

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1055191

Luminaire Tested: S122R3DR-S290D940-X4F0-XX-UDD-FLL-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055191
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-2)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122R3DR-S290D940-X4F0-XX-UDD-FLL-B
Description: DEFINE 2, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

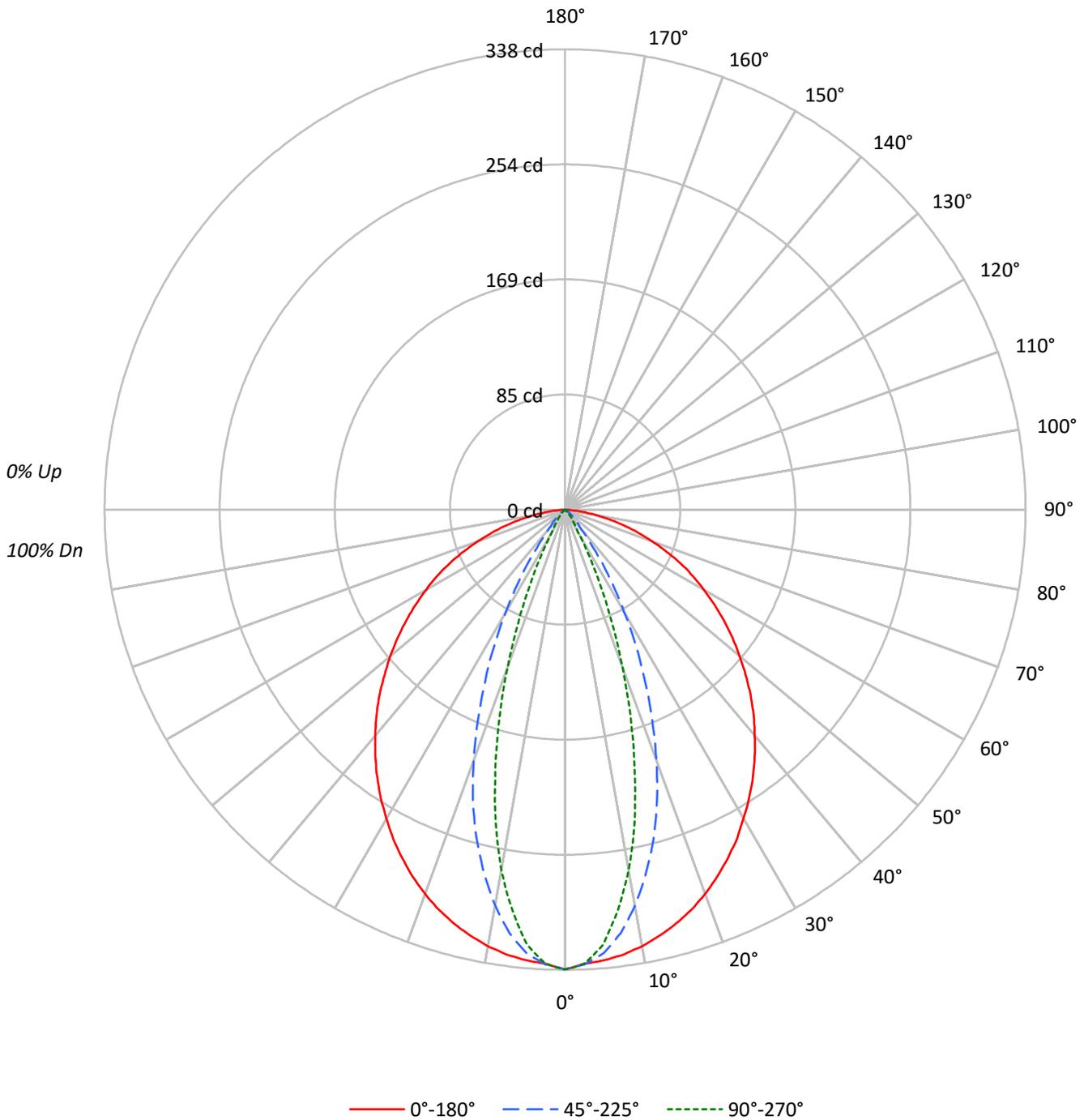
Lumens per Lamp: N/A
Luminaire Lumens: 307.2 lumens
Efficiency: N/A
Efficacy: 24.4 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.56 / 0.7
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 12.6
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: 24 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	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	112	109	106	103	110	106	104	101	102	100	98	99	97	95	95	94	92	91																				
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	81																				
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74																				
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67																				
5	87	77	70	65	85	76	70	65	74	69	64	72	68	64	71	66	63	61																				
6	82	72	65	60	80	71	64	59	69	63	59	68	62	59	66	62	58	56																				
7	77	67	60	55	76	66	59	55	65	59	55	63	58	54	62	57	54	52																				
8	73	62	56	51	72	62	55	51	61	55	51	60	54	50	59	54	50	49																				
9	70	59	52	48	68	58	52	47	57	51	47	56	51	47	55	50	47	45																				
10	66	55	49	45	65	55	49	44	54	48	44	53	48	44	52	47	44	43																				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6398	6398	6398
5°	6318	6215	6097
10°	6264	5683	5175
15°	6175	4917	3876
20°	6057	3952	2480
25°	5908	2897	1273
30°	5732	1895	416
35°	5558	1050	243
40°	5357	423	134
45°	5158	281	51
50°	4931	159	24
55°	4704	76	13
60°	4456	30	0
65°	4192	18	0
70°	3761	22	0
75°	3235	29	0
80°	2455	0	0
85°	1022	87	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5158 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.3	9.9
10°-20°	70.3	22.9
20°-30°	71.4	23.2
30°-40°	53.6	17.4
40°-50°	37.5	12.2
50°-60°	23.0	7.5
60°-70°	13.7	4.5
70°-80°	6.3	2.1
80°-90°	1.1	0.4
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°	172.0	56.0
0°-40°	225.6	73.4
0°-60°	286.1	93.1
0°-90°	307.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	307.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	338	338	338	338	338	
5°	332	335	327	321	321	32
15°	315	298	251	212	198	89
25°	283	233	139	79	61	130
35°	240	156	45	14	10	150
45°	192	83	10	3	2	148
55°	142	25	2	1	0	127
65°	94	7	0	0	0	92
75°	44	1	0	0	0	47
85°	5	0	0	0	0	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	337.7	337.7	337.7	337.7	337.7
2.5°	333.8	338.8	334.2	333.4	333.8
5°	332.2	335.3	326.8	320.6	320.6
7.5°	329.5	329.5	313.6	300.8	296.9
10°	325.6	321.4	295.4	274.8	269.0
12.5°	320.6	310.5	274.0	244.9	235.6
15°	314.8	297.7	250.7	212.3	197.6
17.5°	308.2	283.3	224.7	177.0	159.9
20°	300.4	267.8	196.0	140.9	123.0
22.5°	291.9	250.7	166.9	108.7	89.7
25°	282.6	232.9	138.6	79.2	60.9
27.5°	272.9	214.2	112.6	54.3	37.3
30°	262.0	194.8	86.6	32.2	19.0
32.5°	251.5	176.2	64.8	17.5	14.0
35°	240.3	156.4	45.4	13.6	10.5
37.5°	228.6	137.8	27.9	10.1	7.8
40°	216.6	118.8	17.1	7.4	5.4
42.5°	204.9	100.9	13.6	5.0	3.5
45°	192.5	82.7	10.5	3.1	1.9
47.5°	179.7	66.0	7.8	1.9	1.2
50°	167.3	51.2	5.4	1.2	0.8
52.5°	154.9	37.6	3.5	0.8	0.4
55°	142.4	25.2	2.3	0.8	0.4
57.5°	130.0	17.9	1.6	0.4	0.4
60°	117.6	14.0	0.8	0.4	0.0
62.5°	106.0	10.9	0.8	0.4	0.4
65°	93.5	7.4	0.4	0.4	0.0
67.5°	80.3	4.7	0.4	0.4	0.0
70°	67.9	2.7	0.4	0.4	0.0
72.5°	55.9	1.6	0.4	0.4	0.0
75°	44.2	0.8	0.4	0.4	0.0
77.5°	33.0	0.4	0.0	0.4	0.0
80°	22.5	0.0	0.0	0.4	0.0
82.5°	13.2	0.0	0.0	0.4	0.0
85°	4.7	0.0	0.4	0.4	0.0
87.5°	0.0	0.0	0.4	0.4	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)