

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: P291869

Luminaire Tested: **22GR-LD5-20-F1-UNV-L92765-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P291869
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1901-084-23)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22GR-LD5-20-F1-UNV-L92765-W2A1-U-4000K
Description: GRLED 2x2 TUNABLE WHITE TROFFER
WITH F1 LENS
Light Source: (168) 90 CRI LEDS TUNED TO 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1836.0 lumens
Efficiency: N/A
Efficacy: 117.5 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.19 / 1.24
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

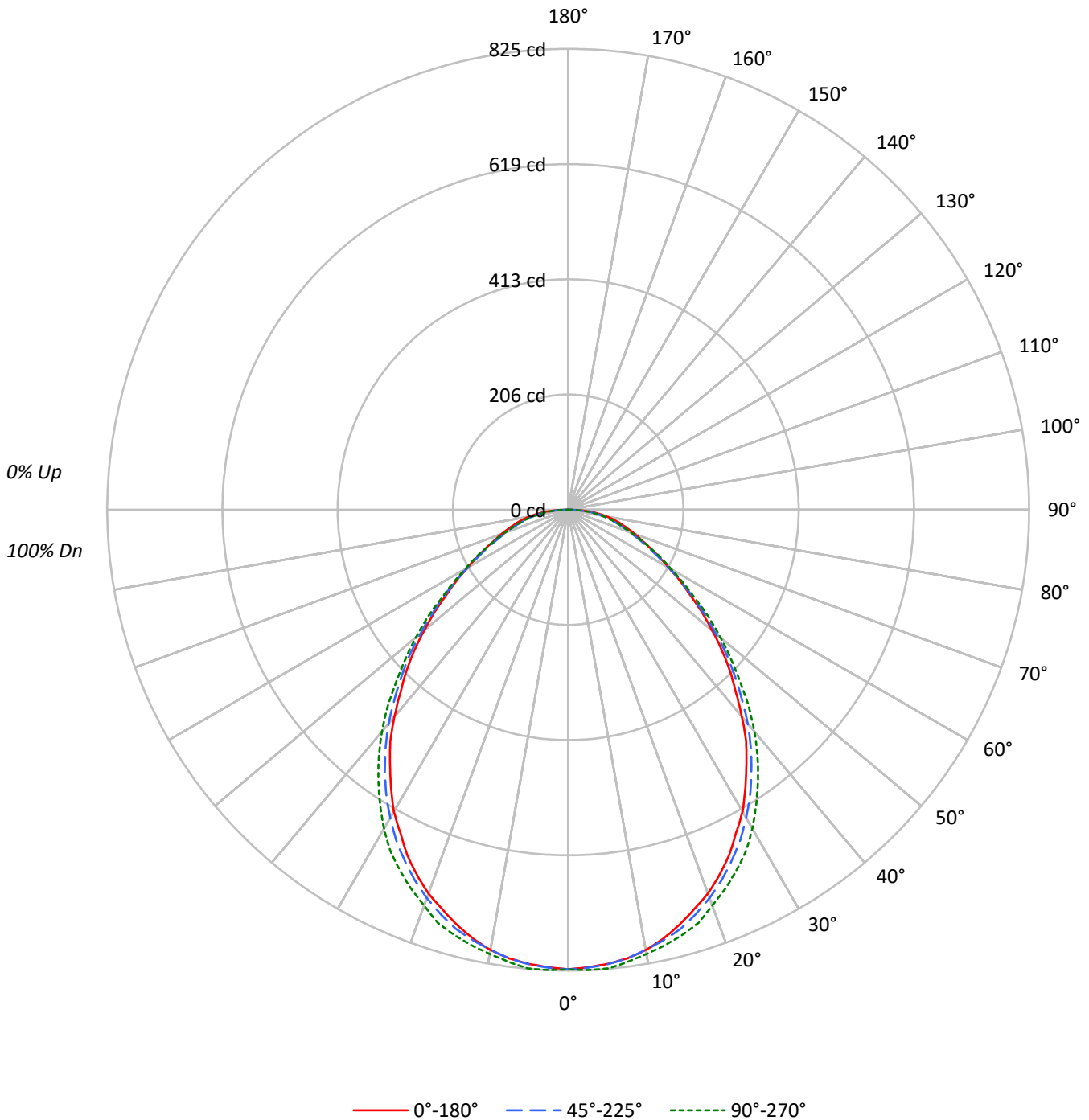
Input Watts (W): 15.624
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	110	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	87	85					85			
2	101	93	87	81	98	91	85	80	87	83	78	84	80	77	81	78	75	73					73			
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63					63			
4	85	74	66	59	83	73	65	59	70	63	58	68	62	57	66	61	57	55					55			
5	79	67	58	52	77	66	58	52	63	56	51	62	55	51	60	54	50	48					48			
6	73	60	52	46	71	59	51	46	58	51	45	56	50	45	55	49	45	43					43			
7	68	55	47	41	66	54	46	41	53	46	41	51	45	40	50	44	40	38					38			
8	63	51	42	37	62	50	42	37	49	42	37	47	41	36	46	40	36	34					34			
9	59	47	39	33	58	46	39	33	45	38	33	44	38	33	43	37	33	31					31			
10	56	43	36	31	55	43	35	30	42	35	30	41	35	30	40	34	30	28					28			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2214	2214	2214
5°	2204	2206	2227
10°	2187	2186	2207
15°	2143	2164	2196
20°	2094	2118	2159
25°	2025	2057	2115
30°	1939	1979	2048
35°	1826	1878	1945
40°	1699	1757	1821
45°	1560	1605	1655
50°	1407	1442	1488
55°	1248	1278	1300
60°	1119	1121	1144
65°	1031	996	1031
70°	995	922	949
75°	1013	904	921
80°	1091	947	947
85°	1210	1003	988



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.6	4.2
10°-20°	218.9	11.9
20°-30°	319.5	17.4
30°-40°	357.7	19.5
40°-50°	325.5	17.7
50°-60°	245.0	13.3
60°-70°	159.9	8.7
70°-80°	95.9	5.2
80°-90°	36.0	2.0
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°	616.0	33.6
0°-40°	973.7	53.0
0°-60°	1544.2	84.1
0°-90°	1836.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1836.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	823	823	823	823	823	
5°	816	815	817	820	824	77
15°	769	770	777	783	788	217
25°	682	684	693	706	712	313
35°	556	561	572	585	592	347
45°	410	414	422	431	435	316
55°	266	270	272	276	277	240
65°	162	160	156	159	162	162
75°	97	94	87	87	89	103
85°	39	38	32	31	32	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	822.8	822.8	822.8	822.8	822.8
2.5°	819.8	819.4	820.6	822.8	824.9
5°	816.0	814.7	816.8	819.8	824.4
7.5°	810.1	810.1	810.1	815.6	816.4
10°	800.4	801.2	800.0	805.5	807.6
12.5°	786.5	786.9	789.4	794.9	798.7
15°	769.2	770.0	776.8	783.1	788.2
17.5°	749.8	752.7	759.1	769.2	775.5
20°	731.2	734.6	739.7	750.6	754.0
22.5°	707.6	711.4	717.7	727.4	734.6
25°	681.9	684.0	692.9	705.5	712.3
27.5°	651.1	655.8	666.7	679.8	689.1
30°	624.1	626.7	636.8	652.0	659.1
32.5°	590.0	597.6	606.0	619.5	626.2
35°	555.8	560.9	571.8	585.3	592.1
37.5°	522.9	525.9	536.8	548.2	556.7
40°	483.7	489.2	500.1	512.4	518.3
42.5°	444.5	452.5	459.7	471.9	478.2
45°	409.9	414.1	421.7	430.6	434.8
47.5°	373.6	375.7	384.6	390.1	394.7
50°	336.1	338.6	344.5	350.0	355.5
52.5°	301.5	303.6	307.4	312.5	318.0
55°	266.1	269.9	272.4	276.2	277.1
57.5°	237.4	237.0	238.7	241.6	244.6
60°	207.9	208.7	208.3	211.3	212.5
62.5°	183.4	183.0	180.5	184.7	188.1
65°	161.9	160.2	156.5	159.0	161.9
67.5°	142.1	141.3	134.9	137.1	139.6
70°	126.5	123.6	117.2	118.5	120.6
72.5°	111.3	108.0	101.6	102.1	103.3
75°	97.4	94.0	86.9	87.3	88.6
77.5°	84.3	80.1	73.8	73.0	73.8
80°	70.4	66.6	61.1	58.6	61.1
82.5°	56.1	54.0	47.7	45.1	46.0
85°	39.2	38.0	32.5	30.8	32.0
87.5°	18.1	19.4	16.4	15.2	15.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)