

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: P291828

Luminaire Tested: **22GR-LD5-43-F1-UNV-L82765-W2A1-U-5500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P291828  
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-LD5-43-F1-UNV-L82765-W2A1-U-5500K  
Description: GRLED 2x2 TUNABLE WHITE TROFFER  
WITH F1 LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 5500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4527.0 lumens  
Efficiency: N/A  
Efficacy: 125.1 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

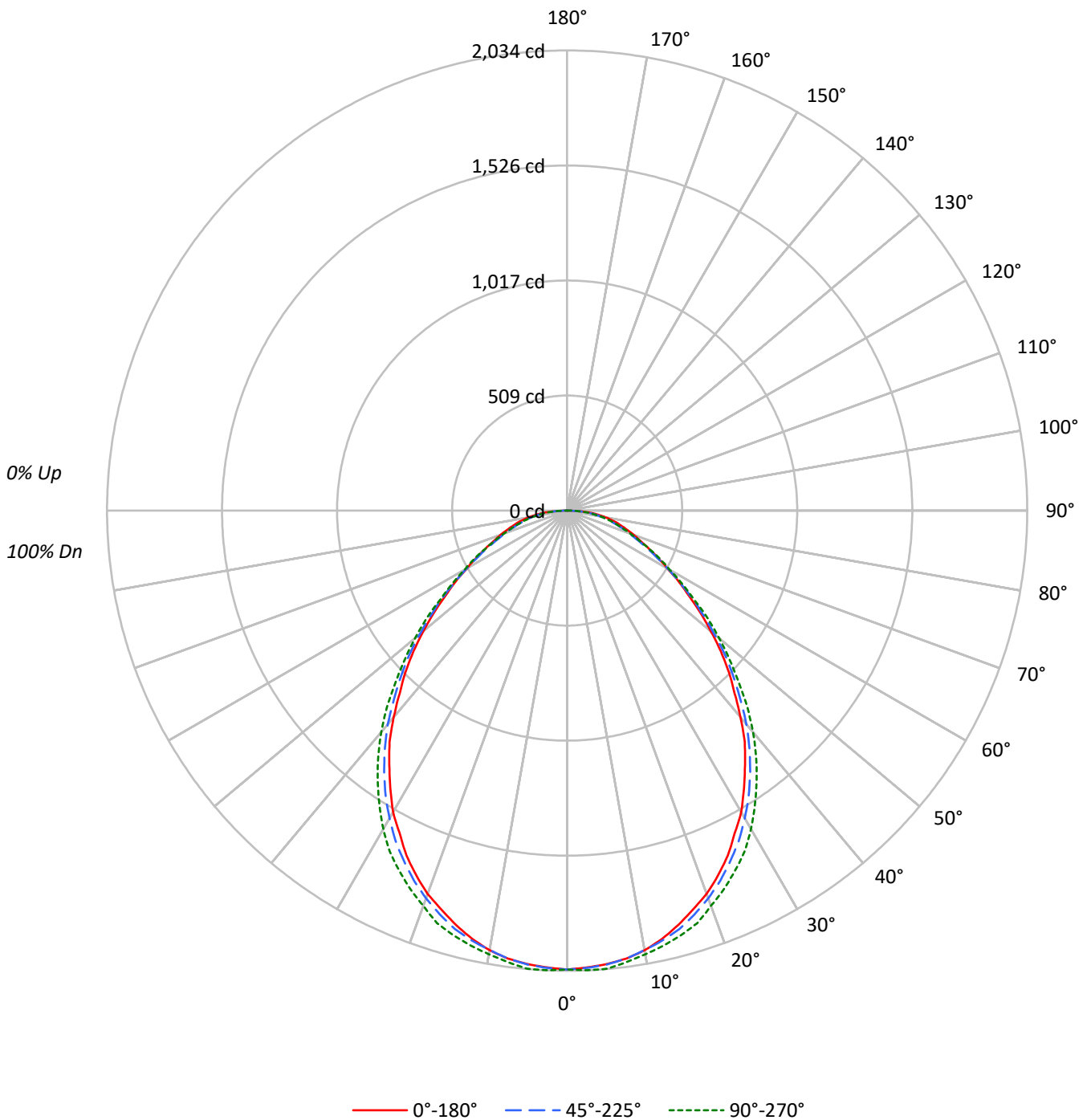
Input Watts (W): 36.177  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	5459	5459	5459
5°	5435	5441	5491
10°	5393	5390	5441
15°	5284	5336	5414
20°	5163	5223	5324
25°	4992	5073	5214
30°	4782	4879	5050
35°	4502	4632	4796
40°	4189	4332	4489
45°	3846	3957	4080
50°	3469	3556	3669
55°	3078	3151	3205
60°	2759	2765	2821
65°	2543	2457	2543
70°	2454	2275	2340
75°	2497	2227	2271
80°	2690	2337	2337
85°	2986	2473	2439



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	191.4	4.2
10°-20°	539.8	11.9
20°-30°	787.8	17.4
30°-40°	882.0	19.5
40°-50°	802.7	17.7
50°-60°	604.1	13.3
60°-70°	394.2	8.7
70°-80°	236.5	5.2
80°-90°	88.7	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°	1518.9	33.6
0°-40°	2400.8	53.0
0°-60°	3807.6	84.1
0°-90°	4527.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4527.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2029	2029	2029	2029	2029	
5°	2012	2009	2014	2021	2033	191
15°	1897	1899	1915	1931	1943	534
25°	1681	1687	1708	1740	1756	772
35°	1370	1383	1410	1443	1460	857
45°	1011	1021	1040	1062	1072	778
55°	656	666	672	681	683	593
65°	399	395	386	392	399	399
75°	240	232	214	215	218	255
85°	97	94	80	76	79	100
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2028.6	2028.6	2028.6	2028.6	2028.6
2.5°	2021.4	2020.3	2023.4	2028.6	2033.8
5°	2012.0	2008.9	2014.1	2021.4	2032.8
7.5°	1997.5	1997.5	1997.5	2011.0	2013.0
10°	1973.5	1975.6	1972.5	1986.0	1991.2
12.5°	1939.2	1940.3	1946.5	1960.0	1969.4
15°	1896.6	1898.7	1915.3	1930.9	1943.4
17.5°	1848.8	1856.0	1871.6	1896.6	1912.2
20°	1803.0	1811.3	1823.8	1850.8	1859.2
22.5°	1744.8	1754.1	1769.7	1793.7	1811.3
25°	1681.4	1686.6	1708.4	1739.6	1756.2
27.5°	1605.4	1616.9	1643.9	1676.2	1699.0
30°	1538.9	1545.1	1570.1	1607.5	1625.2
32.5°	1454.7	1473.4	1494.2	1527.5	1544.1
35°	1370.5	1382.9	1410.0	1443.2	1459.9
37.5°	1289.3	1296.6	1323.7	1351.7	1372.5
40°	1192.6	1206.2	1233.2	1263.4	1277.9
42.5°	1095.9	1115.7	1133.4	1163.5	1179.1
45°	1010.7	1021.1	1039.8	1061.6	1072.0
47.5°	921.3	926.5	948.3	961.8	973.3
50°	828.7	835.0	849.5	863.0	876.5
52.5°	743.5	748.7	758.0	770.5	784.0
55°	656.1	665.5	671.7	681.1	683.1
57.5°	585.4	584.4	588.5	595.8	603.1
60°	512.6	514.7	513.7	520.9	524.1
62.5°	452.3	451.3	445.0	455.4	463.8
65°	399.3	395.1	385.8	392.0	399.3
67.5°	350.4	348.3	332.7	337.9	344.2
70°	311.9	304.7	289.1	292.2	297.4
72.5°	274.5	266.2	250.6	251.6	254.8
75°	240.2	231.9	214.2	215.2	218.4
77.5°	208.0	197.6	182.0	179.9	182.0
80°	173.6	164.3	150.8	144.5	150.8
82.5°	138.3	133.1	117.5	111.3	113.3
85°	96.7	93.6	80.1	75.9	79.0
87.5°	44.7	47.8	40.6	37.4	38.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)