

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: P474411

Luminaire Tested: **24CZ2-30-HRP-UNV-L835-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474411
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-30-HRP-UNV-L835-CD1-U
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS W/ HRP INSERT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

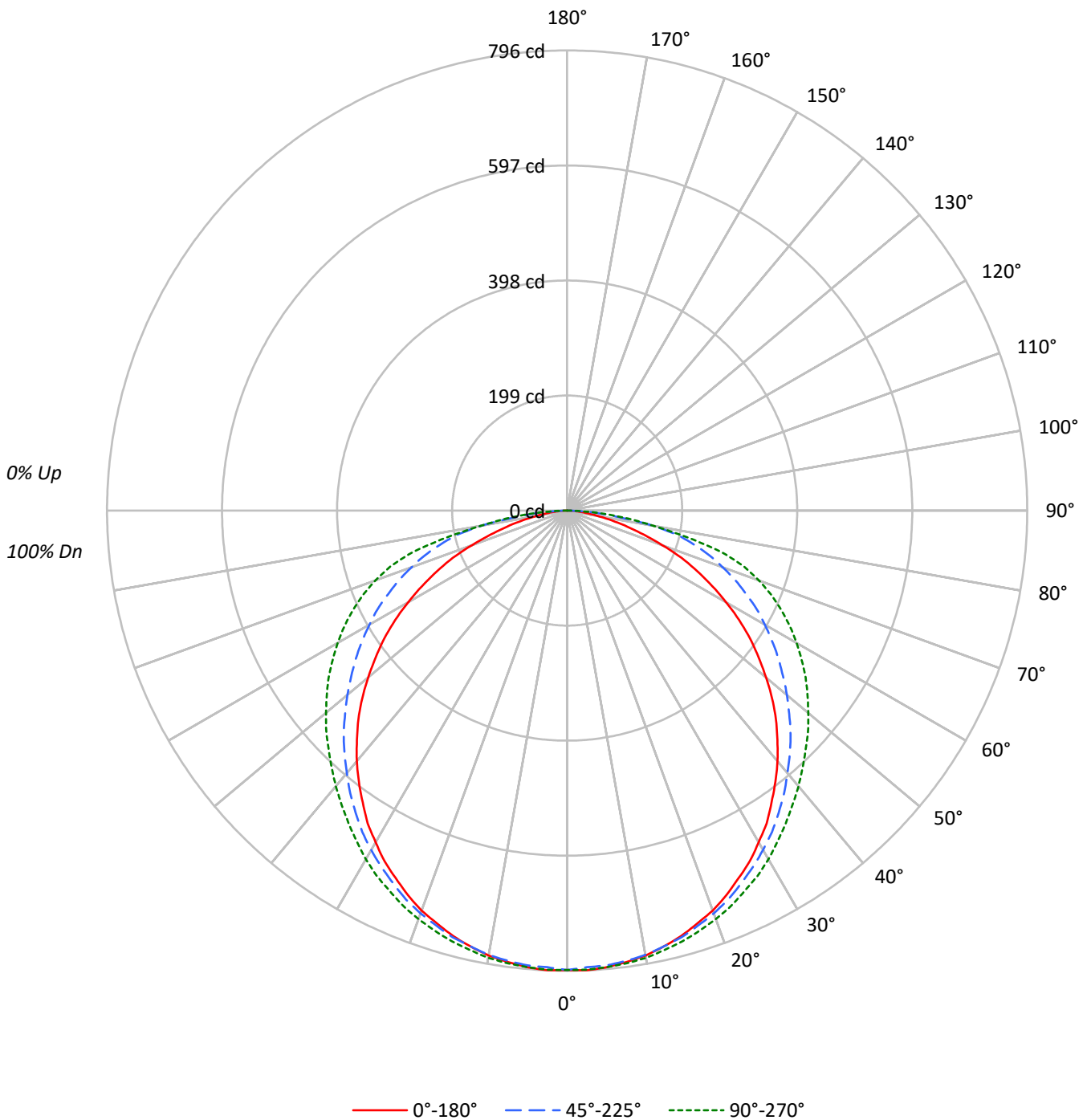
Lumens per Lamp: N/A
Luminaire Lumens: 2449.8 lumens
Efficiency: N/A
Efficacy: 103.8 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.6
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



TEST NUMBER: P474411
CATALOG NUMBER: 24CZ2-30-HRP-UNV-L835-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P474411

CATALOG NUMBER: 24CZ2-30-HRP-UNV-L835-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	98	94	105	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	59	68	63	58	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	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	42	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	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	24	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1069	1069	1069
5°	1071	1067	1071
10°	1068	1066	1073
15°	1061	1064	1074
20°	1054	1062	1076
25°	1041	1057	1078
30°	1029	1053	1082
35°	1012	1048	1083
40°	994	1041	1093
45°	972	1040	1110
50°	940	1039	1140
55°	907	1046	1181
60°	855	1062	1234
65°	790	1088	1303
70°	690	1126	1388
75°	560	1184	1434
80°	414	1161	1161
85°	316	855	965



TEST NUMBER: P474411

CATALOG NUMBER: 24CZ2-30-HRP-UNV-L835-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.3	3.1
10°-20°	216.2	8.8
20°-30°	329.2	13.4
30°-40°	399.7	16.3
40°-50°	422.3	17.2
50°-60°	398.5	16.3
60°-70°	331.3	13.5
70°-80°	218.0	8.9
80°-90°	59.4	2.4
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°	620.7	25.3
0°-40°	1020.4	41.7
0°-60°	1841.1	75.2
0°-90°	2449.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2449.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	795	795	795	795	795	
5°	793	793	790	793	793	75
15°	762	763	764	771	771	215
25°	702	706	712	724	726	324
35°	616	624	638	654	660	386
45°	511	521	547	573	584	393
55°	387	403	446	488	504	344
65°	248	277	342	392	409	245
75°	108	157	228	270	276	116
85°	20	45	55	62	62	25
90°	0	0	0	0	0	



TEST NUMBER: P474411

CATALOG NUMBER: 24CZ2-30-HRP-UNV-L835-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	794.8	794.8	794.8	794.8	794.8
2.5°	795.9	794.8	790.7	794.8	794.8
5°	792.8	792.8	789.7	792.8	792.8
7.5°	787.7	787.7	785.6	789.7	789.7
10°	781.5	781.5	780.5	785.6	785.6
12.5°	772.3	773.3	772.3	778.4	778.4
15°	762.0	763.0	764.1	771.3	771.3
17.5°	748.7	750.7	752.8	760.9	762.0
20°	736.4	737.4	741.5	750.7	751.8
22.5°	720.0	723.0	728.2	737.4	740.5
25°	701.5	705.6	711.8	724.1	726.1
27.5°	684.1	687.1	695.4	708.7	712.8
30°	662.5	667.7	677.9	691.3	696.4
32.5°	642.0	647.1	659.5	673.8	677.9
35°	616.4	623.6	637.9	654.3	659.5
37.5°	591.8	598.9	616.4	634.8	641.0
40°	566.1	574.3	592.8	614.3	622.5
42.5°	538.4	549.7	570.2	593.8	603.0
45°	510.7	521.0	546.6	573.3	583.6
47.5°	481.0	493.4	521.0	552.8	565.2
50°	449.3	464.6	496.4	531.3	544.6
52.5°	417.5	434.8	470.7	509.7	524.1
55°	386.6	403.0	446.1	488.2	503.6
57.5°	352.8	373.4	420.5	465.6	481.0
60°	317.9	340.5	394.8	442.0	458.4
62.5°	283.0	308.7	370.2	417.5	434.8
65°	248.2	276.9	341.6	391.8	409.3
67.5°	214.3	246.1	314.8	365.2	382.5
70°	175.4	215.4	286.1	335.4	352.8
72.5°	139.5	185.7	258.4	304.6	320.0
75°	107.7	156.9	227.7	269.7	275.9
77.5°	78.9	128.2	195.9	210.2	211.3
80°	53.4	102.5	149.8	147.7	149.8
82.5°	34.8	76.9	94.3	105.7	106.6
85°	20.5	45.2	55.4	61.6	62.5
87.5°	10.2	15.4	19.5	20.5	22.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)