

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: P231714

Luminaire Tested: **S121-RDR-LO-40-X-0048-1-U-DD-1-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231714
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33908)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S121-RDR-LO-40-X-0048-1-U-DD-1-W
Description: DEFINE 1 LED LINEAR REGRESSED DIRECT RECESSED LED LUMINAIRE WITH FLUSH LENS.
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1076.2 lumens
Efficiency: N/A
Efficacy: 79.1 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 0.93 / 1.1
Luminous Opening: Rectangular (W 0.1' x L: 3.92' x H: 0')
CIE Type: Direct

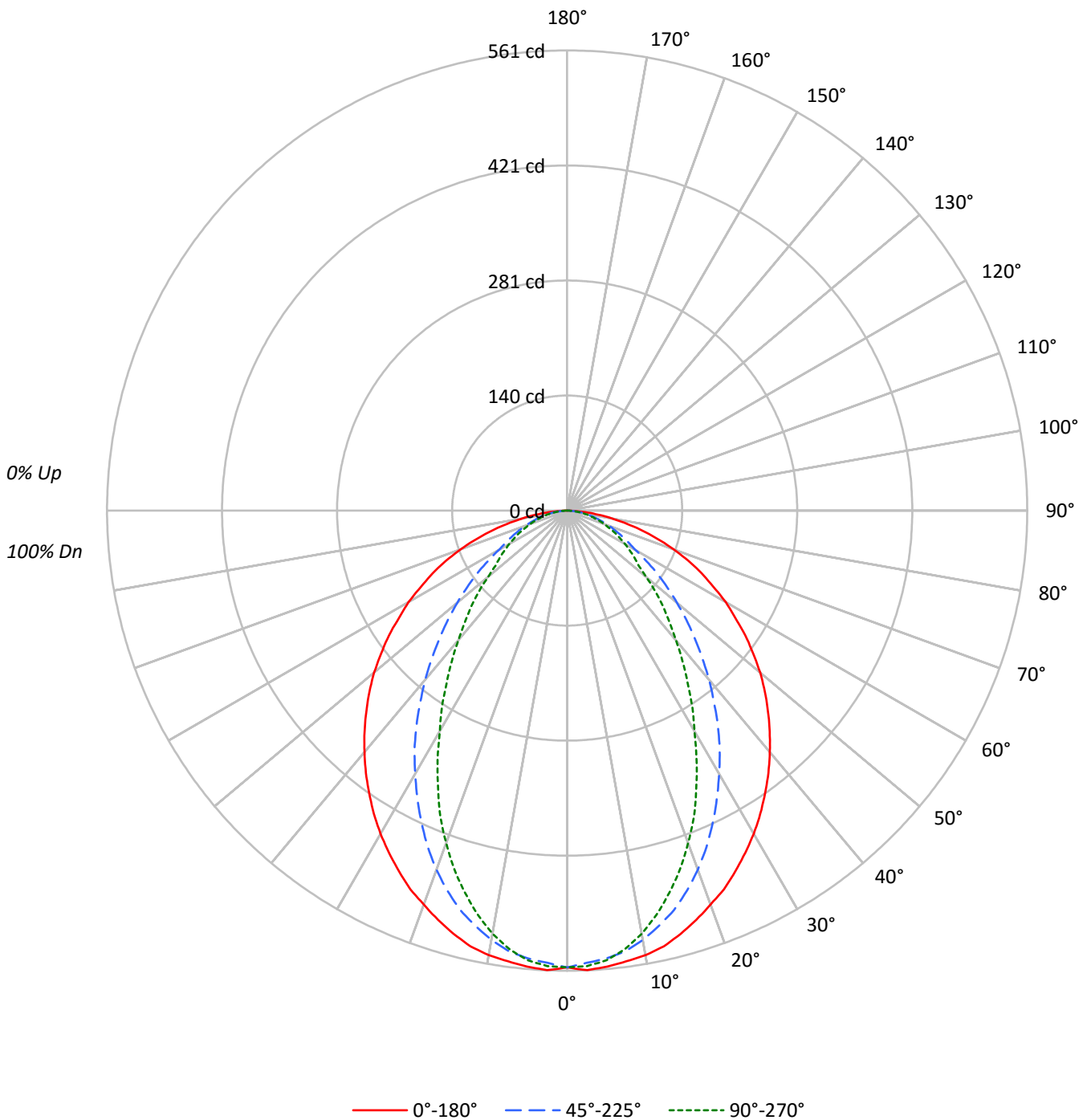
Input Watts (W): 13.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88	86
2	101	94	88	83	99	92	86	82	89	84	80	85	81	78	82	79	76	74
3	93	84	76	70	91	82	75	70	79	73	69	77	72	67	74	70	66	64
4	86	75	67	61	84	74	66	61	71	65	60	69	64	59	67	62	58	56
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44
7	69	57	48	43	67	56	48	42	54	47	42	53	47	42	52	46	42	40
8	65	52	44	39	63	51	44	38	50	43	38	49	43	38	48	42	38	36
9	61	48	40	35	59	47	40	35	46	40	35	45	39	35	44	39	35	33
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	41	36	32	30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	15569	15569	15569
5°	15660	15382	15444
10°	15622	15089	14870
15°	15465	14588	13948
20°	15206	13861	12829
25°	14967	12962	11497
30°	14685	11961	10020
35°	14358	10935	8730
40°	14025	9821	7525
45°	13692	8698	6540
50°	13357	7603	5467
55°	12926	6531	4894
60°	12486	5362	4535
65°	11967	4849	4234
70°	11264	4463	3924
75°	10305	4051	3575
80°	8968	3558	3284
85°	7089	3015	2823



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.2	4.8
10°-20°	142.3	13.2
20°-30°	195.4	18.2
30°-40°	205.7	19.1
40°-50°	183.3	17.0
50°-60°	140.8	13.1
60°-70°	94.3	8.8
70°-80°	49.3	4.6
80°-90°	13.0	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°	389.9	36.2
0°-40°	595.6	55.3
0°-60°	919.7	85.5
0°-90°	1076.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1076.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	557	557	557	557	557	
5°	558	555	548	552	550	53
15°	534	527	504	491	482	151
25°	485	465	420	388	373	223
35°	421	386	320	272	256	263
45°	346	297	220	177	165	267
55°	265	207	134	104	100	237
65°	181	118	73	66	64	179
75°	95	48	38	34	33	101
85°	22	10	9	9	9	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	556.9	556.9	556.9	556.9	556.9
2.5°	560.8	557.5	551.9	556.9	555.8
5°	558.0	554.7	548.1	551.9	550.3
7.5°	554.2	549.7	542.0	543.1	539.3
10°	550.3	544.2	531.5	528.8	523.8
12.5°	544.2	537.6	518.3	510.6	504.5
15°	534.3	527.1	504.0	491.3	481.9
17.5°	523.3	512.2	485.8	468.1	458.2
20°	511.1	497.9	465.9	443.3	431.2
22.5°	499.6	481.9	443.9	416.9	404.2
25°	485.2	464.8	420.2	388.2	372.7
27.5°	470.3	445.5	395.3	359.5	341.9
30°	454.9	426.2	370.5	329.2	310.4
32.5°	438.4	405.8	346.3	300.5	284.0
35°	420.7	386.0	320.4	272.4	255.8
37.5°	403.1	363.4	293.9	245.9	231.0
40°	384.3	341.9	269.1	221.1	206.2
42.5°	365.6	319.3	243.7	198.5	184.7
45°	346.3	297.2	220.0	177.0	165.4
47.5°	327.0	274.6	196.8	156.6	145.6
50°	307.1	252.0	174.8	137.3	125.7
52.5°	285.6	229.4	153.8	118.0	109.7
55°	265.2	206.8	134.0	103.7	100.4
57.5°	242.6	184.2	114.7	93.7	90.4
60°	223.3	161.6	95.9	84.4	81.1
62.5°	200.7	139.5	83.8	75.0	72.2
65°	180.9	118.5	73.3	65.6	64.0
67.5°	159.9	98.1	63.4	57.3	55.1
70°	137.8	78.8	54.6	49.1	48.0
72.5°	116.3	61.2	45.2	41.4	40.8
75°	95.4	48.5	37.5	34.2	33.1
77.5°	75.0	36.9	29.8	27.6	27.0
80°	55.7	27.0	22.1	21.0	20.4
82.5°	38.0	18.2	15.4	14.3	14.3
85°	22.1	10.5	9.4	8.8	8.8
87.5°	8.3	4.4	3.9	3.9	3.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)