

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: P475519

Luminaire Tested: **14CZ2-48HE-SQR-UNV-L850-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475519  
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-L850-CD1-U  
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SQUARE LENS  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4723.6 lumens  
Efficiency: N/A  
Efficacy: 132.3 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

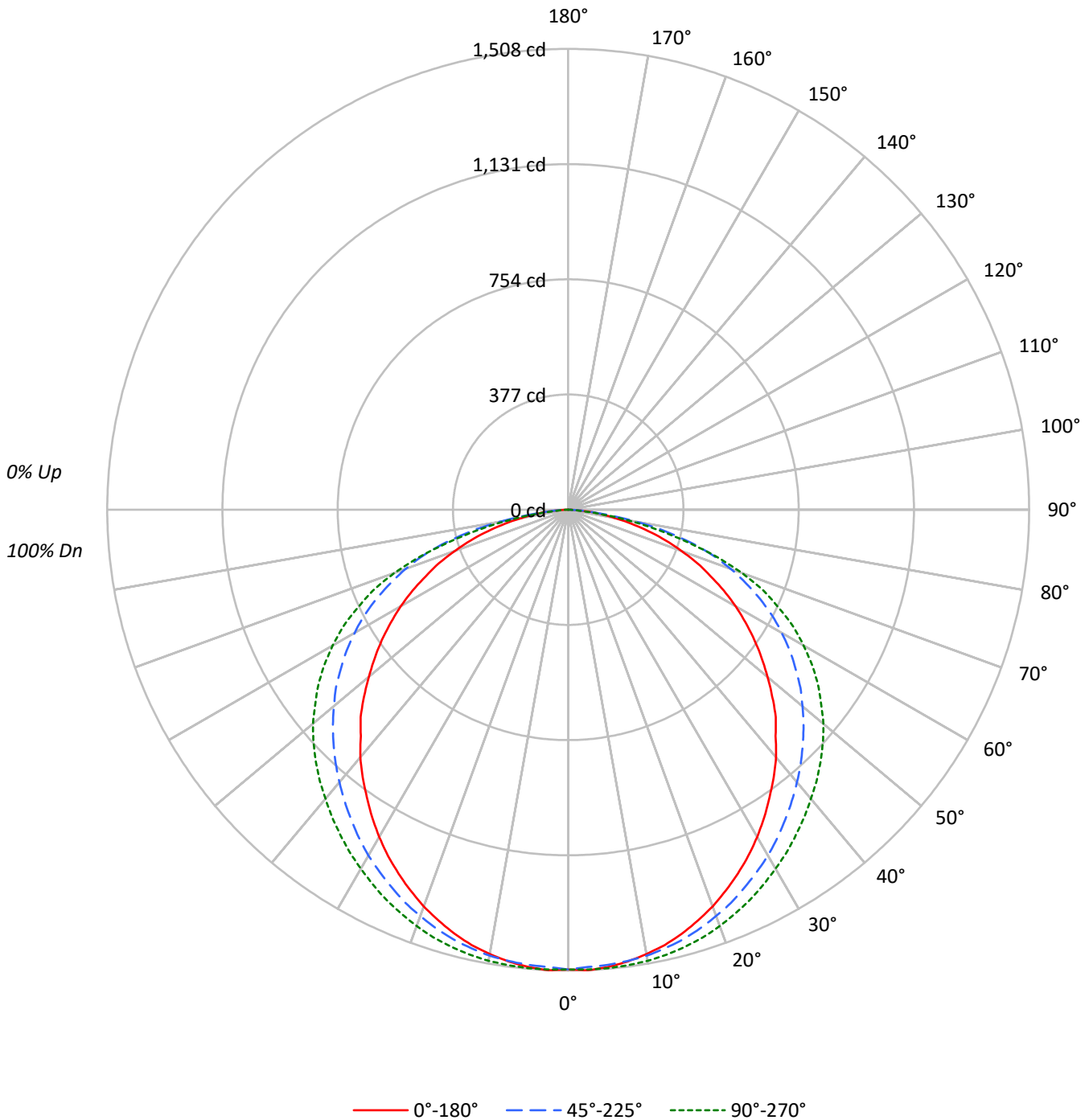
Input Watts (W): 35.7  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	4049	4049	4049
5°	4057	4039	4068
10°	4034	4049	4096
15°	4002	4054	4124
20°	3957	4052	4152
25°	3901	4051	4182
30°	3842	4062	4215
35°	3772	4066	4268
40°	3716	4090	4338
45°	3655	4132	4441
50°	3562	4188	4562
55°	3491	4261	4680
60°	3402	4343	4788
65°	3270	4416	4840
70°	3096	4449	4754
75°	2829	4299	4105
80°	2377	3513	3059
85°	1729	1772	1152



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	142.9	3.0
10°-20°	411.8	8.7
20°-30°	629.6	13.3
30°-40°	772.7	16.4
40°-50°	831.0	17.6
50°-60°	797.7	16.9
60°-70°	660.8	14.0
70°-80°	396.1	8.4
80°-90°	81.1	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°	1184.2	25.1
0°-40°	1956.9	41.4
0°-60°	3585.6	75.9
0°-90°	4723.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4723.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1504	1504	1504	1504	1504	
5°	1502	1499	1495	1507	1506	143
15°	1436	1443	1455	1478	1480	405
25°	1314	1335	1364	1400	1408	605
35°	1148	1187	1238	1286	1299	719
45°	960	1011	1086	1146	1167	738
55°	744	815	908	975	998	665
65°	514	598	694	748	760	509
75°	272	355	414	404	395	288
85°	56	81	57	39	37	71
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1504.5	1504.5	1504.5	1504.5	1504.5
2.5°	1508.5	1504.5	1497.8	1508.5	1505.8
5°	1501.8	1499.1	1495.1	1507.1	1505.8
7.5°	1491.1	1491.1	1489.8	1504.5	1503.1
10°	1476.4	1479.1	1481.8	1499.1	1499.1
12.5°	1459.1	1461.8	1469.8	1489.8	1491.1
15°	1436.4	1443.1	1455.1	1477.8	1480.4
17.5°	1409.8	1420.4	1436.4	1463.1	1467.1
20°	1381.7	1393.8	1415.1	1444.4	1449.8
22.5°	1348.4	1365.7	1392.4	1423.1	1429.8
25°	1313.7	1335.1	1364.4	1400.4	1408.4
27.5°	1276.4	1301.7	1336.4	1373.7	1383.1
30°	1236.4	1265.7	1307.1	1347.1	1356.4
32.5°	1193.7	1228.4	1273.7	1317.7	1329.7
35°	1148.3	1187.0	1237.7	1285.7	1299.1
37.5°	1104.3	1145.7	1201.7	1253.7	1268.4
40°	1057.7	1101.7	1164.3	1219.0	1235.0
42.5°	1004.3	1057.7	1125.7	1184.4	1203.0
45°	960.3	1011.0	1085.7	1145.7	1167.0
47.5°	905.6	964.3	1044.3	1108.3	1129.7
50°	850.9	917.6	1000.3	1067.0	1089.7
52.5°	797.6	865.6	957.6	1023.0	1043.0
55°	744.2	814.9	908.3	975.0	997.6
57.5°	688.2	765.6	860.3	926.9	945.6
60°	632.2	709.5	806.9	870.9	889.6
62.5°	573.5	656.2	753.6	812.2	830.9
65°	513.5	597.5	693.5	748.2	760.2
67.5°	457.5	542.8	629.5	680.2	692.2
70°	393.5	484.1	565.5	602.8	604.2
72.5°	334.8	418.8	496.1	506.8	504.2
75°	272.1	354.8	413.5	404.1	394.8
77.5°	210.7	294.8	325.4	298.8	292.1
80°	153.4	229.4	226.7	201.4	197.4
82.5°	105.4	158.7	130.7	106.7	98.7
85°	56.0	81.4	57.4	38.7	37.3
87.5°	21.3	20.0	12.0	8.0	8.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)