

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: P475283

Luminaire Tested: **22CZ2-20-SQR-UNV-L840-CD1-U**

Issue Date: 02/10/2021

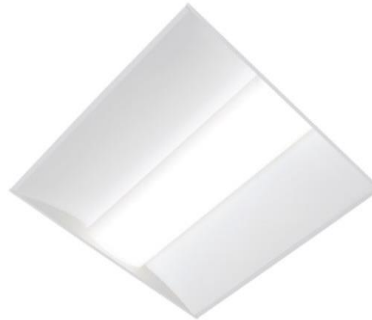
Test Information

Test Method: LM-79-08
Report Number: P475283
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-20-SQR-UNV-L840-CD1-U
Description: 2'X2' TROFFER LED MODULE, SQUARE LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2073.7 lumens
Efficiency: N/A
Efficacy: 128.0 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

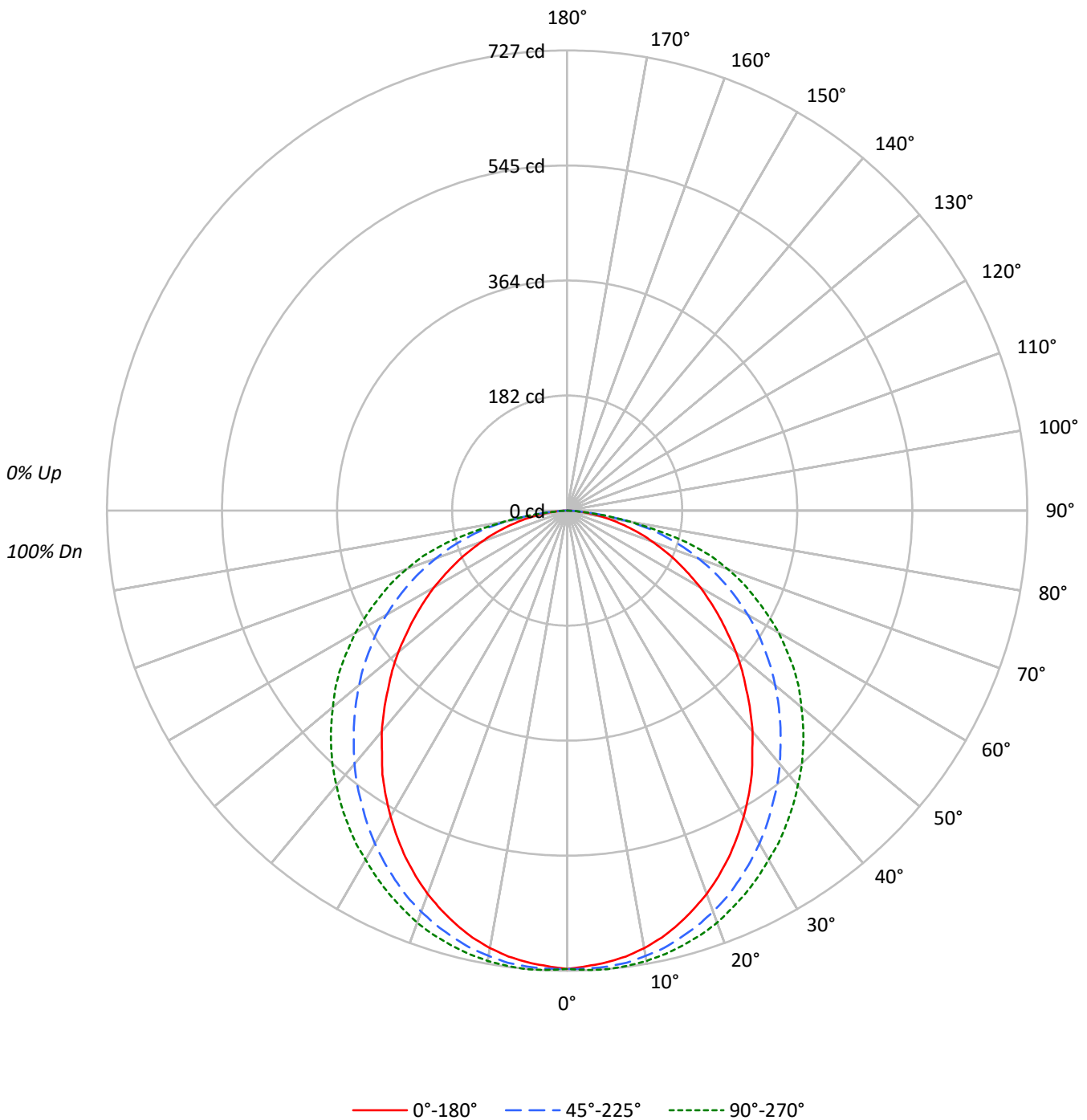
Input Watts (W): 16.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	94	97	94	91		93	91	88		90	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75		81	77	73		78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62		72	66	61		69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53		64	57	52		61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46		57	50	45		55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40		52	45	40		50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35		47	40	35		46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32		43	36	31		42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28		40	33	28		39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26		37	30	26		36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1949	1949	1949
5°	1935	1954	1965
10°	1918	1952	1974
15°	1887	1944	1980
20°	1846	1931	1984
25°	1794	1911	1981
30°	1734	1887	1979
35°	1671	1859	1985
40°	1601	1836	1992
45°	1525	1813	2007
50°	1459	1796	2023
55°	1381	1782	2055
60°	1308	1775	2077
65°	1222	1761	2093
70°	1123	1734	2122
75°	1014	1688	2046
80°	869	1495	1540
85°	701	880	701



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.7	3.3
10°-20°	196.3	9.5
20°-30°	294.9	14.2
30°-40°	351.7	17.0
40°-50°	363.6	17.5
50°-60°	334.3	16.1
60°-70°	266.1	12.8
70°-80°	162.6	7.8
80°-90°	35.3	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°	559.9	27.0
0°-40°	911.6	44.0
0°-60°	1609.6	77.6
0°-90°	2073.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2073.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	724	724	724	724	724	
5°	716	718	723	726	727	68
15°	677	685	698	708	711	191
25°	604	619	644	661	667	278
35°	509	530	566	596	604	317
45°	401	429	476	515	528	310
55°	294	327	380	423	438	263
65°	192	224	276	315	329	190
75°	98	126	162	191	197	104
85°	23	28	28	25	23	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	724.3	724.3	724.3	724.3	724.3
2.5°	720.4	721.4	724.3	726.4	726.4
5°	716.5	718.5	723.4	726.4	727.4
7.5°	710.6	713.5	720.4	724.3	725.4
10°	701.8	705.7	714.5	720.4	722.4
12.5°	690.9	696.8	707.7	715.5	717.5
15°	677.2	685.0	697.8	707.7	710.6
17.5°	661.4	671.2	687.0	698.8	702.8
20°	644.6	654.5	674.2	688.0	692.9
22.5°	625.0	637.8	660.4	676.2	680.1
25°	604.3	619.0	643.6	661.4	667.3
27.5°	581.7	599.4	626.0	647.7	652.6
30°	558.0	576.8	607.3	630.9	636.8
32.5°	533.4	555.1	587.5	614.1	622.1
35°	508.8	530.5	565.9	595.5	604.3
37.5°	480.3	505.9	545.3	575.8	586.6
40°	455.7	480.3	522.6	556.1	567.0
42.5°	428.1	454.7	499.0	535.4	548.2
45°	400.6	429.1	476.4	514.8	527.5
47.5°	375.0	403.5	452.7	493.1	505.9
50°	348.4	377.9	429.1	470.5	483.2
52.5°	319.9	352.3	405.5	446.8	461.7
55°	294.3	326.7	379.9	423.2	438.0
57.5°	267.7	301.1	356.3	397.6	411.4
60°	243.1	275.5	329.8	370.1	385.9
62.5°	216.5	249.9	303.1	342.5	357.3
65°	191.9	224.5	276.5	315.0	328.7
67.5°	167.3	199.8	249.0	285.4	301.1
70°	142.7	175.2	220.4	255.9	269.7
72.5°	121.1	149.6	192.9	225.4	238.2
75°	97.5	126.0	162.4	190.9	196.8
77.5°	75.8	101.4	131.9	144.6	146.7
80°	56.1	75.8	96.5	99.4	99.4
82.5°	37.4	52.2	60.0	61.0	60.0
85°	22.7	27.6	28.5	24.6	22.7
87.5°	7.8	7.8	4.9	2.9	1.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)