

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: NEO-RAY

Report Number: P231651

Luminaire Tested: **S121-DR-LO-27-X-0048-1-U-DD-1-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231651
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33906)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S121-DR-LO-27-X-0048-1-U-DD-1-W
Description: DEFINE 1 LED LINEAR DIRECT RECESSED LED LUMINAIRE WITH FLUSH LENS.
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

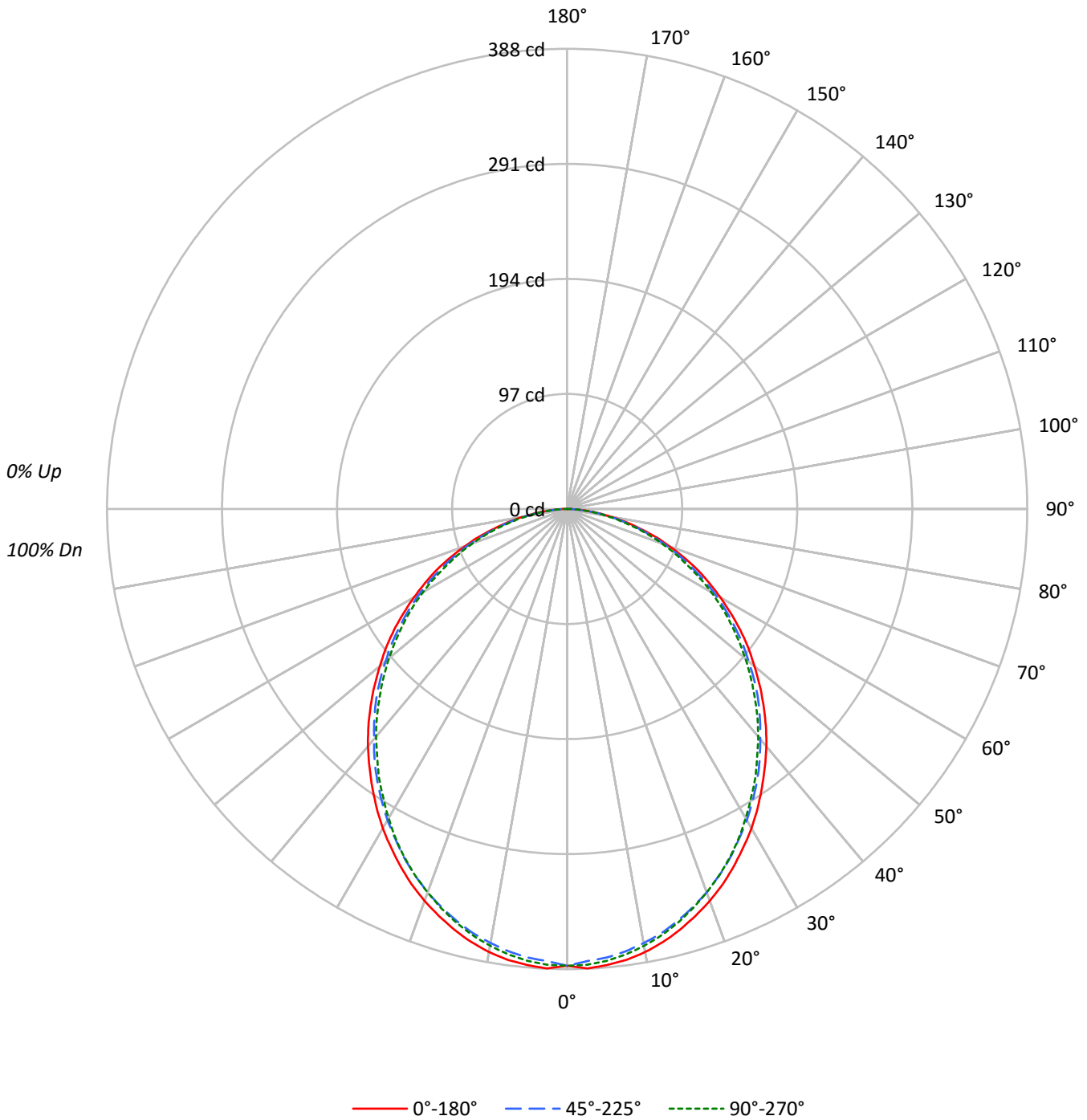
Lumens per Lamp: N/A
Luminaire Lumens: 991.5 lumens
Efficiency: N/A
Efficacy: 72.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3
Luminous Opening: Rectangular (W 0.1' x L: 3.92' x H: 0')
CIE Type: Direct

Input Watts (W): 13.6
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



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	81	76	82	78	74	79	76	73	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51
5	77	64	55	48	74	63	54	48	61	53	48	59	52	47	57	51	47	44
6	71	58	49	42	69	57	48	42	55	47	42	53	46	41	52	46	41	39
7	66	52	44	38	64	51	43	37	50	43	37	48	42	37	47	41	37	35
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	33	31
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	28	52	40	33	27	39	32	27	38	32	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10766	10766	10766
5°	10833	10659	10735
10°	10768	10552	10617
15°	10631	10411	10449
20°	10461	10235	10235
25°	10254	10019	10007
30°	10040	9778	9720
35°	9775	9532	9440
40°	9540	9244	9149
45°	9256	9011	8833
50°	8960	8686	8529
55°	8691	8384	8208
60°	8342	8068	7845
65°	8011	7654	7389
70°	7488	7193	6940
75°	6848	6568	6319
80°	5973	5683	5474
85°	5004	4587	4459



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.3	3.7
10°-20°	102.2	10.3
20°-30°	150.5	15.2
30°-40°	175.4	17.7
40°-50°	176.0	17.8
50°-60°	154.5	15.6
60°-70°	115.0	11.6
70°-80°	64.4	6.5
80°-90°	17.1	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°	289.0	29.1
0°-40°	464.4	46.8
0°-60°	794.9	80.2
0°-90°	991.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	991.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	385	385	385	385	385	
5°	386	384	380	383	382	37
15°	367	364	360	362	361	104
25°	332	329	325	325	324	153
35°	286	283	279	278	277	179
45°	234	232	228	225	223	181
55°	178	176	172	170	168	159
65°	121	119	116	114	112	119
75°	63	62	61	58	58	68
85°	16	15	14	14	14	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	385.1	385.1	385.1	385.1	385.1
2.5°	387.8	385.6	381.6	385.6	384.7
5°	386.0	383.8	379.8	383.4	382.5
7.5°	383.4	380.7	376.2	379.8	378.9
10°	379.3	375.8	371.7	374.4	374.0
12.5°	374.0	370.8	366.4	369.1	368.2
15°	367.3	364.1	359.7	362.4	361.0
17.5°	359.7	356.6	352.1	354.3	353.0
20°	351.6	348.1	344.0	345.8	344.0
22.5°	342.7	339.1	334.7	336.0	334.7
25°	332.4	328.8	324.8	325.3	324.4
27.5°	321.7	318.6	313.7	314.6	313.2
30°	311.0	307.8	302.9	302.5	301.1
32.5°	298.9	295.8	291.3	290.4	288.6
35°	286.4	283.3	279.3	277.9	276.6
37.5°	273.9	271.2	266.7	265.0	263.2
40°	261.4	258.3	253.3	251.6	250.7
42.5°	248.0	244.8	240.8	238.1	237.3
45°	234.1	231.9	227.9	224.7	223.4
47.5°	220.3	218.0	214.0	210.9	210.0
50°	206.0	204.2	199.7	197.0	196.1
52.5°	192.6	190.8	186.3	183.6	182.3
55°	178.3	176.0	172.0	169.8	168.4
57.5°	163.5	162.2	158.2	155.9	154.6
60°	149.2	147.4	144.3	141.2	140.3
62.5°	134.9	133.6	130.0	127.3	126.0
65°	121.1	118.9	115.7	113.5	111.7
67.5°	106.3	105.0	101.9	99.6	98.3
70°	91.6	90.3	88.0	85.8	84.9
72.5°	78.2	76.0	73.7	72.4	71.5
75°	63.4	62.1	60.8	58.5	58.5
77.5°	50.5	48.7	47.8	46.5	45.6
80°	37.1	36.6	35.3	34.9	34.0
82.5°	26.4	25.5	24.1	23.7	23.2
85°	15.6	15.2	14.3	14.3	13.9
87.5°	7.1	6.7	5.8	5.4	5.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)