

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: METALUX

Report Number: P271957

Luminaire Tested: **14CZ2-48HE-S-UNV-L930-CD1-U**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Test Information

Test Method: LM-79-08
Report Number: P271957
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-40)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ2-48HE-S-UNV-L930-CD1-U
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 90CRI
Light Source: (196) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4021.3 lumens
Efficiency: N/A
Efficacy: 109.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

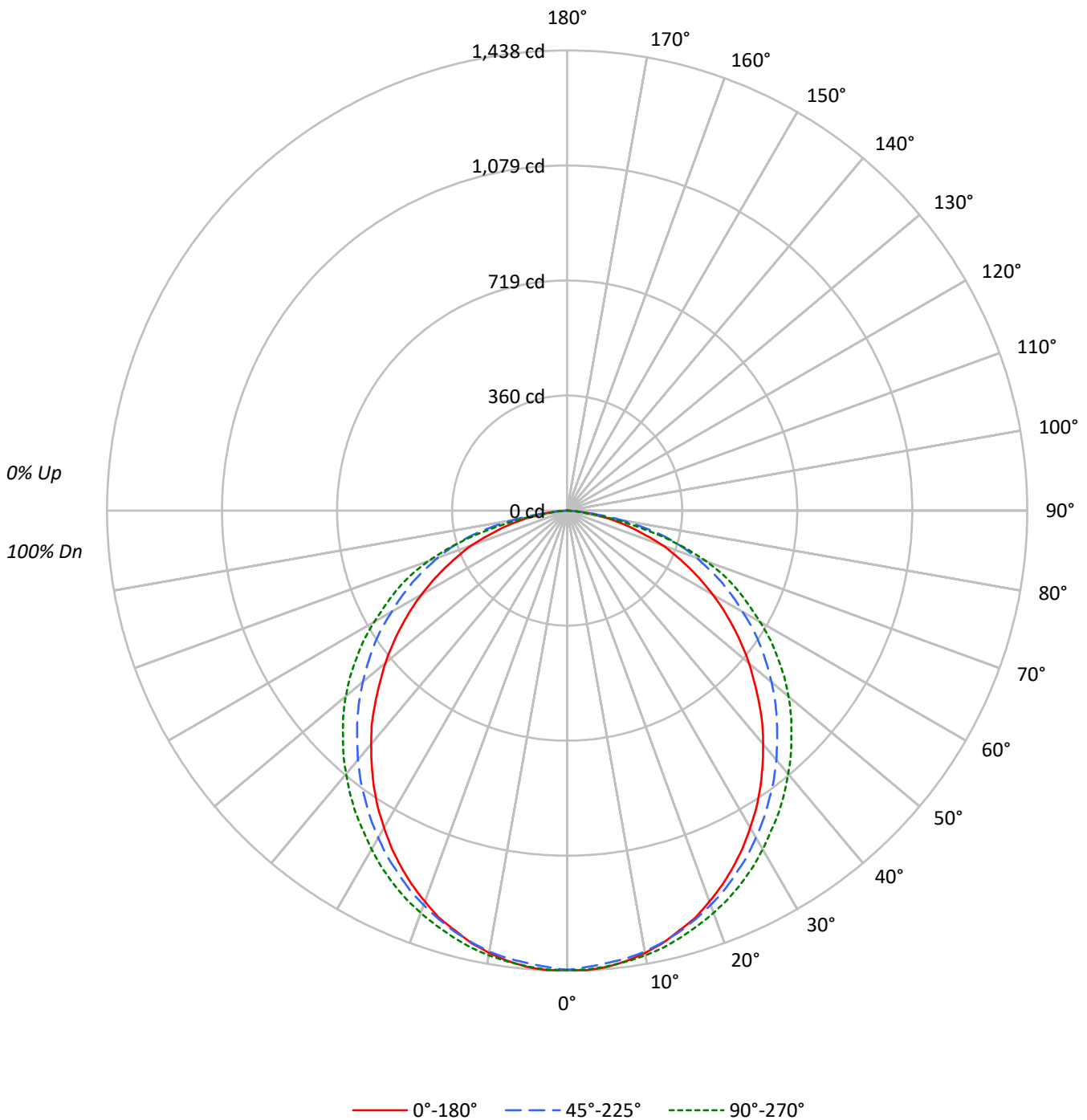
Input Watts (W): 36.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	94	97	94	91	94	91	89	90	88	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3863	3863	3863
5°	3867	3835	3862
10°	3835	3824	3857
15°	3783	3794	3844
20°	3723	3757	3831
25°	3647	3712	3818
30°	3556	3668	3798
35°	3458	3616	3786
40°	3348	3572	3775
45°	3225	3528	3771
50°	3105	3489	3781
55°	2974	3461	3770
60°	2833	3412	3745
65°	2666	3402	3745
70°	2510	3373	3640
75°	2176	3296	3110
80°	1760	2658	2070
85°	1170	923	614



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.6	3.4
10°-20°	385.7	9.6
20°-30°	578.6	14.4
30°-40°	690.2	17.2
40°-50°	713.6	17.7
50°-60°	651.5	16.2
60°-70°	512.7	12.7
70°-80°	298.4	7.4
80°-90°	55.0	1.4
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°	1099.9	27.4
0°-40°	1790.1	44.5
0°-60°	3155.2	78.5
0°-90°	4021.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4021.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1436	1436	1436	1436	1436	
5°	1432	1428	1420	1432	1430	136
15°	1358	1360	1362	1380	1380	383
25°	1228	1234	1250	1280	1286	565
35°	1053	1067	1101	1142	1152	658
45°	847	875	927	979	991	654
55°	634	668	738	792	804	567
65°	419	463	534	576	588	416
75°	209	259	317	311	299	223
85°	38	54	30	24	20	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1435.5	1435.5	1435.5	1435.5	1435.5
2.5°	1437.5	1433.5	1427.6	1437.5	1435.5
5°	1431.5	1427.6	1419.6	1431.5	1429.6
7.5°	1419.6	1415.6	1411.6	1423.6	1421.6
10°	1403.6	1401.6	1399.6	1413.6	1411.6
12.5°	1383.7	1383.7	1381.7	1397.7	1397.7
15°	1357.8	1359.8	1361.8	1379.7	1379.7
17.5°	1333.9	1331.9	1337.8	1357.8	1359.8
20°	1300.0	1303.9	1311.9	1335.8	1337.8
22.5°	1266.1	1270.1	1284.0	1307.9	1313.9
25°	1228.2	1234.2	1250.1	1280.0	1286.0
27.5°	1188.3	1196.3	1218.2	1250.1	1256.1
30°	1144.4	1156.4	1180.3	1216.2	1222.2
32.5°	1100.6	1112.5	1142.4	1178.3	1186.3
35°	1052.7	1066.7	1100.6	1142.4	1152.4
37.5°	1002.9	1020.8	1060.7	1102.6	1114.5
40°	953.0	973.0	1016.8	1060.7	1074.7
42.5°	903.2	923.1	971.0	1020.8	1034.8
45°	847.4	875.3	927.1	979.0	990.9
47.5°	793.5	823.4	881.3	933.1	949.0
50°	741.7	771.6	833.4	887.2	903.2
52.5°	687.9	719.8	785.6	841.4	855.3
55°	634.0	667.9	737.7	791.5	803.5
57.5°	580.2	616.1	687.9	739.7	753.7
60°	526.4	564.2	634.0	685.9	695.8
62.5°	472.5	512.4	584.2	630.0	640.0
65°	418.7	462.6	534.3	576.2	588.2
67.5°	366.9	410.7	480.5	520.4	530.4
70°	319.0	358.9	428.7	458.6	462.6
72.5°	259.2	309.0	376.8	392.8	382.8
75°	209.3	259.2	317.0	311.0	299.1
77.5°	159.5	209.3	247.2	227.3	211.3
80°	113.6	163.5	171.5	141.6	133.6
82.5°	73.8	113.6	95.7	73.8	59.8
85°	37.9	53.8	29.9	23.9	19.9
87.5°	12.0	8.0	4.0	4.0	2.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)