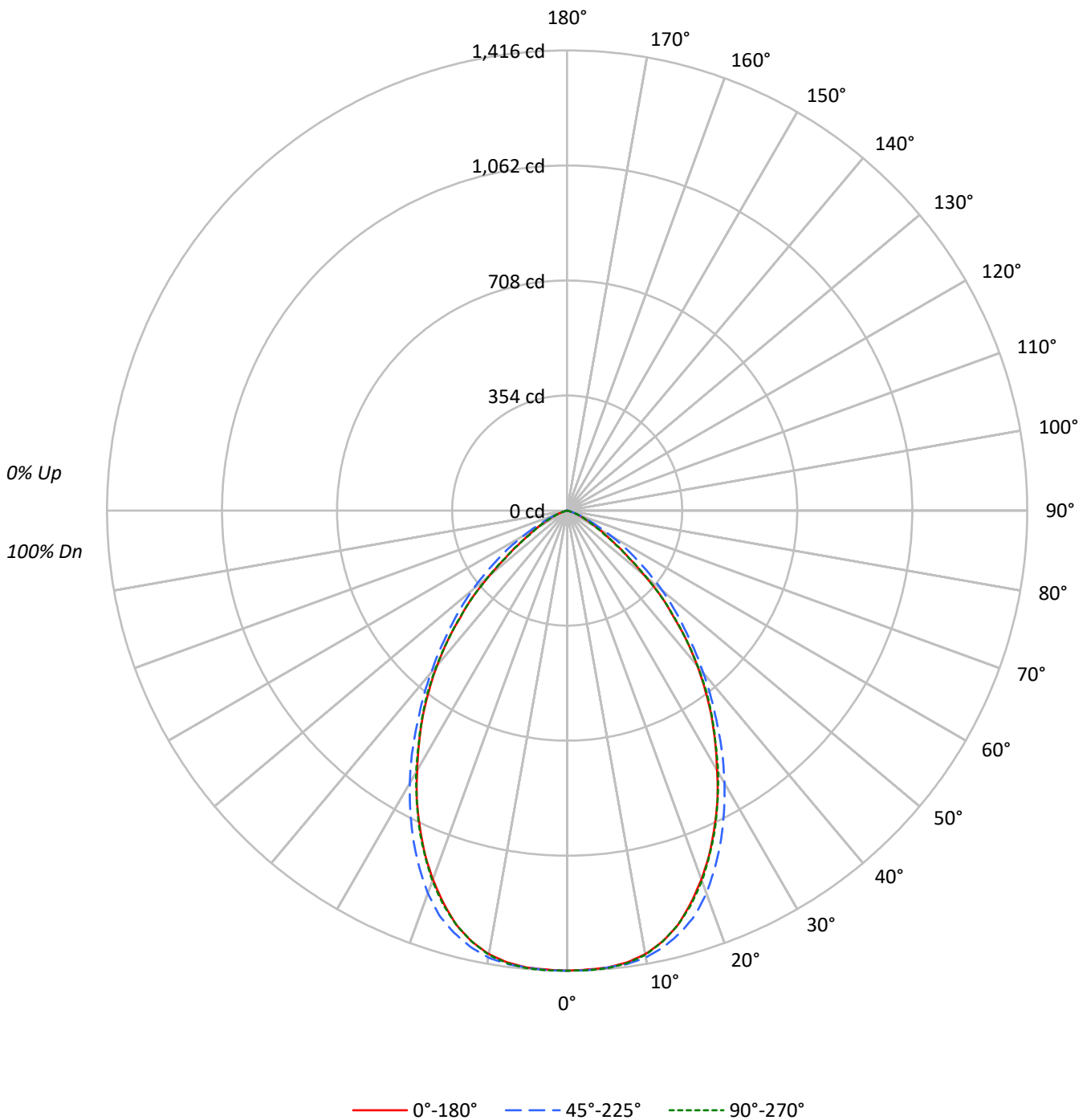
Input Watts (W): 20
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	101	102	100	98	99	97	95	95	94	93	91					91			
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81					81			
3	98	90	84	79	96	88	83	78	86	81	77	83	79	75	81	77	74	72					72			
4	91	82	75	70	89	81	74	69	78	73	68	76	71	68	74	70	67	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	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	50	60	54	50	59	54	50	48					48			
8	70	59	51	46	69	58	51	46	57	51	46	56	50	46	55	49	46	44					44			
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40					40			
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	37					37			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	108370	108370	108370
5°	108454	108454	108623
10°	107710	108542	107881
15°	104554	106591	104554
20°	98399	102064	98749
25°	90630	94608	90993
30°	81597	85565	82162
35°	72455	75258	72651
40°	62280	65058	62490
45°	50314	54947	50779
50°	37236	45405	37498
55°	24581	34590	24581
60°	16396	23943	15737
65°	10867	13964	10867
70°	6222	7184	6222
75°	0	2543	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	134.1	6.2
10°-20°	373.1	17.2
20°-30°	504.0	23.2
30°-40°	496.6	22.9
40°-50°	379.3	17.5
50°-60°	201.3	9.3
60°-70°	72.2	3.3
70°-80°	9.1	0.4
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°	1011.3	46.6
0°-40°	1507.9	69.5
0°-60°	2088.5	96.3
0°-90°	2169.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2169.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1416	1416	1416	1416	1416	
5°	1412	1412	1412	1414	1414	134
15°	1319	1334	1345	1332	1319	369
25°	1073	1101	1120	1105	1077	492
35°	775	799	805	801	778	482
45°	465	495	508	497	469	360
55°	184	216	259	216	184	172
65°	60	71	77	71	60	62
75°	0	2	9	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°	1415.8	1415.8	1415.8	1415.8	1415.8
2.5°	1413.7	1413.7	1415.8	1415.8	1415.8
5°	1411.5	1411.5	1411.5	1413.7	1413.7
7.5°	1403.0	1403.0	1407.2	1405.1	1405.1
10°	1385.8	1390.1	1396.5	1390.1	1388.0
12.5°	1358.0	1368.7	1375.1	1368.7	1358.0
15°	1319.4	1334.4	1345.1	1332.3	1319.4
17.5°	1265.9	1285.1	1306.6	1285.1	1270.2
20°	1208.0	1231.6	1253.0	1233.7	1212.3
22.5°	1143.8	1169.5	1188.8	1171.6	1145.9
25°	1073.1	1100.9	1120.2	1105.2	1077.4
27.5°	1002.4	1030.3	1045.3	1032.4	1002.4
30°	923.2	953.2	968.1	957.4	929.6
32.5°	848.2	876.0	888.9	878.2	850.3
35°	775.4	798.9	805.4	801.1	777.5
37.5°	698.3	724.0	728.2	728.2	704.7
40°	623.3	646.9	651.1	649.0	625.4
42.5°	546.2	571.9	578.3	571.9	546.2
45°	464.8	494.8	507.6	496.9	469.1
47.5°	396.3	419.8	443.4	422.0	394.1
50°	312.7	353.4	381.3	351.3	314.9
52.5°	239.9	282.7	317.0	280.6	239.9
55°	184.2	216.3	259.2	216.3	184.2
57.5°	139.2	164.9	207.8	162.8	134.9
60°	107.1	126.4	156.4	122.1	102.8
62.5°	81.4	94.2	111.4	92.1	79.3
65°	60.0	70.7	77.1	70.7	60.0
67.5°	42.8	51.4	51.4	51.4	42.8
70°	27.8	34.3	32.1	34.3	27.8
72.5°	10.7	17.1	17.1	17.1	10.7
75°	0.0	2.1	8.6	2.1	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)