

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: P241697

Luminaire Tested: **PRS440D010-S4M24-44SMDMW-3000K**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P241697
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-41)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: PRS440D010-S4M24-44SMDMW-3000K
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM 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: 3704.3 lumens
Efficiency: N/A
Efficacy: 97.5 lumens/watt
Spacing Criteria (0/90/45): 1.01 / 1.01 / 1.08
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')
CIE Type: Direct

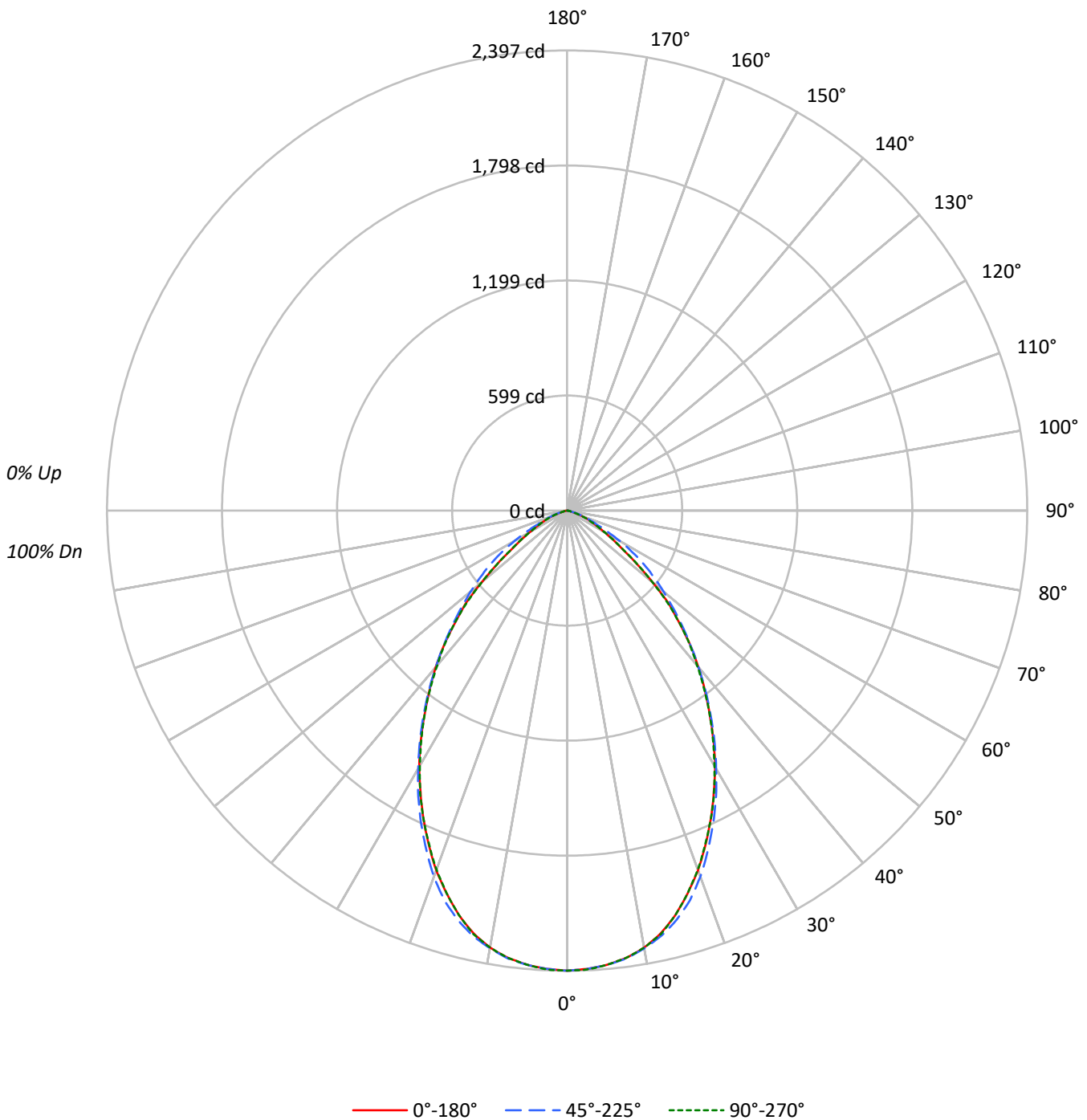
Input Watts (W): 38
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	101	102	100	98	98	96	95	95	93	92	90					90			
2	104	98	93	88	102	96	91	87	93	89	85	90	86	84	87	84	82	80					80			
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71					71			
4	90	81	74	68	88	79	73	68	77	71	67	75	70	66	73	69	65	63					63			
5	84	74	66	61	82	73	66	60	71	65	60	69	64	59	67	62	59	57					57			
6	79	68	60	55	77	67	60	54	65	59	54	63	58	54	62	57	53	51					51			
7	74	62	55	49	72	61	54	49	60	54	49	59	53	49	57	52	48	47					47			
8	69	57	50	45	68	57	50	45	56	49	45	54	49	45	53	48	44	43					43			
9	65	53	46	41	64	53	46	41	52	45	41	51	45	41	50	45	41	39					39			
10	61	50	43	38	60	49	43	38	48	42	38	47	42	38	47	41	38	36					36			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	183452	183452	183452
5°	182523	182523	182523
10°	179683	179963	179683
15°	172838	174795	172838
20°	162398	165282	162113
25°	149572	151962	149572
30°	136219	137155	135600
35°	120896	121886	120896
40°	106315	106315	105256
45°	89154	91449	89543
50°	69031	77879	69031
55°	47641	65097	48122
60°	34092	48161	34092
65°	25610	30736	24976
70°	16606	19784	17411
75°	6270	10440	6270
80°	4672	6215	4672
85°	3074	3074	3074



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	224.9	6.1
10°-20°	614.0	16.6
20°-30°	820.2	22.1
30°-40°	814.5	22.0
40°-50°	647.9	17.5
50°-60°	378.4	10.2
60°-70°	159.5	4.3
70°-80°	39.2	1.1
80°-90°	5.6	0.2
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°	1659.1	44.8
0°-40°	2473.7	66.8
0°-60°	3500.0	94.5
0°-90°	3704.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3704.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2397	2397	2397	2397	2397	
5°	2376	2376	2376	2376	2376	225
15°	2181	2195	2206	2195	2181	610
25°	1771	1796	1799	1792	1771	813
35°	1294	1315	1304	1308	1294	809
45°	824	845	845	845	827	636
55°	357	406	488	406	361	333
65°	141	156	170	156	138	142
75°	21	25	35	28	21	33
85°	4	4	4	4	4	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2396.7	2396.7	2396.7	2396.7	2396.7
2.5°	2389.6	2389.6	2389.6	2389.6	2393.2
5°	2375.5	2375.5	2375.5	2375.5	2375.5
7.5°	2350.7	2350.7	2354.3	2354.3	2350.7
10°	2311.8	2311.8	2315.4	2315.4	2311.8
12.5°	2255.3	2262.4	2269.4	2262.4	2258.8
15°	2181.1	2195.2	2205.8	2195.2	2181.1
17.5°	2089.1	2106.8	2128.0	2106.8	2089.1
20°	1993.7	2011.4	2029.1	2007.8	1990.2
22.5°	1884.1	1905.3	1915.9	1901.8	1880.6
25°	1771.0	1795.7	1799.3	1792.2	1771.0
27.5°	1654.3	1672.0	1679.1	1675.6	1657.9
30°	1541.2	1558.9	1551.8	1555.4	1534.2
32.5°	1417.5	1435.2	1428.1	1428.1	1414.0
35°	1293.8	1315.0	1304.4	1307.9	1293.8
37.5°	1177.1	1187.7	1184.2	1187.7	1173.6
40°	1064.0	1071.1	1064.0	1071.1	1053.4
42.5°	947.4	958.0	950.9	958.0	943.8
45°	823.6	844.8	844.8	844.8	827.2
47.5°	717.6	735.3	745.9	735.3	707.0
50°	579.7	632.8	654.0	629.2	579.7
52.5°	459.5	512.6	569.1	512.6	463.1
55°	357.0	406.5	487.8	406.5	360.6
57.5°	282.8	318.1	403.0	318.1	282.8
60°	222.7	251.0	314.6	251.0	222.7
62.5°	176.7	198.0	233.3	198.0	176.7
65°	141.4	155.5	169.7	155.5	137.9
67.5°	109.6	120.2	123.7	120.2	106.0
70°	74.2	88.4	88.4	88.4	77.8
72.5°	46.0	56.6	60.1	56.6	46.0
75°	21.2	24.7	35.3	28.3	21.2
77.5°	17.7	17.7	17.7	17.7	17.7
80°	10.6	14.1	14.1	14.1	10.6
82.5°	7.1	7.1	7.1	7.1	7.1
85°	3.5	3.5	3.5	3.5	3.5
87.5°	3.5	3.5	3.5	3.5	3.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)