

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: P1055187

Luminaire Tested: S122R3DR-S290D930-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055187
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-1)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122R3DR-S290D930-X4F0-XX-UDD-FLL-W
Description: DEFINE 2, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

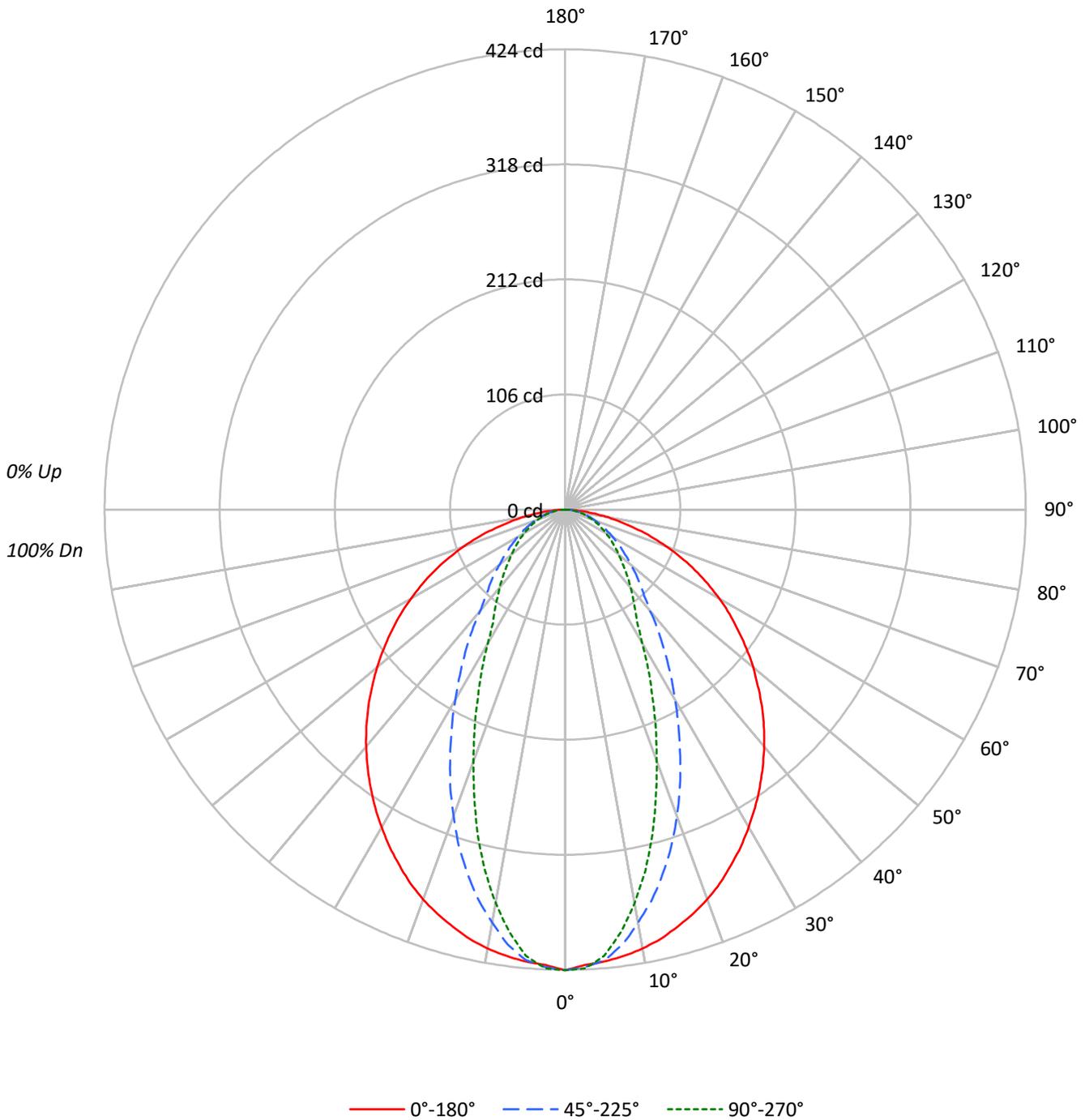
Lumens per Lamp: N/A
Luminaire Lumens: 642.0 lumens
Efficiency: N/A
Efficacy: 51.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.71 / 0.9
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

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					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	110	106	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89	87				
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75				
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66				
4	87	76	69	63	85	75	68	62	73	66	61	71	65	61	68	64	60	58				
5	81	69	61	55	79	68	61	55	66	60	55	64	59	54	63	58	54	52				
6	75	63	55	50	74	63	55	49	61	54	49	59	53	49	58	52	48	46				
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42				
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38				
9	62	50	43	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35				
10	59	47	39	35	58	46	39	34	45	39	34	44	38	34	43	38	34	32				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8041	8041	8041
5°	7950	7923	7849
10°	7899	7434	7080
15°	7810	6814	6090
20°	7706	6061	4972
25°	7553	5237	3970
30°	7390	4426	3098
35°	7223	3701	2602
40°	7049	3002	2317
45°	6864	2623	2074
50°	6661	2323	1892
55°	6434	2097	1757
60°	6210	1910	1641
65°	5918	1748	1542
70°	5484	1634	1457
75°	4861	1479	1376
80°	4146	1397	1277
85°	2848	1239	1152

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6864 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.9	6.1
10°-20°	98.2	15.3
20°-30°	121.0	18.8
30°-40°	116.1	18.1
40°-50°	100.1	15.6
50°-60°	77.7	12.1
60°-70°	53.2	8.3
70°-80°	28.9	4.5
80°-90°	7.9	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°	258.1	40.2
0°-40°	374.2	58.3
0°-60°	552.0	86.0
0°-90°	642.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	642.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	424	424	424	424	424	
5°	418	424	417	411	413	40
15°	398	386	347	319	310	112
25°	361	323	250	204	190	167
35°	312	248	160	119	112	195
45°	256	172	98	81	77	197
55°	195	104	64	55	53	174
65°	132	56	39	36	34	130
75°	66	26	20	19	19	71
85°	13	6	6	6	5	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	424.4	424.4	424.4	424.4	424.4
2.5°	419.8	426.9	421.9	421.9	423.0
5°	418.0	424.1	416.6	411.3	412.7
7.5°	414.8	419.1	404.2	392.8	392.5
10°	410.6	410.9	386.4	371.5	368.0
12.5°	405.3	399.6	368.4	346.0	340.7
15°	398.2	386.1	347.4	319.0	310.5
17.5°	390.7	372.3	325.1	289.6	277.9
20°	382.2	355.6	300.6	260.1	246.6
22.5°	372.6	339.6	276.1	231.7	217.5
25°	361.3	322.6	250.5	204.4	189.9
27.5°	350.3	305.2	226.0	180.3	165.4
30°	337.8	286.4	202.3	157.2	141.6
32.5°	325.4	267.2	180.3	135.2	123.5
35°	312.3	247.7	160.0	119.2	112.5
37.5°	298.8	228.5	140.9	108.6	102.6
40°	285.0	209.4	121.4	98.3	93.7
42.5°	270.8	190.6	107.9	89.8	85.5
45°	256.2	172.5	97.9	80.9	77.4
47.5°	240.6	154.4	88.4	73.5	70.3
50°	226.0	137.0	78.8	66.7	64.2
52.5°	210.4	119.9	71.0	60.7	58.6
55°	194.8	103.6	63.5	55.0	53.2
57.5°	179.6	88.0	56.4	49.7	48.3
60°	163.9	75.6	50.4	44.7	43.3
62.5°	148.0	65.7	44.7	40.1	38.7
65°	132.0	56.4	39.0	35.5	34.4
67.5°	115.3	47.6	34.1	31.2	30.5
70°	99.0	39.7	29.5	27.0	26.3
72.5°	83.0	32.3	24.8	23.1	22.4
75°	66.4	25.9	20.2	19.2	18.8
77.5°	51.8	20.2	16.3	15.6	15.3
80°	38.0	14.9	12.8	12.1	11.7
82.5°	25.2	10.3	9.2	8.9	8.5
85°	13.1	6.4	5.7	5.7	5.3
87.5°	4.3	2.8	2.8	2.8	2.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)