

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: P231655

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231655
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-1-27-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

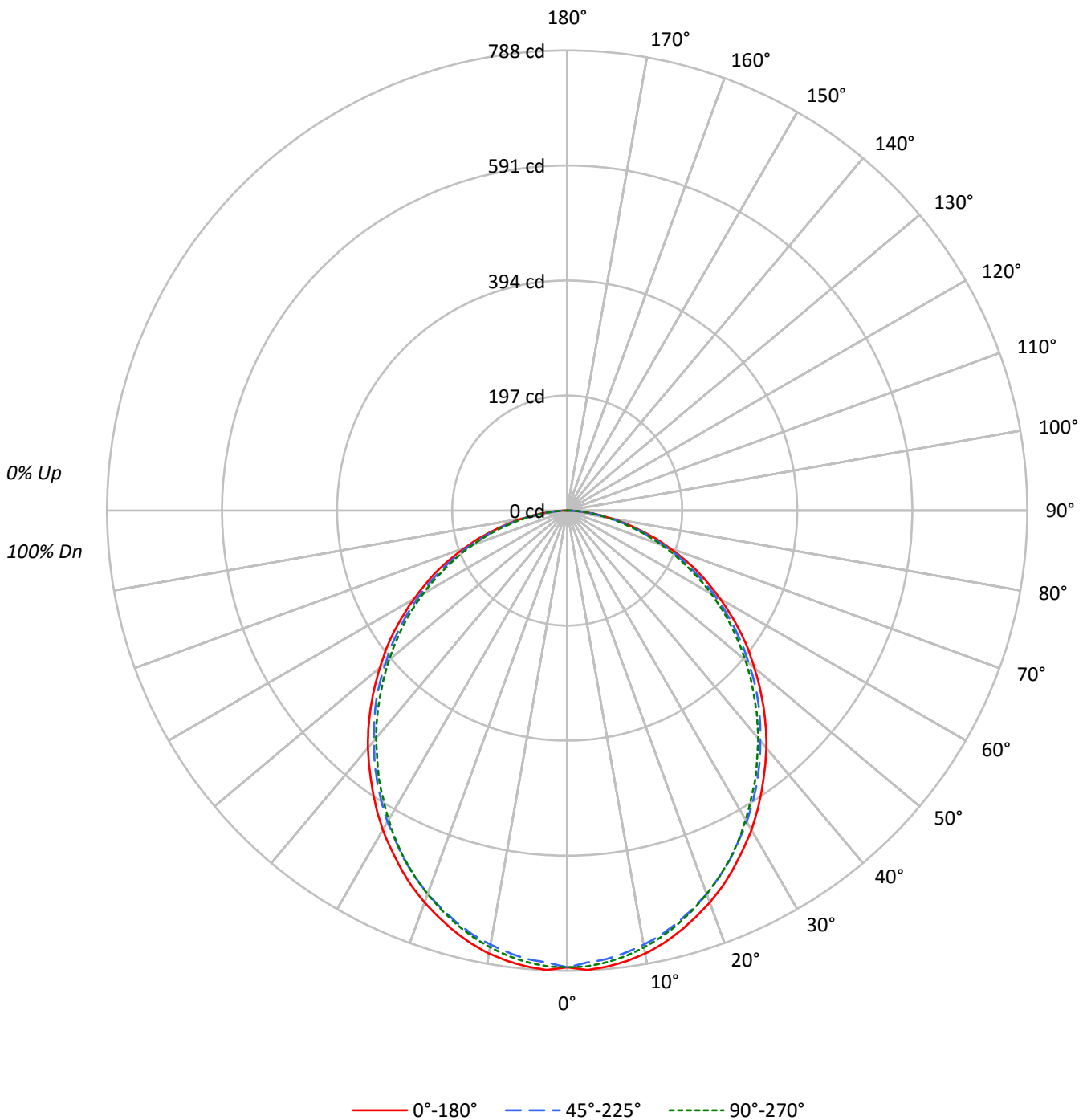
Lumens per Lamp: N/A
Luminaire Lumens: 2013.4 lumens
Efficiency: N/A
Efficacy: 72.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3
Luminous Opening: Rectangular (W 0.1' x L: 3.92' x H: 0')
CIE Type: Direct

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



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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°	21865	21865	21865
5°	22000	21643	21795
10°	21868	21431	21558
15°	21586	21140	21219
20°	21243	20784	20784
25°	20822	20347	20319
30°	20386	19857	19741
35°	19850	19352	19167
40°	19372	18773	18576
45°	18796	18294	17934
50°	18194	17641	17324
55°	17645	17026	16670
60°	16942	16389	15930
65°	16267	15546	15003
70°	15204	14607	14092
75°	13913	13330	12843
80°	12123	11544	11109
85°	10201	9302	9014



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.7	3.7
10°-20°	207.4	10.3
20°-30°	305.6	15.2
30°-40°	356.2	17.7
40°-50°	357.4	17.8
50°-60°	313.8	15.6
60°-70°	233.6	11.6
70°-80°	130.9	6.5
80°-90°	34.8	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°	586.7	29.1
0°-40°	943.0	46.8
0°-60°	1614.2	80.2
0°-90°	2013.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2013.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	782	782	782	782	782	
5°	784	779	771	778	777	74
15°	746	739	730	736	733	210
25°	675	668	660	660	659	311
35°	582	575	567	564	562	364
45°	475	471	463	456	454	367
55°	362	358	349	345	342	323
65°	246	241	235	230	227	243
75°	129	126	123	119	119	137
85°	32	31	29	29	28	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	782.1	782.1	782.1	782.1	782.1
2.5°	787.5	783.0	774.8	783.0	781.2
5°	783.9	779.4	771.2	778.4	776.6
7.5°	778.4	773.0	763.9	771.2	769.4
10°	770.3	763.0	754.9	760.3	759.4
12.5°	759.4	753.0	744.0	749.4	747.6
15°	745.8	739.4	730.4	735.8	733.1
17.5°	730.4	724.0	714.9	719.5	716.8
20°	714.0	706.8	698.6	702.2	698.6
22.5°	695.9	688.6	679.6	682.3	679.6
25°	675.0	667.8	659.6	660.5	658.7
27.5°	653.2	646.9	636.9	638.7	636.0
30°	631.5	625.1	615.1	614.2	611.5
32.5°	607.0	600.6	591.5	589.7	586.1
35°	581.6	575.2	567.0	564.3	561.6
37.5°	556.2	550.7	541.6	538.0	534.4
40°	530.8	524.4	514.4	510.8	509.0
42.5°	503.5	497.2	489.0	483.6	481.8
45°	475.4	470.9	462.7	456.4	453.6
47.5°	447.3	442.8	434.6	428.2	426.4
50°	418.3	414.6	405.6	400.1	398.3
52.5°	391.0	387.4	378.3	372.9	370.2
55°	362.0	357.5	349.3	344.8	342.0
57.5°	332.1	329.3	321.2	316.6	313.9
60°	303.0	299.4	293.1	286.7	284.9
62.5°	274.0	271.3	264.0	258.6	255.9
65°	245.9	241.3	235.0	230.4	226.8
67.5°	215.9	213.2	206.9	202.3	199.6
70°	186.0	183.3	178.7	174.2	172.4
72.5°	158.8	154.2	149.7	147.0	145.2
75°	128.8	126.1	123.4	118.9	118.9
77.5°	102.5	98.9	97.1	94.4	92.5
80°	75.3	74.4	71.7	70.8	69.0
82.5°	53.5	51.7	49.0	48.1	47.2
85°	31.8	30.8	29.0	29.0	28.1
87.5°	14.5	13.6	11.8	10.9	10.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)