

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: P252987

Luminaire Tested: **PRS440D010-S4M24-41SWDMB-4000K**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P252987
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: PRS440D010-S4M24-41SWDMB-4000K
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, DEEP 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: 2095.6 lumens
Efficiency: N/A
Efficacy: 55.1 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

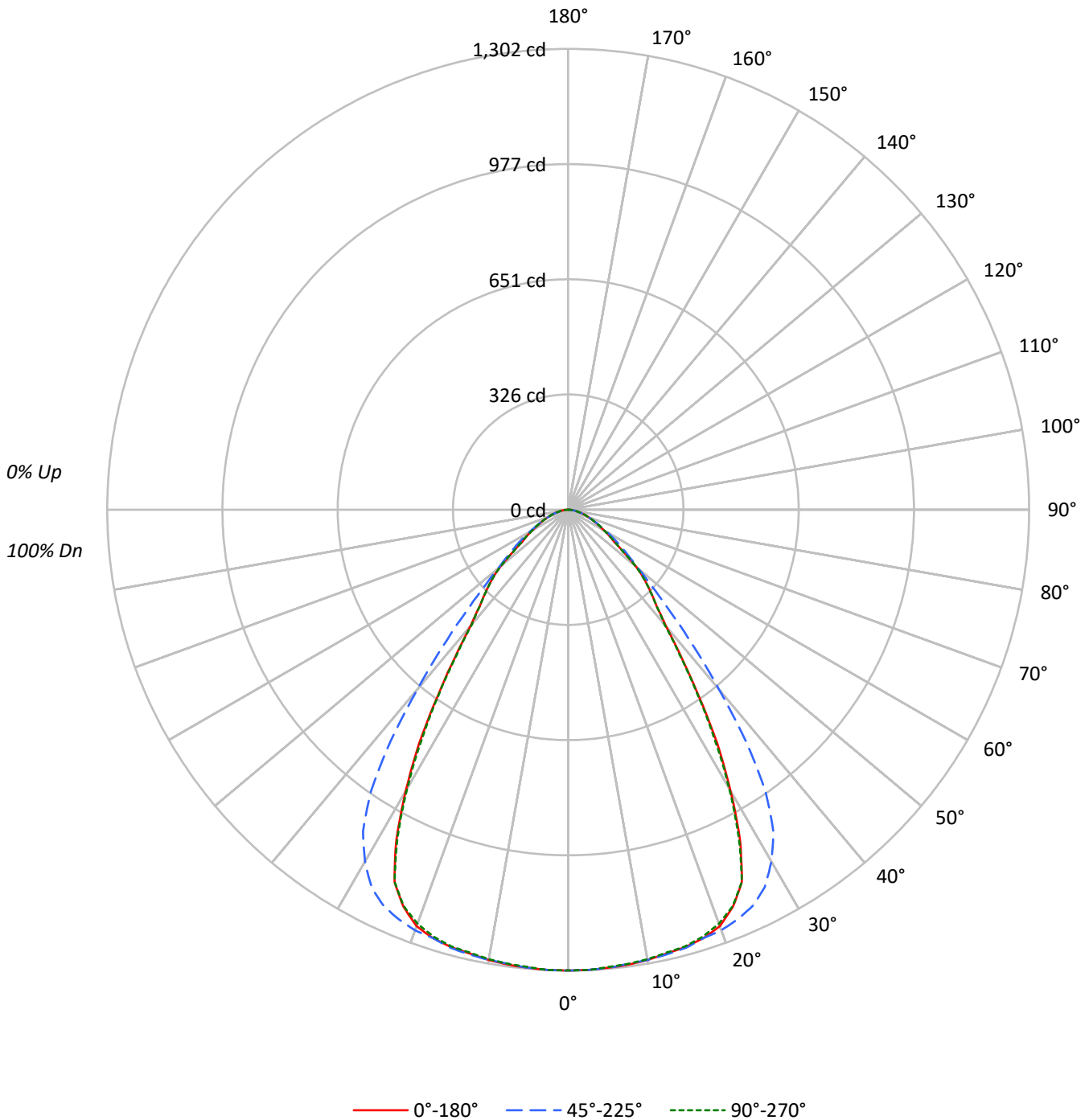
Input Watts (W): 38
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	99637	99637	99637
5°	99825	99825	99633
10°	100396	100396	100210
15°	101376	101574	101186
20°	101991	103001	101380
25°	97995	104278	97995
30°	81084	101457	80421
35°	59999	90817	59541
40°	42856	66147	42366
45°	35700	44014	35700
50°	29818	30711	29818
55°	21178	24488	21512
60°	17835	19350	17835
65°	15268	15721	15268
70°	13316	13316	13316
75°	11741	11741	11741
80°	9830	9830	9830
85°	8695	8695	8695



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.7	5.9
10°-20°	361.5	17.2
20°-30°	540.2	25.8
30°-40°	480.8	22.9
40°-50°	286.1	13.7
50°-60°	162.1	7.7
60°-70°	86.9	4.1
70°-80°	42.6	2.0
80°-90°	11.8	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°	1025.3	48.9
0°-40°	1506.1	71.9
0°-60°	1954.3	93.3
0°-90°	2095.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2095.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1302	1302	1302	1302	1302	
5°	1299	1299	1299	1299	1297	124
15°	1279	1279	1282	1277	1277	361
25°	1160	1193	1235	1190	1160	518
35°	642	751	972	749	637	406
45°	330	354	407	352	330	256
55°	159	176	184	176	161	151
65°	84	87	87	87	84	85
75°	40	40	40	40	40	43
85°	10	10	10	10	10	12
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1301.7	1301.7	1301.7	1301.7	1301.7
2.5°	1301.7	1301.7	1301.7	1301.7	1301.7
5°	1299.2	1299.2	1299.2	1299.2	1296.7
7.5°	1296.7	1294.2	1294.2	1294.2	1294.2
10°	1291.7	1291.7	1291.7	1289.3	1289.3
12.5°	1284.3	1284.3	1286.8	1284.3	1281.8
15°	1279.3	1279.3	1281.8	1276.9	1276.9
17.5°	1269.4	1271.9	1269.4	1269.4	1264.5
20°	1252.1	1259.5	1264.5	1257.0	1244.6
22.5°	1214.9	1234.7	1252.1	1232.2	1212.4
25°	1160.3	1192.6	1234.7	1190.1	1160.3
27.5°	1051.2	1133.1	1202.5	1125.6	1043.8
30°	917.4	1016.5	1147.9	1009.1	909.9
32.5°	783.5	882.6	1078.5	877.7	771.1
35°	642.1	751.2	971.9	748.8	637.2
37.5°	523.1	622.3	823.1	617.4	518.2
40°	428.9	505.8	662.0	503.3	424.0
42.5°	369.4	411.6	523.1	409.1	369.4
45°	329.8	354.5	406.6	352.1	329.8
47.5°	292.6	312.4	319.8	309.9	292.6
50°	250.4	272.7	257.9	272.7	250.4
52.5°	198.3	225.6	215.7	228.1	195.9
55°	158.7	176.0	183.5	176.0	161.2
57.5°	138.8	143.8	153.7	143.8	138.8
60°	116.5	121.5	126.4	121.5	116.5
62.5°	99.2	104.1	104.1	104.1	101.7
65°	84.3	86.8	86.8	86.8	84.3
67.5°	71.9	71.9	71.9	71.9	71.9
70°	59.5	59.5	59.5	59.5	59.5
72.5°	49.6	49.6	49.6	49.6	49.6
75°	39.7	39.7	39.7	39.7	39.7
77.5°	32.2	32.2	29.8	32.2	29.8
80°	22.3	22.3	22.3	22.3	22.3
82.5°	17.4	17.4	17.4	17.4	17.4
85°	9.9	9.9	9.9	9.9	9.9
87.5°	5.0	5.0	5.0	5.0	5.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)