

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: P291439

Luminaire Tested: **14GR-LD5-20-A19/156-UNV-L93050-W2A1-U-3000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P291439
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33288)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14GR-LD5-20-A19/156-UNV-L93050-W2A1-U-3000K
Description: GRLED 1x4 TUNABLE WHITE TROFFER
WITH A19/156 LENS
Light Source: (168) 90 CRI LEDS TUNED TO 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1559.0 lumens
Efficiency: N/A
Efficacy: 98.0 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.23 / 1.18
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

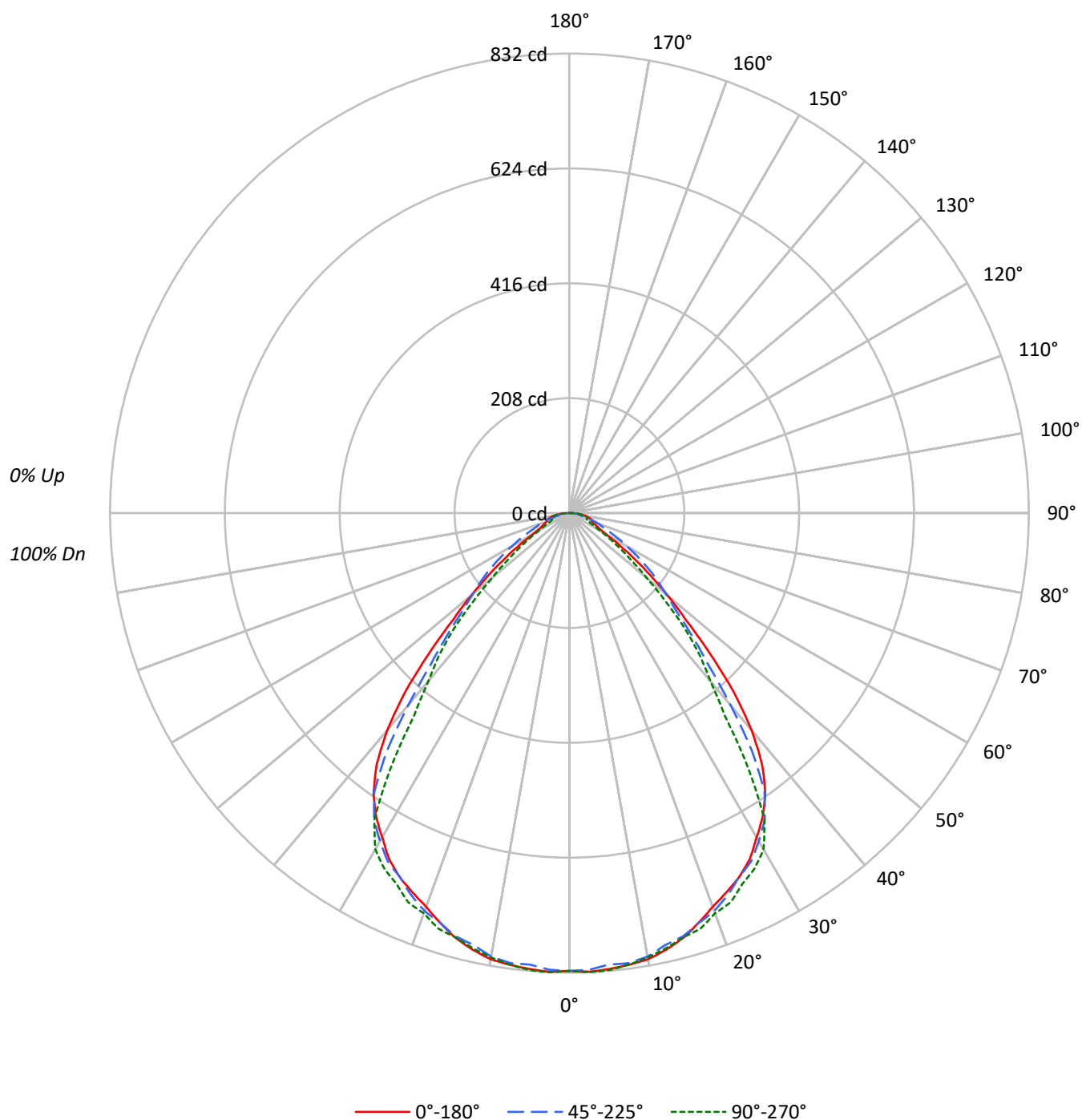
Input Watts (W): 15.903
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	111	107	104	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88		
2	103	96	90	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77		
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68		
4	89	79	71	65	87	77	70	65	75	69	64	73	68	63	71	66	63	61		
5	83	71	64	58	81	70	63	58	68	62	57	67	61	57	65	60	56	54		
6	77	65	58	52	75	64	57	52	63	56	51	61	55	51	60	55	51	49		
7	72	60	52	47	70	59	52	47	58	51	46	56	51	46	55	50	46	44		
8	67	55	48	43	66	55	47	42	53	47	42	52	46	42	51	46	42	40		
9	63	51	44	39	62	51	44	39	50	43	39	49	43	38	48	42	38	37		
10	60	48	40	36	58	47	40	36	46	40	35	45	39	35	44	39	35	34		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2231	2231	2231
5°	2239	2217	2243
10°	2242	2228	2232
15°	2219	2211	2216
20°	2173	2196	2208
25°	2159	2158	2200
30°	2107	2133	2184
35°	2032	2024	1859
40°	1804	1592	1394
45°	1369	1191	1127
50°	971	953	765
55°	665	814	526
60°	411	649	351
65°	339	500	255
70°	337	435	261
75°	404	312	348
80°	465	288	437
85°	442	506	497



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.7	5.0
10°-20°	224.5	14.4
20°-30°	337.6	21.7
30°-40°	368.1	23.6
40°-50°	257.7	16.5
50°-60°	145.9	9.4
60°-70°	79.8	5.1
70°-80°	48.4	3.1
80°-90°	18.4	1.2
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°	640.8	41.1
0°-40°	1008.8	64.7
0°-60°	1412.5	90.6
0°-90°	1559.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1559.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	829	829	829	829	829	
5°	829	827	821	830	830	79
15°	796	794	794	805	796	224
25°	727	729	727	744	741	334
35°	618	616	616	585	566	381
45°	360	375	313	309	296	279
55°	142	170	173	172	112	130
65°	53	87	78	99	40	55
75°	39	56	30	59	34	40
85°	14	23	16	20	16	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	829.0	829.0	829.0	829.0	829.0
2.5°	831.2	830.1	827.6	832.6	832.2
5°	828.7	827.2	820.8	830.4	830.4
7.5°	825.1	821.5	821.9	827.2	824.7
10°	820.5	814.4	815.5	816.9	816.9
12.5°	809.7	804.0	801.2	805.8	807.2
15°	796.5	794.4	793.7	805.1	795.5
17.5°	778.0	782.6	778.3	787.6	789.0
20°	758.7	767.6	766.9	773.3	771.2
22.5°	743.0	748.7	748.7	756.6	763.0
25°	727.3	728.7	726.9	743.7	740.9
27.5°	707.0	705.9	711.6	720.2	725.9
30°	678.1	678.4	686.3	697.7	703.0
32.5°	651.6	648.4	658.1	663.1	657.4
35°	618.5	615.6	616.0	584.6	566.0
37.5°	573.1	575.6	542.8	485.3	461.1
40°	513.5	518.5	453.2	410.4	396.8
42.5°	441.5	442.9	371.5	357.6	348.7
45°	359.7	375.4	313.0	309.1	296.2
47.5°	285.1	314.4	262.3	264.8	234.1
50°	232.0	261.2	227.7	228.8	182.7
52.5°	183.4	212.0	200.9	197.7	143.5
55°	141.7	169.5	173.4	172.0	112.1
57.5°	104.2	134.2	145.6	151.0	86.4
60°	76.4	109.6	120.6	131.3	65.3
62.5°	60.7	94.9	98.9	114.6	50.7
65°	53.2	87.4	78.5	99.2	40.0
67.5°	47.5	83.2	63.9	87.8	35.0
70°	42.8	74.9	55.3	78.5	33.2
72.5°	42.8	65.7	43.5	69.6	33.5
75°	38.9	56.0	30.0	58.9	33.5
77.5°	34.6	47.8	22.5	47.8	31.4
80°	30.0	37.5	18.6	36.8	28.2
82.5°	22.1	28.2	16.1	27.5	22.8
85°	14.3	23.2	16.4	20.0	16.1
87.5°	6.8	11.8	10.3	10.0	8.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)