

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: P475401

Luminaire Tested: **14CZ2-39HE-S-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475401
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ2-39HE-S-UNV-L840-CD1-U
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SMOOTH LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

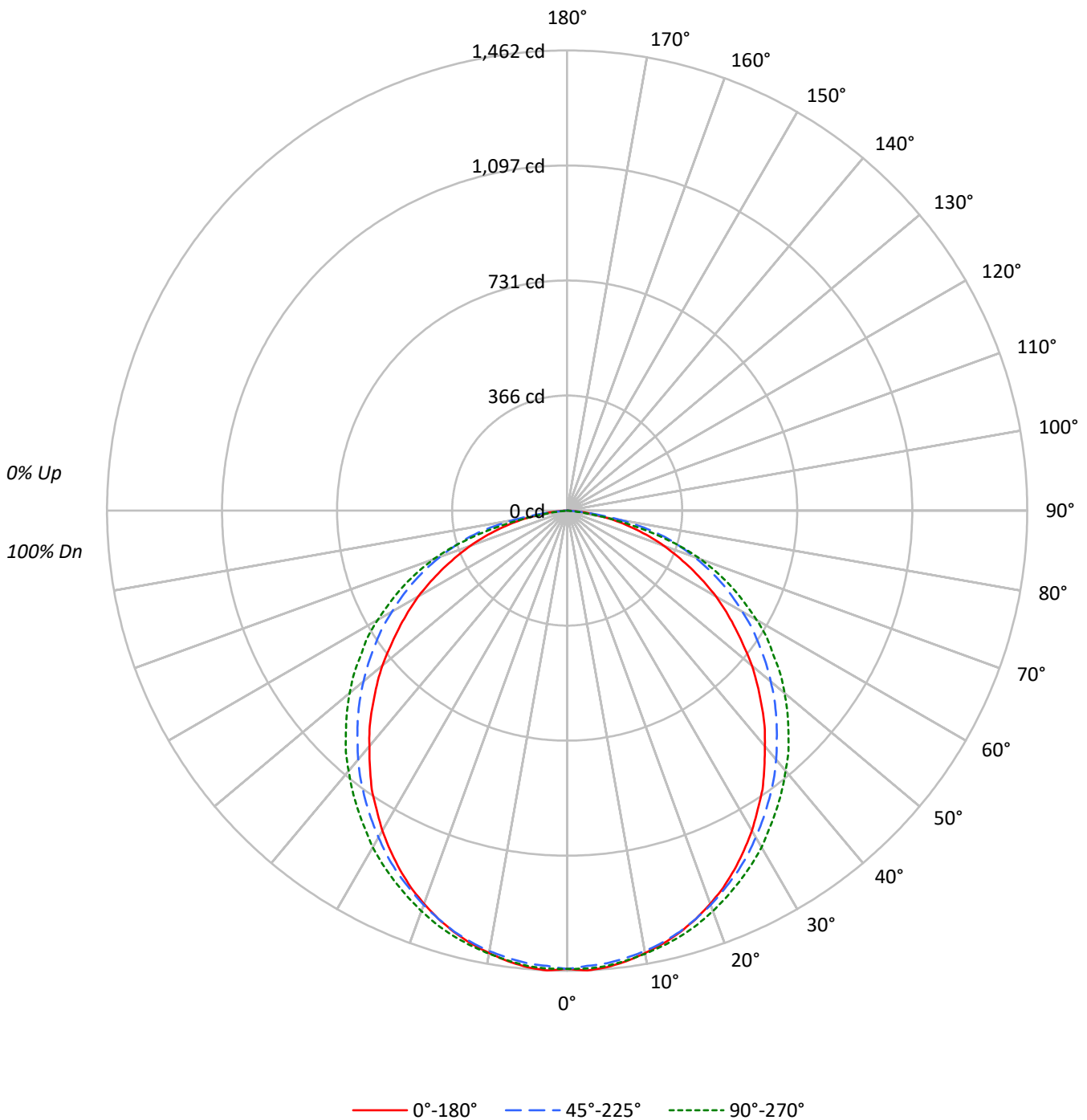
Lumens per Lamp: N/A
Luminaire Lumens: 4070.7 lumens
Efficiency: N/A
Efficacy: 143.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 28.4
Input Voltage (V): 120
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	98	94	91	94	91	89	90	88	86	84
2	99	91	84	78	96	89	82	77	85	80	75	82	77	74	79	75	72	70
3	90	79	71	65	88	78	70	64	75	68	63	72	67	62	70	65	61	59
4	82	70	61	55	80	69	61	54	66	59	54	64	58	53	62	57	52	50
5	76	63	54	47	74	62	53	47	60	52	46	58	51	46	56	50	45	43
6	70	57	48	41	68	56	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	36	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	29	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°	3919	3919	3919
5°	3934	3901	3923
10°	3901	3884	3907
15°	3863	3858	3897
20°	3807	3819	3877
25°	3735	3777	3856
30°	3648	3724	3839
35°	3554	3675	3810
40°	3434	3628	3793
45°	3324	3581	3783
50°	3211	3536	3776
55°	3061	3493	3752
60°	2939	3456	3743
65°	2761	3438	3685
70°	2575	3379	3556
75°	2276	3318	2999
80°	1838	2695	1774
85°	1328	756	188



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	137.7	3.4
10°-20°	392.1	9.6
20°-30°	588.3	14.5
30°-40°	701.3	17.2
40°-50°	724.1	17.8
50°-60°	659.5	16.2
60°-70°	516.7	12.7
70°-80°	299.0	7.3
80°-90°	52.0	1.3
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°	1118.1	27.5
0°-40°	1819.4	44.7
0°-60°	3203.1	78.7
0°-90°	4070.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4070.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1456	1456	1456	1456	1456	
5°	1456	1452	1444	1454	1452	138
15°	1387	1385	1385	1399	1399	391
25°	1258	1262	1272	1297	1299	579
35°	1082	1092	1119	1154	1160	675
45°	873	896	941	984	994	674
55°	652	685	744	792	800	585
65°	434	472	540	575	579	430
75°	219	266	319	309	288	233
85°	43	57	24	8	6	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1456.3	1456.3	1456.3	1456.3	1456.3
2.5°	1462.4	1456.3	1448.1	1456.3	1456.3
5°	1456.3	1452.2	1444.0	1454.2	1452.2
7.5°	1444.0	1439.9	1433.8	1444.0	1442.0
10°	1427.6	1425.6	1421.5	1433.8	1429.7
12.5°	1409.2	1407.2	1405.1	1417.4	1415.4
15°	1386.7	1384.7	1384.7	1399.0	1399.0
17.5°	1360.1	1360.1	1360.1	1378.6	1378.6
20°	1329.5	1329.5	1333.6	1354.0	1354.0
22.5°	1296.7	1296.7	1302.9	1325.4	1327.4
25°	1257.9	1262.0	1272.2	1296.7	1298.8
27.5°	1217.0	1223.1	1237.4	1264.0	1268.1
30°	1174.0	1180.2	1198.6	1229.2	1235.4
32.5°	1127.0	1137.2	1159.7	1190.4	1196.5
35°	1082.0	1092.2	1118.8	1153.6	1159.7
37.5°	1028.8	1045.2	1077.9	1110.6	1120.8
40°	977.7	996.1	1032.9	1071.8	1079.9
42.5°	928.6	944.9	985.9	1028.8	1041.1
45°	873.4	895.9	940.9	983.8	994.0
47.5°	820.2	842.7	893.8	938.8	949.0
50°	767.0	789.5	844.7	889.7	902.0
52.5°	707.7	740.4	795.6	840.6	854.9
55°	652.5	685.2	744.5	791.5	799.7
57.5°	599.3	632.0	697.5	740.4	752.7
60°	546.1	578.8	642.2	685.2	695.4
62.5°	488.8	525.7	591.1	627.9	636.1
65°	433.6	472.5	540.0	574.7	578.8
67.5°	378.4	419.3	484.7	513.4	517.5
70°	327.3	368.2	429.5	456.1	452.0
72.5°	274.1	315.0	374.3	388.6	376.3
75°	218.9	265.9	319.1	308.8	288.4
77.5°	169.8	214.8	249.5	218.9	202.5
80°	118.6	165.7	173.9	135.0	114.5
82.5°	77.7	116.6	94.1	57.3	51.1
85°	43.0	57.3	24.5	8.2	6.1
87.5°	14.3	8.2	4.1	2.0	2.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)