

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: P241652

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

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P241652
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-38)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: PRS440D010-S4M24-44SMDMB-3000K
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM DISTRIBUTION, SHALLOW TRIM MATTE BLACK
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3273.0 lumens
Efficiency: N/A
Efficacy: 86.1 lumens/watt
Spacing Criteria (0/90/45): 1 / 1 / 1.06
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')
CIE Type: Direct

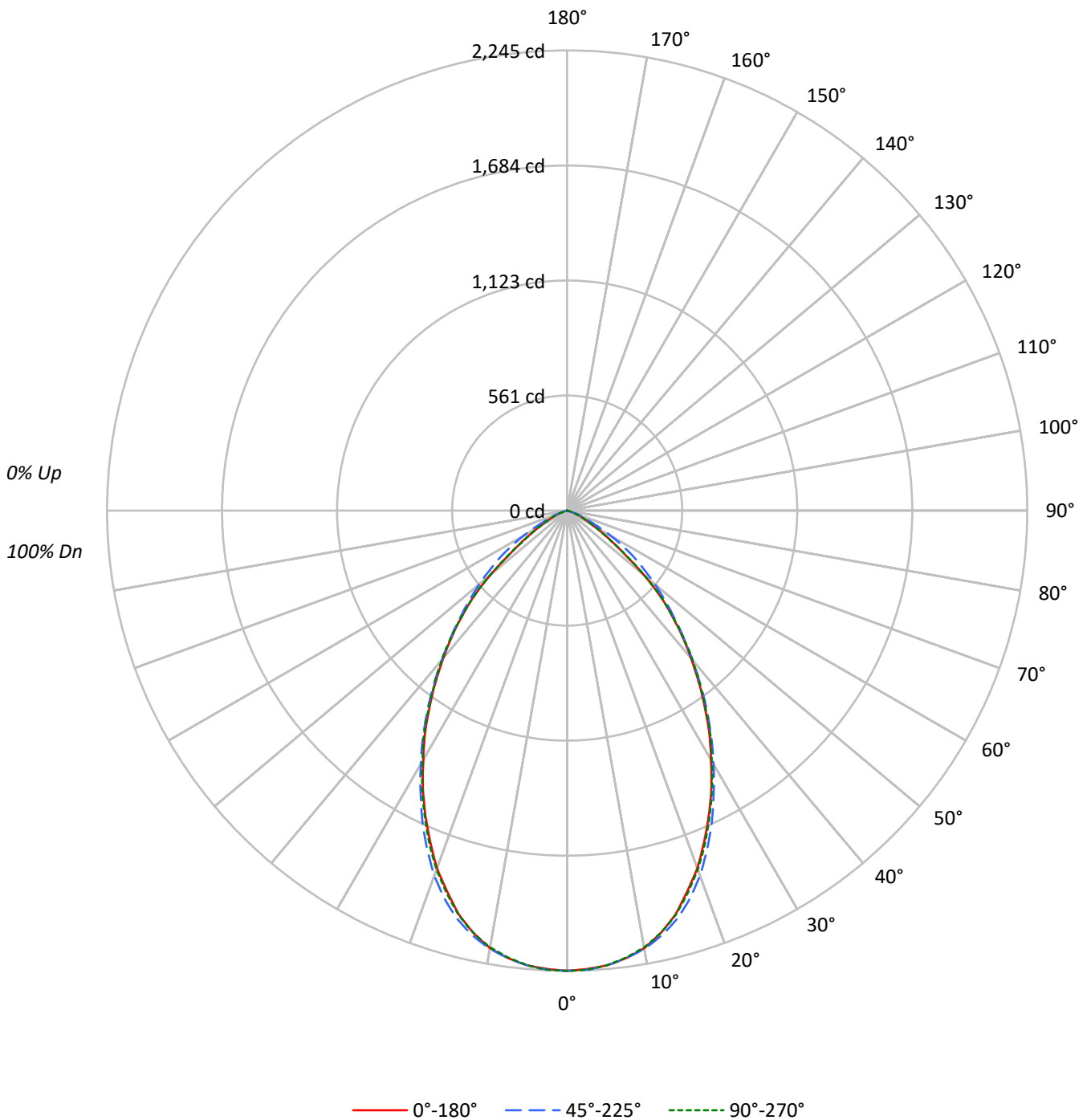
Input Watts (W): 38
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	85	83	81					81			
3	98	90	84	79	96	88	83	78	86	81	77	83	79	76	81	77	74	73					73			
4	91	82	75	70	89	81	74	70	78	73	69	76	72	68	74	70	67	65					65			
5	85	75	68	63	84	74	67	62	72	66	62	70	65	61	69	64	61	59					59			
6	80	69	62	56	78	68	61	56	66	60	56	65	60	55	64	59	55	53					53			
7	75	64	56	51	73	63	56	51	62	55	51	60	55	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	48	43	53	47	43	52	47	43	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°	171855	171855	171855
5°	171159	171159	171159
10°	168459	168739	168187
15°	161673	163630	161950
20°	151206	154375	151785
25°	138263	141245	138863
30°	124066	126258	124693
35°	109365	111009	110019
40°	93975	95034	95034
45°	78080	79996	78459
50°	58099	66530	58528
55°	36805	53313	36338
60°	23269	37353	22733
65°	15377	21136	15377
70°	8706	11078	8706
75°	0	3135	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	210.7	6.4
10°-20°	574.2	17.5
20°-30°	760.0	23.2
30°-40°	740.3	22.6
40°-50°	566.9	17.3
50°-60°	302.3	9.2
60°-70°	105.1	3.2
70°-80°	13.5	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°	1544.9	47.2
0°-40°	2285.2	69.8
0°-60°	3154.4	96.4
0°-90°	3273.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3273.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2245	2245	2245	2245	2245	
5°	2228	2228	2228	2228	2228	211
15°	2040	2054	2065	2054	2044	570
25°	1637	1662	1672	1662	1644	750
35°	1170	1188	1188	1195	1177	730
45°	721	735	739	742	725	553
55°	276	318	400	322	272	258
65°	85	102	117	99	85	88
75°	0	4	11	4	0	10
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°	2245.2	2245.2	2245.2	2245.2	2245.2
2.5°	2238.2	2238.2	2241.7	2238.2	2241.7
5°	2227.6	2227.6	2227.6	2227.6	2227.6
7.5°	2202.8	2202.8	2202.8	2202.8	2199.3
10°	2167.4	2167.4	2171.0	2167.4	2163.9
12.5°	2110.9	2117.9	2125.0	2121.5	2110.9
15°	2040.2	2054.3	2064.9	2054.3	2043.7
17.5°	1948.2	1965.9	1987.1	1969.4	1955.3
20°	1856.3	1870.4	1895.2	1877.5	1863.4
22.5°	1746.7	1767.9	1785.6	1775.0	1757.3
25°	1637.1	1661.8	1672.4	1661.8	1644.2
27.5°	1523.9	1541.6	1548.7	1552.2	1531.0
30°	1403.7	1424.9	1428.5	1432.0	1410.8
32.5°	1290.6	1308.2	1308.2	1318.9	1301.2
35°	1170.4	1188.0	1188.0	1195.1	1177.4
37.5°	1053.7	1071.3	1067.8	1078.4	1060.7
40°	940.5	954.7	951.1	958.2	951.1
42.5°	830.9	845.1	841.5	848.6	838.0
45°	721.3	735.4	739.0	742.5	724.8
47.5°	615.2	632.9	643.5	640.0	615.2
50°	487.9	530.4	558.7	537.4	491.5
52.5°	364.2	424.3	473.8	427.8	371.3
55°	275.8	318.2	399.5	321.8	272.3
57.5°	205.1	240.4	321.8	236.9	201.5
60°	152.0	180.3	244.0	176.8	148.5
62.5°	113.1	134.4	169.7	130.8	113.1
65°	84.9	102.5	116.7	99.0	84.9
67.5°	63.6	74.3	77.8	74.3	60.1
70°	38.9	49.5	49.5	49.5	38.9
72.5°	17.7	24.8	28.3	24.8	17.7
75°	0.0	3.5	10.6	3.5	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)