

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: P1055969

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

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055969
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-9)
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-S
Description: DEFINE 4, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

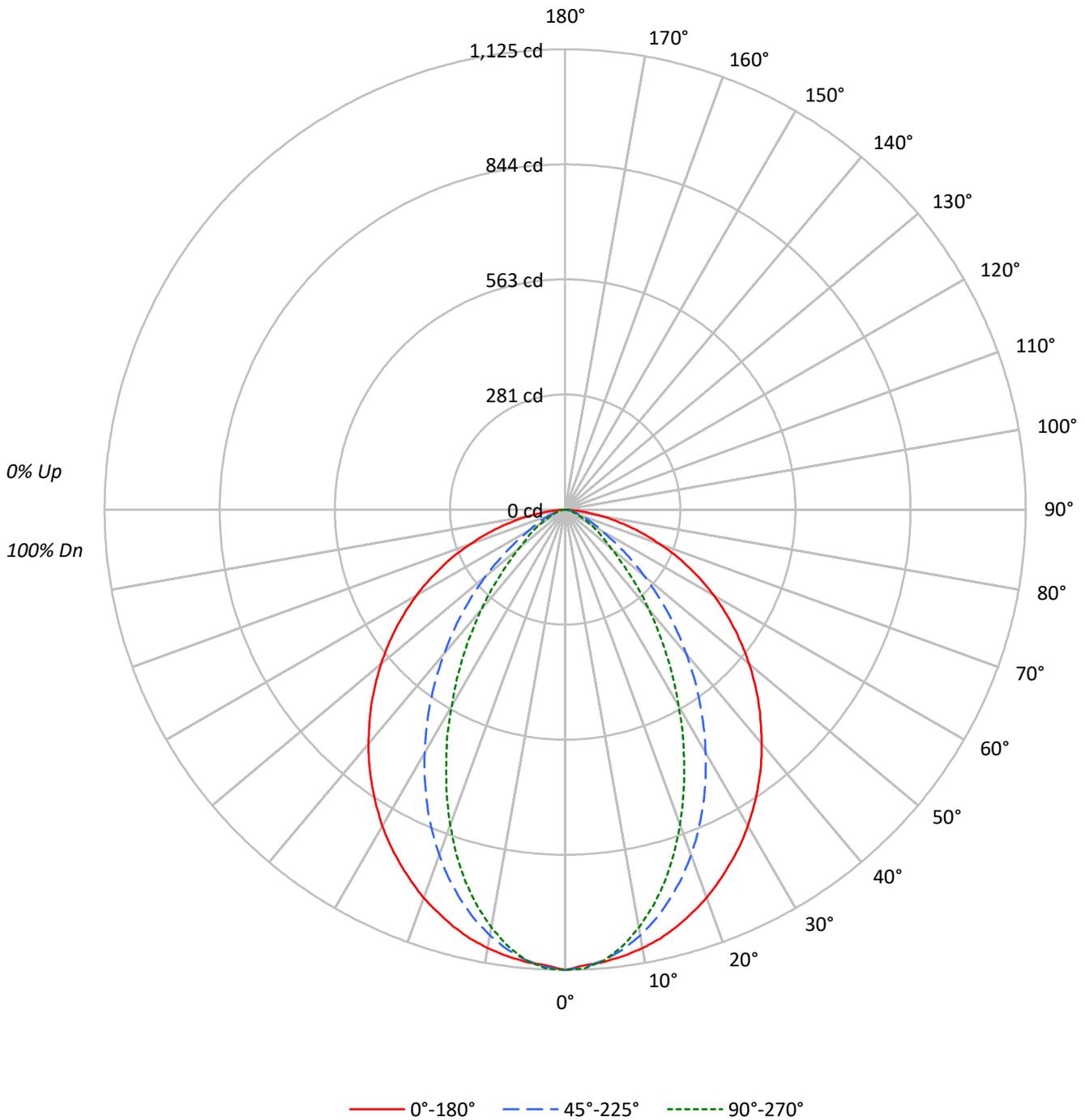
Lumens per Lamp: N/A
Luminaire Lumens: 1819.5 lumens
Efficiency: N/A
Efficacy: 52.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.87 / 1.03
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90	89
2	103	96	91	86	101	94	89	85	91	87	83	88	84	81	85	82	79	78
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68
4	89	78	71	65	86	77	70	65	75	69	64	73	67	63	71	66	62	60
5	82	71	64	58	80	70	63	58	68	62	57	66	61	56	65	60	56	54
6	77	65	57	52	75	64	57	52	63	56	51	61	55	51	60	54	50	48
7	72	60	52	47	70	59	52	47	58	51	46	56	50	46	55	50	46	44
8	67	55	48	42	66	55	47	42	53	47	42	52	46	42	51	46	42	40
9	63	51	44	39	62	51	44	39	50	43	39	49	43	38	48	42	38	37
10	60	48	41	36	59	47	40	36	46	40	36	45	40	35	45	39	35	34

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9948	9948	9948
5°	9847	9810	9810
10°	9773	9490	9312
15°	9657	9033	8611
20°	9503	8458	7719
25°	9312	7778	6705
30°	9113	7007	5648
35°	8878	6186	4648
40°	8622	5308	3664
45°	8357	4415	2738
50°	8070	3473	2003
55°	7752	2568	1598
60°	7411	1779	1222
65°	6971	1381	900
70°	6310	975	703
75°	5510	680	536
80°	4430	535	479
85°	2445	426	426

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8357 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.4	5.7
10°-20°	278.9	15.3
20°-30°	372.0	20.4
30°-40°	374.5	20.6
40°-50°	307.1	16.9
50°-60°	210.0	11.5
60°-70°	117.3	6.4
70°-80°	46.5	2.6
80°-90°	8.8	0.5
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°	755.2	41.5
0°-40°	1129.7	62.1
0°-60°	1646.8	90.5
0°-90°	1819.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1819.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1125	1125	1125	1125	1125	
5°	1110	1122	1105	1100	1105	105
15°	1055	1044	987	952	941	297
25°	954	907	797	717	687	440
35°	822	736	573	464	431	514
45°	668	546	353	248	219	515
55°	503	353	167	111	104	450
65°	333	168	66	47	43	329
75°	161	44	20	17	16	173
85°	24	4	4	4	4	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1125.2	1125.2	1125.2	1125.2	1125.2
2.5°	1114.8	1128.4	1119.0	1120.0	1122.1
5°	1109.5	1122.1	1105.3	1100.1	1105.3
7.5°	1100.1	1109.5	1084.4	1073.9	1076.0
10°	1088.6	1091.7	1057.1	1039.3	1037.2
12.5°	1073.9	1069.7	1024.7	998.5	992.2
15°	1055.0	1043.5	986.9	952.4	940.8
17.5°	1033.0	1013.1	945.0	900.0	883.2
20°	1010.0	980.7	898.9	841.3	820.4
22.5°	982.8	946.1	849.7	779.5	755.4
25°	954.5	907.3	797.3	716.6	687.3
27.5°	925.1	867.5	742.8	652.7	623.4
30°	892.6	824.5	686.3	588.8	553.2
32.5°	858.1	780.5	629.7	526.0	492.4
35°	822.5	735.5	573.1	464.1	430.6
37.5°	785.8	689.4	516.5	405.5	371.9
40°	747.0	642.2	459.9	349.9	317.5
42.5°	707.2	594.1	405.5	297.5	267.2
45°	668.4	545.9	353.1	248.3	219.0
47.5°	627.6	497.7	301.7	202.2	177.1
50°	586.7	449.5	252.5	162.4	145.6
52.5°	544.8	401.3	207.4	133.1	121.5
55°	502.9	353.1	166.6	111.1	103.7
57.5°	461.0	304.9	128.9	94.3	85.9
60°	419.1	257.7	100.6	76.5	69.1
62.5°	376.1	210.6	82.8	60.8	54.5
65°	333.2	167.6	66.0	47.1	43.0
67.5°	290.2	127.8	50.3	36.7	33.5
70°	244.1	91.2	37.7	28.3	27.2
72.5°	204.3	61.8	27.2	22.0	21.0
75°	161.3	44.0	19.9	16.8	15.7
77.5°	124.7	28.3	14.7	13.6	12.6
80°	87.0	15.7	10.5	9.4	9.4
82.5°	53.4	8.4	7.3	6.3	6.3
85°	24.1	4.2	4.2	4.2	4.2
87.5°	4.2	2.1	2.1	2.1	2.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)