

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: P475494

Luminaire Tested: **14CZ2-20-SQR-UNV-L835-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475494
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ2-20-SQR-UNV-L835-CD1-U
Description: 1'X4' TROFFER LED MODULE, SQUARE LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

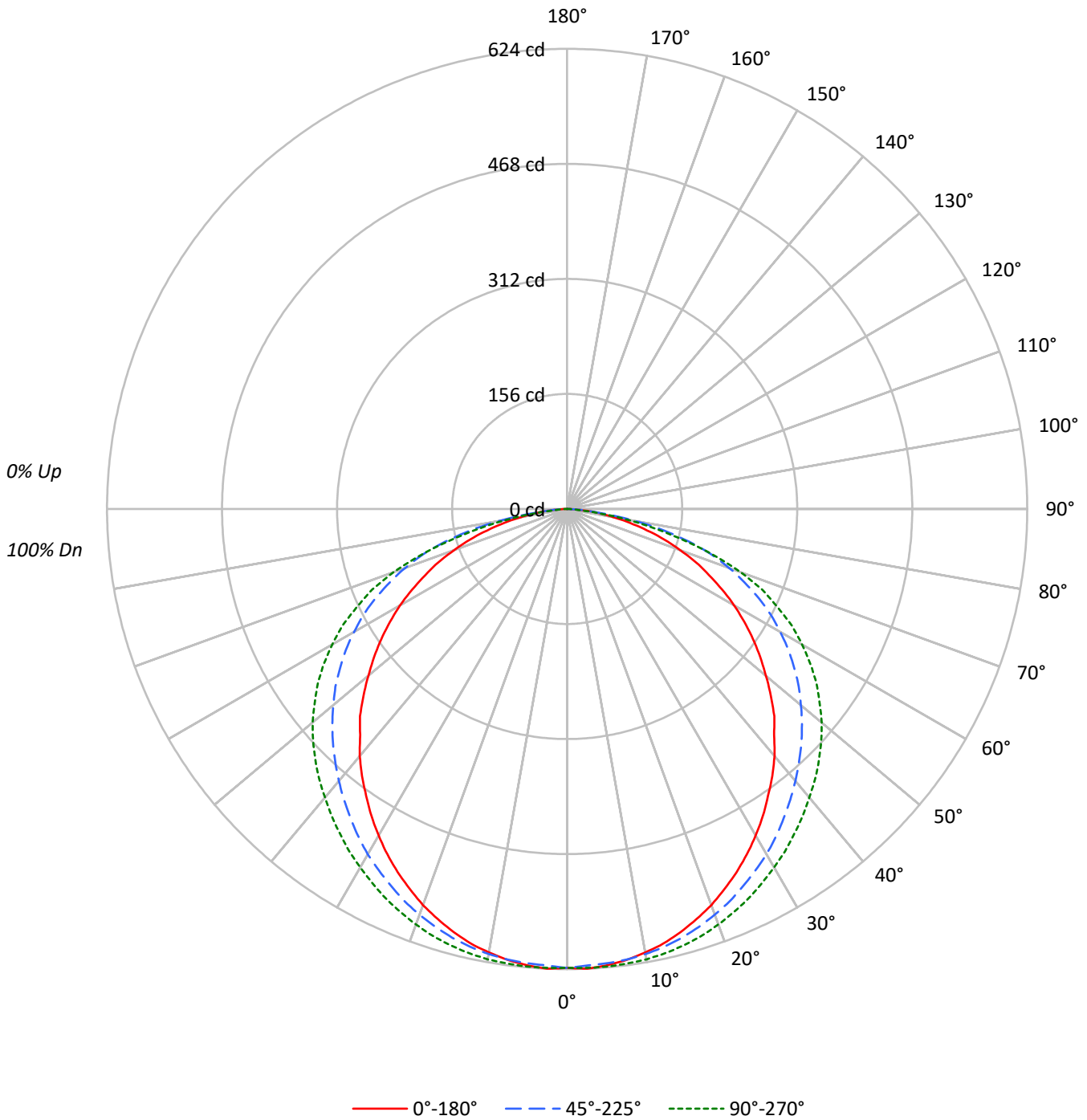
Lumens per Lamp: N/A
Luminaire Lumens: 1954.0 lumens
Efficiency: N/A
Efficacy: 125.3 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.34 / 1.43
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 15.6
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°	1675	1675	1675
5°	1678	1671	1683
10°	1669	1675	1694
15°	1655	1677	1706
20°	1637	1676	1717
25°	1613	1676	1730
30°	1589	1680	1743
35°	1560	1682	1765
40°	1537	1692	1795
45°	1512	1709	1837
50°	1474	1732	1887
55°	1445	1763	1936
60°	1407	1796	1981
65°	1352	1827	2003
70°	1281	1840	1966
75°	1170	1778	1698
80°	982	1454	1266
85°	716	732	475



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.1	3.0
10°-20°	170.3	8.7
20°-30°	260.4	13.3
30°-40°	319.6	16.4
40°-50°	343.7	17.6
50°-60°	330.0	16.9
60°-70°	273.4	14.0
70°-80°	163.8	8.4
80°-90°	33.5	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°	489.8	25.1
0°-40°	809.5	41.4
0°-60°	1483.2	75.9
0°-90°	1954.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1954.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	622	622	622	622	622	
5°	621	620	618	623	623	59
15°	594	597	602	611	612	168
25°	543	552	564	579	583	250
35°	475	491	512	532	537	297
45°	397	418	449	474	483	305
55°	308	337	376	403	413	275
65°	212	247	287	310	314	211
75°	112	147	171	167	163	119
85°	23	34	24	16	15	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	622.3	622.3	622.3	622.3	622.3
2.5°	624.0	622.3	619.6	624.0	622.9
5°	621.2	620.1	618.5	623.4	622.9
7.5°	616.8	616.8	616.3	622.3	621.8
10°	610.7	611.8	612.9	620.1	620.1
12.5°	603.6	604.7	608.0	616.3	616.8
15°	594.2	596.9	601.9	611.3	612.4
17.5°	583.2	587.6	594.2	605.2	606.9
20°	571.6	576.5	585.4	597.5	599.7
22.5°	557.8	564.9	576.0	588.7	591.4
25°	543.4	552.3	564.4	579.3	582.6
27.5°	528.0	538.5	552.8	568.3	572.1
30°	511.4	523.6	540.7	557.2	561.1
32.5°	493.8	508.1	526.9	545.1	550.1
35°	475.0	491.0	512.0	531.8	537.4
37.5°	456.8	473.9	497.1	518.6	524.7
40°	437.5	455.7	481.6	504.3	510.9
42.5°	415.4	437.5	465.6	489.9	497.6
45°	397.2	418.2	449.1	473.9	482.7
47.5°	374.6	398.9	432.0	458.5	467.3
50°	352.0	379.6	413.8	441.4	450.7
52.5°	329.9	358.1	396.1	423.2	431.4
55°	307.9	337.1	375.7	403.3	412.7
57.5°	284.7	316.7	355.9	383.4	391.2
60°	261.5	293.5	333.8	360.3	368.0
62.5°	237.2	271.4	311.7	336.0	343.7
65°	212.4	247.2	286.9	309.5	314.5
67.5°	189.2	224.5	260.4	281.4	286.3
70°	162.8	200.3	233.9	249.4	249.9
72.5°	138.5	173.2	205.2	209.6	208.5
75°	112.5	146.8	171.0	167.2	163.3
77.5°	87.2	121.9	134.6	123.6	120.8
80°	63.4	94.9	93.8	83.3	81.7
82.5°	43.6	65.7	54.1	44.1	40.8
85°	23.2	33.7	23.7	16.0	15.4
87.5°	8.8	8.3	5.0	3.3	3.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)