

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: P1055971

Luminaire Tested: S124R3DR-S1020D935-X4F0-XX-UDD-FLL-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055971
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-S1020D935-X4F0-XX-UDD-FLL-B
Description: DEFINE 4, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

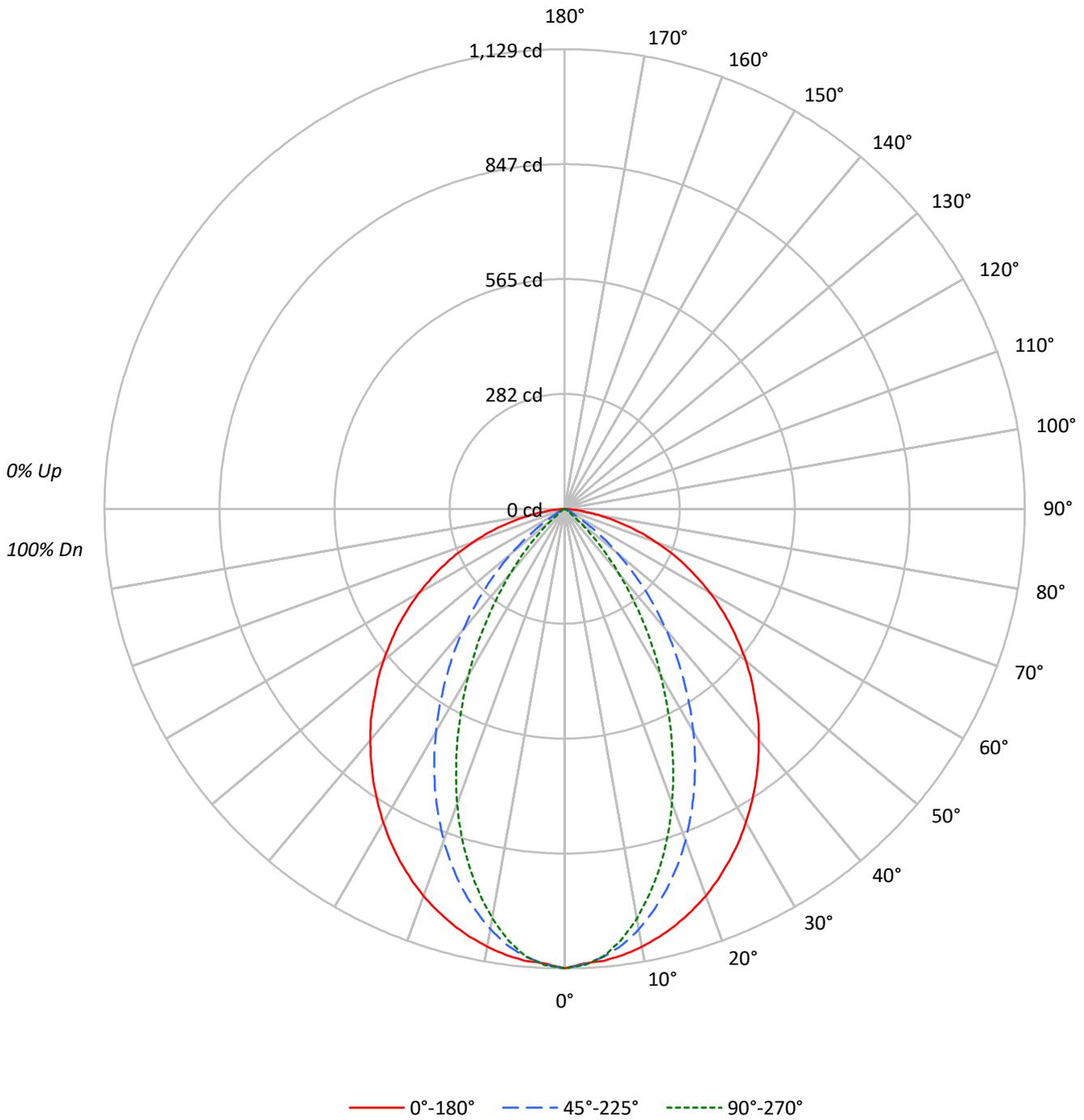
Lumens per Lamp: N/A
Luminaire Lumens: 1577.3 lumens
Efficiency: N/A
Efficacy: 45.5 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 0.81 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

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°	9978	9978	9978
5°	9889	9800	9790
10°	9805	9417	9168
15°	9682	8851	8305
20°	9525	8161	7256
25°	9315	7351	6055
30°	9082	6450	4812
35°	8826	5469	3582
40°	8556	4456	2388
45°	8259	3403	1314
50°	7975	2329	366
55°	7658	1262	239
60°	7278	391	136
65°	6805	255	69
70°	6150	114	28
75°	5291	38	0
80°	4002	0	0
85°	1684	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8259 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.1	6.6
10°-20°	273.3	17.3
20°-30°	353.2	22.4
30°-40°	337.6	21.4
40°-50°	252.5	16.0
50°-60°	150.2	9.5
60°-70°	76.3	4.8
70°-80°	26.5	1.7
80°-90°	3.6	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°	730.6	46.3
0°-40°	1068.2	67.7
0°-60°	1470.9	93.3
0°-90°	1577.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1577.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1129	1129	1129	1129	1129	
5°	1114	1123	1104	1099	1103	106
15°	1058	1036	967	922	907	298
25°	955	888	754	654	621	440
35°	818	705	507	377	332	511
45°	660	507	272	145	105	511
55°	497	309	82	19	16	444
65°	325	125	12	4	3	322
75°	155	17	1	1	0	164
85°	17	0	0	0	0	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1128.6	1128.6	1128.6	1128.6	1128.6
2.5°	1117.5	1130.8	1119.7	1120.8	1121.9
5°	1114.2	1123.0	1104.2	1098.7	1103.1
7.5°	1105.3	1108.7	1081.0	1066.6	1067.7
10°	1092.1	1088.7	1048.9	1024.6	1021.2
12.5°	1076.6	1065.5	1010.2	974.8	967.0
15°	1057.8	1035.6	967.0	921.7	907.3
17.5°	1035.6	1003.5	919.4	859.7	842.0
20°	1012.4	968.1	867.4	793.3	771.2
22.5°	984.7	928.3	811.0	723.6	695.9
25°	954.9	888.5	753.5	653.9	620.7
27.5°	923.9	845.3	692.6	583.1	544.4
30°	889.6	800.0	631.8	511.2	471.3
32.5°	854.2	753.5	568.7	444.8	400.5
35°	817.7	704.8	506.7	377.3	331.9
37.5°	780.0	656.1	447.0	313.1	266.7
40°	741.3	606.3	386.1	252.3	206.9
42.5°	703.7	556.5	328.6	194.7	152.7
45°	660.5	506.7	272.2	144.9	105.1
47.5°	621.8	458.1	218.0	98.5	62.0
50°	579.8	406.1	169.3	57.5	26.6
52.5°	537.7	357.4	123.9	25.4	19.9
55°	496.8	308.7	81.9	18.8	15.5
57.5°	453.6	260.0	44.3	14.4	11.1
60°	411.6	212.4	22.1	11.1	7.7
62.5°	368.4	167.1	17.7	6.6	4.4
65°	325.3	125.0	12.2	4.4	3.3
67.5°	282.1	85.2	7.7	2.2	1.1
70°	237.9	52.0	4.4	1.1	1.1
72.5°	195.8	26.6	2.2	1.1	1.1
75°	154.9	16.6	1.1	1.1	0.0
77.5°	115.1	8.9	1.1	1.1	0.0
80°	78.6	3.3	0.0	0.0	0.0
82.5°	45.4	1.1	0.0	0.0	0.0
85°	16.6	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)