

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: P1055968

Luminaire Tested: S124R3DR-S1020D930-X4F0-XX-UDD-FLL-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055968
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-8)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124R3DR-S1020D930-X4F0-XX-UDD-FLL-B
Description: DEFINE 4, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

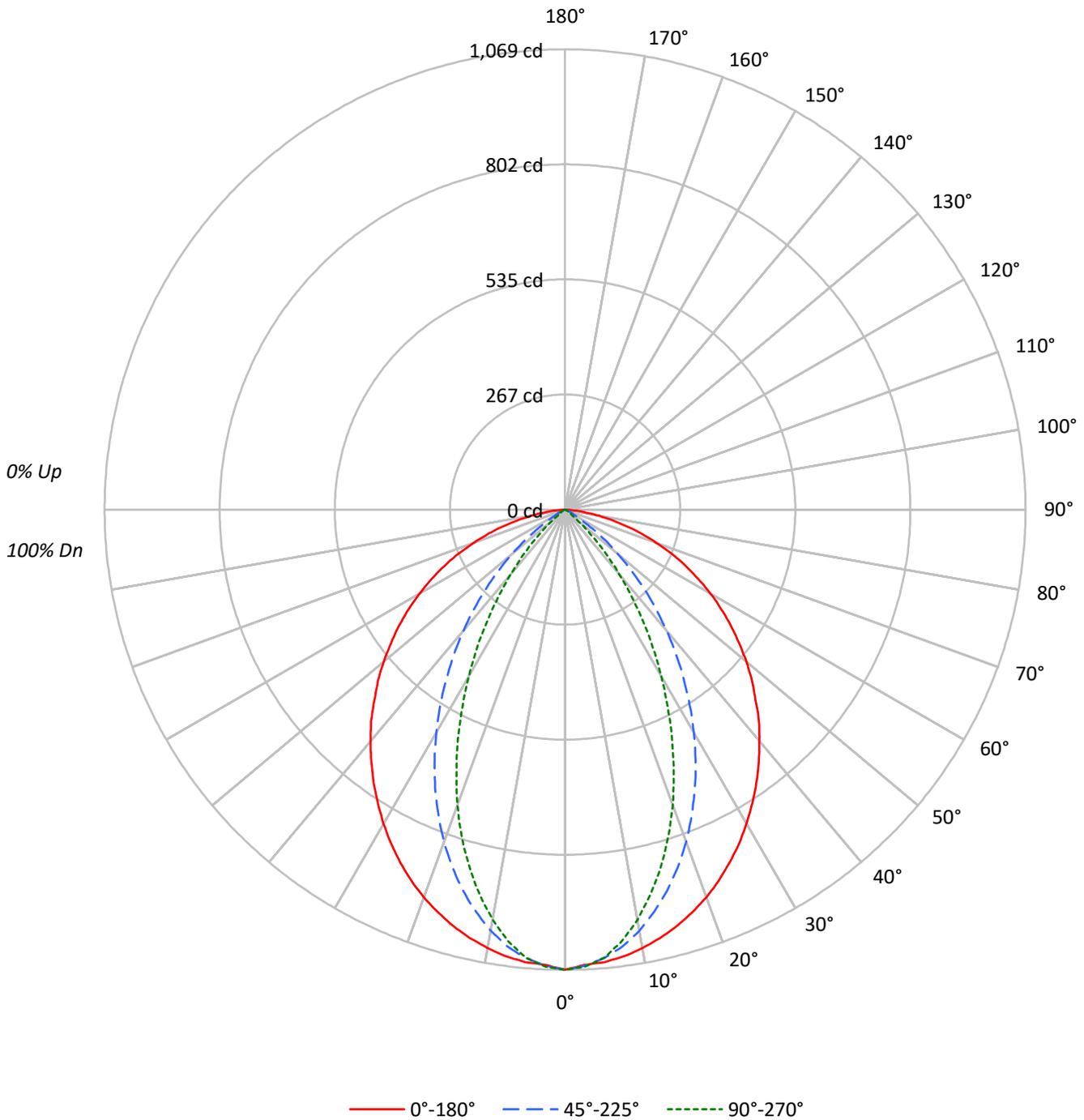
Lumens per Lamp: N/A
Luminaire Lumens: 1493.6 lumens
Efficiency: N/A
Efficacy: 43.0 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 0.81 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 34.7
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	108	105	102	109	106	103	100	102	99	97	98	96	94	95	93	92	90
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	65	64
5	84	74	66	61	83	73	66	61	71	65	60	69	64	60	67	63	59	57
6	79	68	60	55	77	67	60	55	65	59	54	64	58	54	62	57	54	52
7	74	63	55	50	73	62	55	50	60	54	50	59	53	49	58	53	49	47
8	70	58	51	46	68	57	50	46	56	50	45	55	49	45	54	49	45	43
9	66	54	47	42	64	53	47	42	52	46	42	51	46	42	50	45	41	40
10	62	50	43	39	61	50	43	39	49	43	39	48	42	39	47	42	38	37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9449	9449	9449
5°	9363	9280	9271
10°	9284	8917	8682
15°	9168	8382	7864
20°	9020	7728	6871
25°	8821	6960	5734
30°	8600	6107	4556
35°	8357	5180	3392
40°	8102	4221	2261
45°	7821	3222	1244
50°	7551	2205	345
55°	7251	1195	227
60°	6891	371	129
65°	6444	241	65
70°	5824	109	26
75°	5011	34	0
80°	3788	0	0
85°	1593	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7821 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.6	6.6
10°-20°	258.8	17.3
20°-30°	334.5	22.4
30°-40°	319.7	21.4
40°-50°	239.1	16.0
50°-60°	142.3	9.5
60°-70°	72.2	4.8
70°-80°	25.1	1.7
80°-90°	3.4	0.2
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°	691.9	46.3
0°-40°	1011.5	67.7
0°-60°	1392.9	93.3
0°-90°	1493.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1493.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1069	1069	1069	1069	1069	
5°	1055	1063	1046	1040	1045	100
15°	1002	981	916	873	859	282
25°	904	841	714	619	588	416
35°	774	667	480	357	314	484
45°	626	480	258	137	100	484
55°	470	292	78	18	15	420
65°	308	118	12	4	3	305
75°	147	16	1	1	0	156
85°	16	0	0	0	0	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1068.7	1068.7	1068.7	1068.7	1068.7
2.5°	1058.2	1070.8	1060.3	1061.3	1062.4
5°	1055.0	1063.4	1045.6	1040.4	1044.6
7.5°	1046.7	1049.8	1023.6	1010.0	1011.0
10°	1034.1	1030.9	993.2	970.2	967.0
12.5°	1019.4	1008.9	956.6	923.0	915.7
15°	1001.6	980.7	915.7	872.7	859.1
17.5°	980.7	950.3	870.6	814.1	797.3
20°	958.7	916.7	821.4	751.2	730.3
22.5°	932.5	879.0	768.0	685.2	659.0
25°	904.2	841.3	713.5	619.2	587.8
27.5°	874.8	800.5	655.9	552.1	515.5
30°	842.4	757.5	598.2	484.0	446.3
32.5°	808.8	713.5	538.5	421.2	379.3
35°	774.3	667.4	479.9	357.3	314.3
37.5°	738.6	621.3	423.3	296.5	252.5
40°	702.0	574.1	365.7	238.9	195.9
42.5°	666.3	527.0	311.2	184.4	144.6
45°	625.5	479.9	257.7	137.3	99.5
47.5°	588.8	433.8	206.4	93.2	58.7
50°	549.0	384.5	160.3	54.5	25.1
52.5°	509.2	338.4	117.3	24.1	18.9
55°	470.4	292.3	77.5	17.8	14.7
57.5°	429.6	246.2	41.9	13.6	10.5
60°	389.7	201.2	21.0	10.5	7.3
62.5°	348.9	158.2	16.8	6.3	4.2
65°	308.0	118.4	11.5	4.2	3.1
67.5°	267.2	80.7	7.3	2.1	1.0
70°	225.3	49.2	4.2	1.0	1.0
72.5°	185.4	25.1	2.1	1.0	1.0
75°	146.7	15.7	1.0	1.0	0.0
77.5°	109.0	8.4	1.0	1.0	0.0
80°	74.4	3.1	0.0	0.0	0.0
82.5°	43.0	1.0	0.0	0.0	0.0
85°	15.7	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)