

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: P231652

Luminaire Tested: **S121-DR-LO-30-X-0048-1-U-DD-1-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231652
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-30-X-0048-1-U-DD-1-W
Description: DEFINE 1 LED LINEAR DIRECT RECESSED LED LUMINAIRE WITH FLUSH LENS.
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1235.2 lumens
Efficiency: N/A
Efficacy: 90.8 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

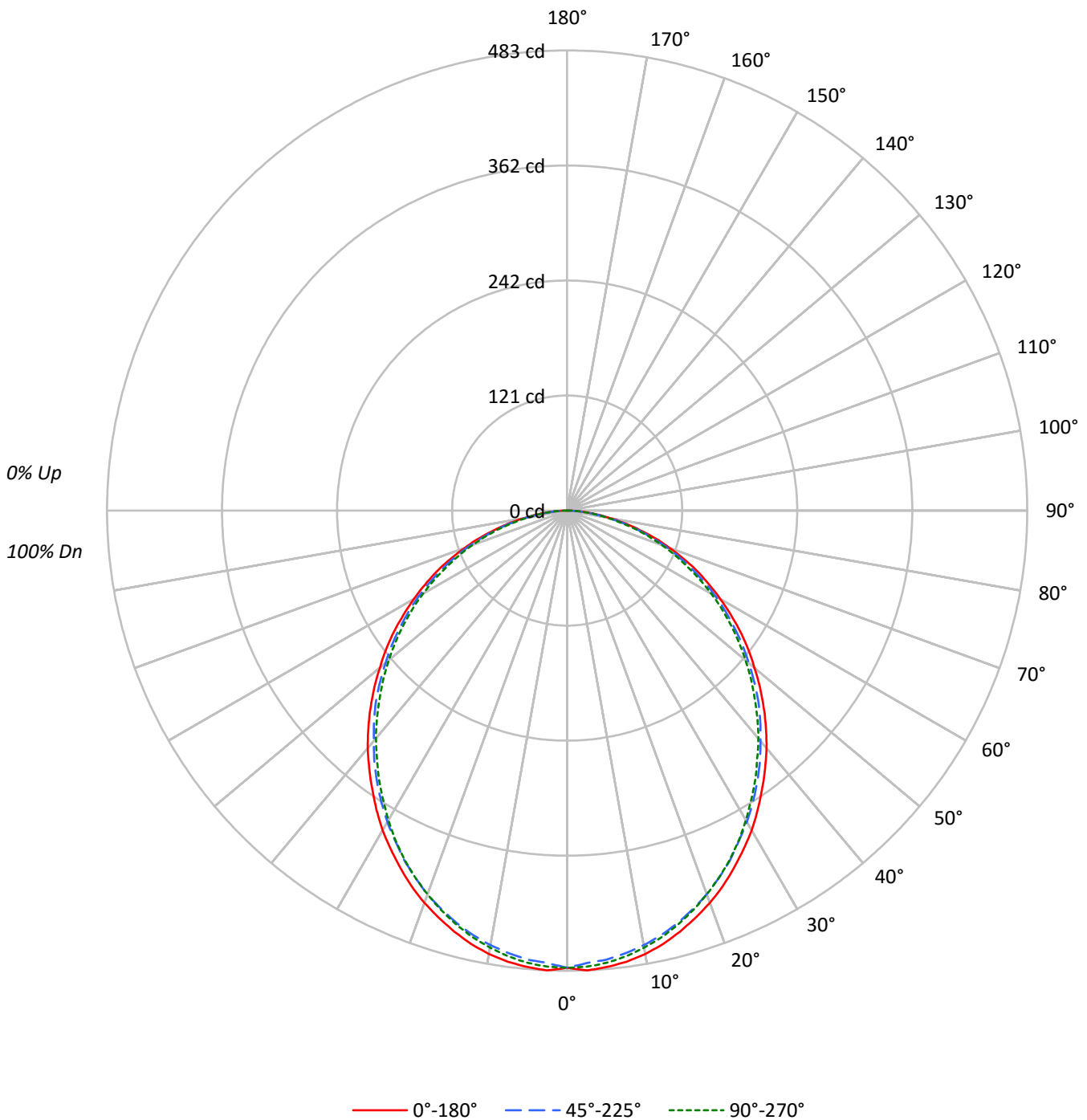
Input Watts (W): 13.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	13414	13414	13414
5°	13496	13277	13373
10°	13416	13147	13226
15°	13242	12970	13016
20°	13034	12752	12752
25°	12774	12484	12465
30°	12506	12183	12112
35°	12177	11874	11758
40°	11883	11518	11398
45°	11533	11225	11003
50°	11161	10821	10630
55°	10826	10445	10226
60°	10395	10053	9774
65°	9976	9539	9208
70°	9327	8967	8648
75°	8534	8177	7875
80°	7438	7084	6810
85°	6255	5710	5549



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.2	3.7
10°-20°	127.3	10.3
20°-30°	187.5	15.2
30°-40°	218.6	17.7
40°-50°	219.3	17.8
50°-60°	192.5	15.6
60°-70°	143.3	11.6
70°-80°	80.3	6.5
80°-90°	21.3	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°	360.0	29.1
0°-40°	578.5	46.8
0°-60°	990.3	80.2
0°-90°	1235.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1235.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	480	480	480	480	480	
5°	481	478	473	478	476	46
15°	458	454	448	451	450	129
25°	414	410	405	405	404	191
35°	357	353	348	346	344	223
45°	292	289	284	280	278	225
55°	222	219	214	212	210	198
65°	151	148	144	141	139	149
75°	79	77	76	73	73	84
85°	20	19	18	18	17	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	479.8	479.8	479.8	479.8	479.8
2.5°	483.1	480.4	475.3	480.4	479.2
5°	480.9	478.1	473.1	477.6	476.5
7.5°	477.6	474.2	468.7	473.1	472.0
10°	472.6	468.1	463.1	466.4	465.9
12.5°	465.9	462.0	456.4	459.8	458.6
15°	457.5	453.6	448.1	451.4	449.7
17.5°	448.1	444.2	438.6	441.4	439.7
20°	438.1	433.6	428.6	430.8	428.6
22.5°	426.9	422.5	416.9	418.6	416.9
25°	414.1	409.7	404.7	405.2	404.1
27.5°	400.8	396.9	390.7	391.9	390.2
30°	387.4	383.5	377.4	376.8	375.2
32.5°	372.4	368.5	362.9	361.8	359.6
35°	356.8	352.9	347.9	346.2	344.5
37.5°	341.2	337.9	332.3	330.1	327.8
40°	325.6	321.7	315.6	313.4	312.3
42.5°	308.9	305.0	300.0	296.7	295.6
45°	291.7	288.9	283.9	280.0	278.3
47.5°	274.4	271.6	266.6	262.7	261.6
50°	256.6	254.4	248.8	245.5	244.4
52.5°	239.9	237.7	232.1	228.8	227.1
55°	222.1	219.3	214.3	211.5	209.8
57.5°	203.7	202.0	197.0	194.3	192.6
60°	185.9	183.7	179.8	175.9	174.8
62.5°	168.1	166.4	162.0	158.6	157.0
65°	150.8	148.1	144.2	141.4	139.2
67.5°	132.5	130.8	126.9	124.1	122.5
70°	114.1	112.4	109.7	106.9	105.8
72.5°	97.4	94.6	91.8	90.2	89.1
75°	79.0	77.4	75.7	72.9	72.9
77.5°	62.9	60.7	59.6	57.9	56.8
80°	46.2	45.6	44.0	43.4	42.3
82.5°	32.8	31.7	30.1	29.5	28.9
85°	19.5	18.9	17.8	17.8	17.3
87.5°	8.9	8.3	7.2	6.7	6.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)