

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: P475504

Luminaire Tested: **14CZ2-25-SQR-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475504
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ2-25-SQR-UNV-L840-CD1-U
Description: 1'X4' TROFFER LED MODULE, SQUARE LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

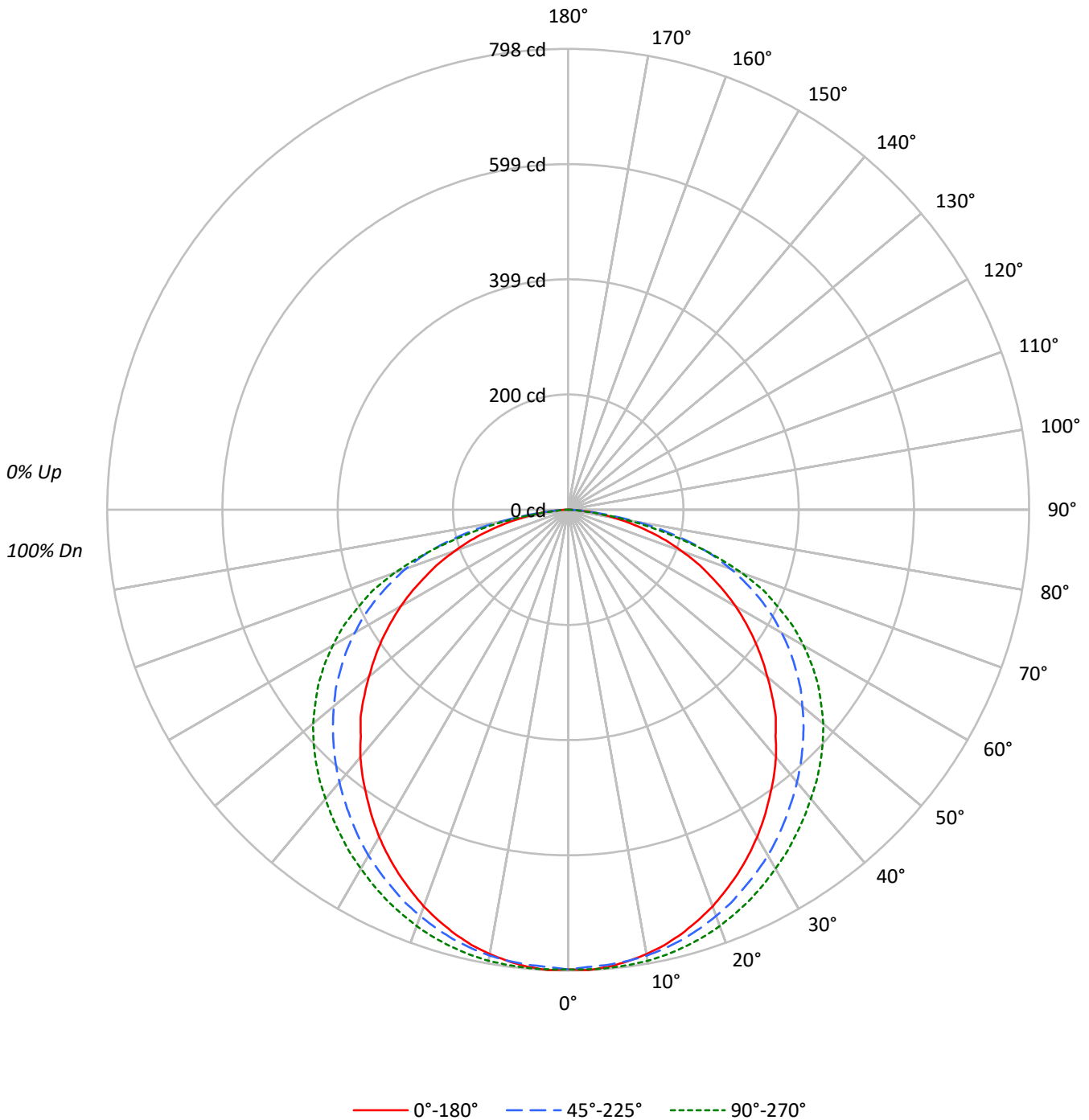
Lumens per Lamp: N/A
Luminaire Lumens: 2499.3 lumens
Efficiency: N/A
Efficacy: 131.5 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.34 / 1.43
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19
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



TEST NUMBER: P475504
CATALOG NUMBER: 14CZ2-25-SQR-UNV-L840-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P475504

CATALOG NUMBER: 14CZ2-25-SQR-UNV-L840-CD1-U

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°	2142	2142	2142
5°	2146	2137	2152
10°	2135	2142	2167
15°	2117	2145	2182
20°	2094	2144	2197
25°	2064	2143	2213
30°	2033	2149	2230
35°	1996	2151	2258
40°	1966	2164	2296
45°	1934	2186	2350
50°	1885	2216	2413
55°	1848	2255	2476
60°	1800	2298	2533
65°	1730	2337	2561
70°	1638	2354	2515
75°	1497	2275	2172
80°	1258	1860	1618
85°	914	936	611



TEST NUMBER: P475504

CATALOG NUMBER: 14CZ2-25-SQR-UNV-L840-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.6	3.0
10°-20°	217.9	8.7
20°-30°	333.1	13.3
30°-40°	408.9	16.4
40°-50°	439.7	17.6
50°-60°	422.1	16.9
60°-70°	349.7	14.0
70°-80°	209.6	8.4
80°-90°	42.9	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°	626.5	25.1
0°-40°	1035.4	41.4
0°-60°	1897.1	75.9
0°-90°	2499.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2499.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	796	796	796	796	796	
5°	795	793	791	797	797	75
15°	760	764	770	782	783	214
25°	695	706	722	741	745	320
35°	608	628	655	680	687	381
45°	508	535	574	606	618	391
55°	394	431	481	516	528	352
65°	272	316	367	396	402	269
75°	144	188	219	214	209	152
85°	30	43	30	20	20	37
90°	0	0	0	0	0	



TEST NUMBER: P475504

CATALOG NUMBER: 14CZ2-25-SQR-UNV-L840-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	796.0	796.0	796.0	796.0	796.0
2.5°	798.1	796.0	792.5	798.1	796.7
5°	794.6	793.2	791.1	797.4	796.7
7.5°	788.9	788.9	788.2	796.0	795.3
10°	781.2	782.6	784.0	793.2	793.2
12.5°	772.0	773.4	777.7	788.2	788.9
15°	760.0	763.5	769.9	781.9	783.3
17.5°	745.9	751.5	760.0	774.1	776.2
20°	731.1	737.4	748.7	764.2	767.1
22.5°	713.4	722.6	736.7	753.0	756.5
25°	695.1	706.4	721.9	741.0	745.2
27.5°	675.3	688.7	707.1	726.8	731.8
30°	654.2	669.7	691.6	712.7	717.7
32.5°	631.6	649.9	673.9	697.2	703.6
35°	607.6	628.1	654.9	680.3	687.3
37.5°	584.3	606.2	635.8	663.3	671.1
40°	559.6	582.9	616.1	645.0	653.5
42.5°	531.4	559.6	595.6	626.6	636.5
45°	508.1	534.9	574.4	606.2	617.5
47.5°	479.2	510.2	552.5	586.4	597.7
50°	450.2	485.5	529.3	564.5	576.5
52.5°	422.0	458.0	506.7	541.3	551.8
55°	393.8	431.2	480.6	515.8	527.8
57.5°	364.1	405.1	455.2	490.4	500.3
60°	334.5	375.4	426.9	460.8	470.7
62.5°	303.4	347.2	398.7	429.8	439.6
65°	271.7	316.1	367.0	395.9	402.2
67.5°	242.0	287.2	333.1	359.9	366.2
70°	208.2	256.2	299.2	319.0	319.7
72.5°	177.1	221.6	262.5	268.2	266.7
75°	144.0	187.7	218.8	213.8	208.9
77.5°	111.5	156.0	172.2	158.1	154.5
80°	81.2	121.4	120.0	106.6	104.4
82.5°	55.7	84.0	69.2	56.5	52.2
85°	29.6	43.0	30.3	20.5	19.8
87.5°	11.3	10.6	6.4	4.2	4.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)