

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: P231656

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231656
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-1-30-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: 2508.2 lumens
Efficiency: N/A
Efficacy: 89.9 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

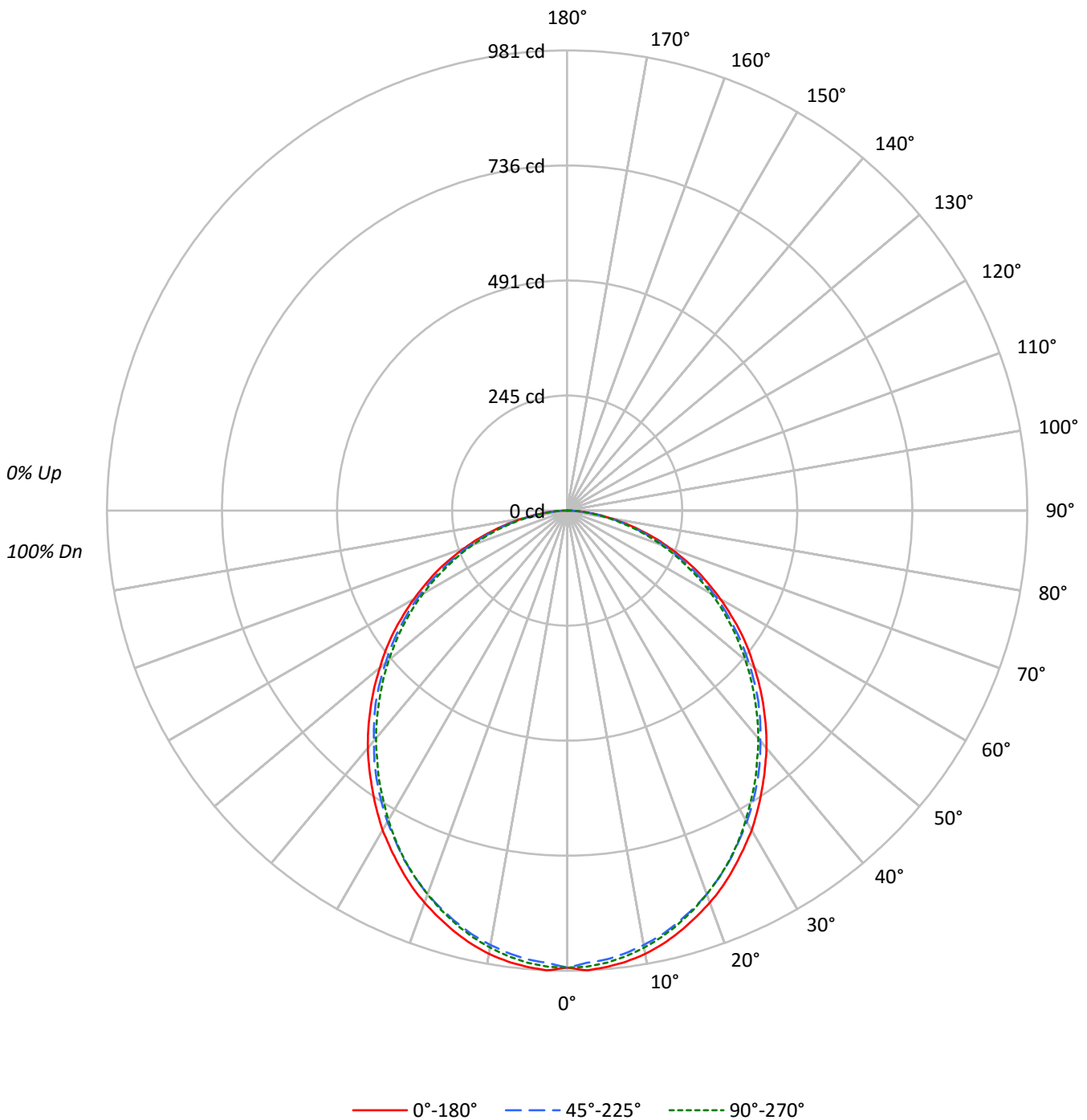
Input Watts (W): 27.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P231656

CATALOG NUMBER: S121-DR-1-30-X-0048-1-U-DD-1-W

Luminous Intensity Polar Plot





TEST NUMBER: P231656

CATALOG NUMBER: S121-DR-1-30-X-0048-1-U-DD-1-W

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°	27239	27239	27239
5°	27405	26961	27152
10°	27242	26697	26856
15°	26892	26333	26431
20°	26464	25893	25893
25°	25940	25347	25314
30°	25393	24738	24593
35°	24727	24109	23877
40°	24131	23386	23142
45°	23414	22790	22343
50°	22660	21973	21582
55°	21983	21208	20769
60°	21108	20414	19844
65°	20263	19363	18695
70°	18940	18204	17550
75°	17337	16603	15998
80°	15102	14377	13830
85°	12703	11612	11227



TEST NUMBER: P231656

CATALOG NUMBER: S121-DR-1-30-X-0048-1-U-DD-1-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.8	3.7
10°-20°	258.4	10.3
20°-30°	380.8	15.2
30°-40°	443.8	17.7
40°-50°	445.3	17.8
50°-60°	390.9	15.6
60°-70°	290.9	11.6
70°-80°	163.0	6.5
80°-90°	43.3	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°	730.9	29.1
0°-40°	1174.7	46.8
0°-60°	2010.9	80.2
0°-90°	2508.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2508.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	974	974	974	974	974	
5°	976	971	961	970	968	93
15°	929	921	910	917	913	262
25°	841	832	822	823	821	387
35°	724	717	706	703	700	453
45°	592	587	576	568	565	457
55°	451	445	435	430	426	403
65°	306	301	293	287	283	302
75°	160	157	154	148	148	171
85°	40	38	36	36	35	47
90°	0	0	0	0	0	



TEST NUMBER: P231656

CATALOG NUMBER: S121-DR-1-30-X-0048-1-U-DD-1-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	974.3	974.3	974.3	974.3	974.3
2.5°	981.1	975.4	965.2	975.4	973.1
5°	976.5	970.9	960.7	969.7	967.5
7.5°	969.7	963.0	951.7	960.7	958.4
10°	959.6	950.5	940.4	947.1	946.0
12.5°	946.0	938.1	926.8	933.6	931.3
15°	929.1	921.1	909.8	916.6	913.2
17.5°	909.8	901.9	890.6	896.3	892.9
20°	889.5	880.5	870.3	874.8	870.3
22.5°	866.9	857.9	846.6	849.9	846.6
25°	840.9	831.9	821.7	822.8	820.6
27.5°	813.8	805.9	793.4	795.7	792.3
30°	786.6	778.7	766.3	765.2	761.8
32.5°	756.1	748.2	736.9	734.7	730.1
35°	724.5	716.6	706.4	703.0	699.6
37.5°	692.8	686.1	674.8	670.2	665.7
40°	661.2	653.3	640.8	636.3	634.1
42.5°	627.3	619.4	609.2	602.4	600.2
45°	592.2	586.6	576.4	568.5	565.1
47.5°	557.2	551.6	541.4	533.5	531.2
50°	521.0	516.5	505.2	498.4	496.2
52.5°	487.1	482.6	471.3	464.5	461.1
55°	451.0	445.3	435.1	429.5	426.1
57.5°	413.7	410.3	400.1	394.5	391.1
60°	377.5	373.0	365.1	357.2	354.9
62.5°	341.3	337.9	328.9	322.1	318.7
65°	306.3	300.6	292.7	287.1	282.6
67.5°	269.0	265.6	257.7	252.0	248.7
70°	231.7	228.3	222.7	217.0	214.7
72.5°	197.8	192.1	186.5	183.1	180.8
75°	160.5	157.1	153.7	148.1	148.1
77.5°	127.7	123.2	120.9	117.5	115.3
80°	93.8	92.7	89.3	88.2	85.9
82.5°	66.7	64.4	61.0	59.9	58.8
85°	39.6	38.4	36.2	36.2	35.0
87.5°	18.1	17.0	14.7	13.6	13.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)