

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: P475501

Luminaire Tested: **14CZ2-48HE-SQR-UNV-L835-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475501
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ2-48HE-SQR-UNV-L835-CD1-U
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SQUARE LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4635.5 lumens
Efficiency: N/A
Efficacy: 129.8 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.34 / 1.43
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

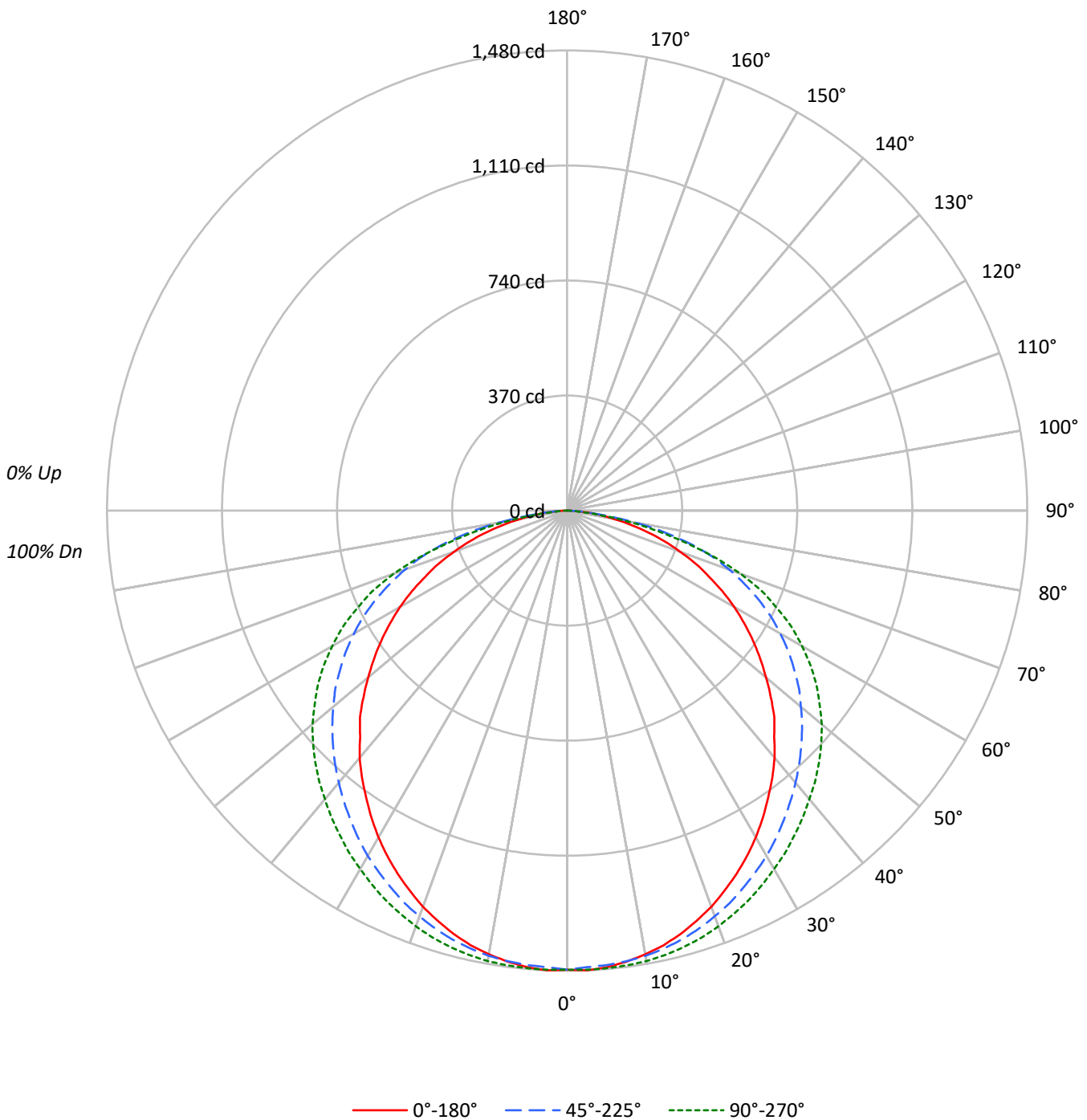
Input Watts (W): 35.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	103	99	95	106	101	97	93	97	93	90		93	90	88		89	87	85	83
2	98	89	82	76	95	87	81	75	84	78	74		81	76	72		77	74	70	68
3	89	78	69	63	86	76	68	62	73	67	61		70	65	60		68	63	59	57
4	81	69	60	53	79	67	59	52	65	57	51		62	56	51		60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44		56	49	44		54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38		50	43	38		49	43	38	36
7	63	50	41	34	62	49	40	34	47	39	34		46	39	34		44	38	33	31
8	59	45	36	30	57	44	36	30	43	36	30		42	35	30		41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27		39	32	27		37	31	27	25
10	52	38	30	25	50	38	30	25	37	29	24		36	29	24		35	29	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3973	3973	3973
5°	3981	3963	3992
10°	3959	3973	4020
15°	3927	3978	4047
20°	3883	3977	4074
25°	3828	3976	4104
30°	3770	3986	4136
35°	3702	3990	4188
40°	3646	4014	4258
45°	3586	4055	4359
50°	3496	4109	4477
55°	3426	4182	4593
60°	3339	4262	4698
65°	3209	4334	4751
70°	3038	4367	4665
75°	2776	4218	4028
80°	2332	3448	3002
85°	1698	1738	1130



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.2	3.0
10°-20°	404.1	8.7
20°-30°	617.8	13.3
30°-40°	758.3	16.4
40°-50°	815.5	17.6
50°-60°	782.8	16.9
60°-70°	648.5	14.0
70°-80°	388.7	8.4
80°-90°	79.6	1.7
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°	1162.1	25.1
0°-40°	1920.4	41.4
0°-60°	3518.7	75.9
0°-90°	4635.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4635.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1476	1476	1476	1476	1476	
5°	1474	1471	1467	1479	1478	140
15°	1410	1416	1428	1450	1453	397
25°	1289	1310	1339	1374	1382	594
35°	1127	1165	1215	1262	1275	706
45°	942	992	1065	1124	1145	725
55°	730	800	891	957	979	652
65°	504	586	681	734	746	500
75°	267	348	406	397	387	282
85°	55	80	56	38	37	69
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1476.4	1476.4	1476.4	1476.4	1476.4
2.5°	1480.3	1476.4	1469.9	1480.3	1477.7
5°	1473.8	1471.2	1467.2	1479.0	1477.7
7.5°	1463.3	1463.3	1462.0	1476.4	1475.1
10°	1448.9	1451.5	1454.1	1471.2	1471.2
12.5°	1431.9	1434.5	1442.4	1462.0	1463.3
15°	1409.6	1416.2	1428.0	1450.2	1452.8
17.5°	1383.5	1393.9	1409.6	1435.8	1439.8
20°	1356.0	1367.8	1388.7	1417.5	1422.7
22.5°	1323.3	1340.3	1366.5	1396.6	1403.1
25°	1289.2	1310.2	1339.0	1374.3	1382.2
27.5°	1252.6	1277.5	1311.5	1348.1	1357.3
30°	1213.3	1242.1	1282.7	1322.0	1331.1
32.5°	1171.4	1205.5	1250.0	1293.2	1304.9
35°	1126.9	1164.9	1214.6	1261.7	1274.8
37.5°	1083.7	1124.3	1179.3	1230.3	1244.7
40°	1037.9	1081.1	1142.6	1196.3	1212.0
42.5°	985.6	1037.9	1104.7	1162.3	1180.6
45°	942.4	992.1	1065.4	1124.3	1145.3
47.5°	888.7	946.3	1024.8	1087.7	1108.6
50°	835.1	900.5	981.6	1047.1	1069.3
52.5°	782.7	849.5	939.8	1003.9	1023.5
55°	730.3	799.7	891.3	956.8	979.0
57.5°	675.4	751.3	844.2	909.7	928.0
60°	620.4	696.3	791.9	854.7	873.0
62.5°	562.8	644.0	739.5	797.1	815.4
65°	503.9	586.4	680.6	734.3	746.1
67.5°	448.9	532.7	617.8	667.5	679.3
70°	386.1	475.1	555.0	591.6	592.9
72.5°	328.5	411.0	486.9	497.4	494.8
75°	267.0	348.2	405.7	396.6	387.4
77.5°	206.8	289.3	319.4	293.2	286.6
80°	150.5	225.1	222.5	197.6	193.7
82.5°	103.4	155.8	128.3	104.7	96.9
85°	55.0	79.8	56.3	38.0	36.6
87.5°	20.9	19.6	11.8	7.9	7.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)