

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: P1055954

Luminaire Tested: S124R3DR-S1020D830-X4F0-XX-UDD-FLL-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055954
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-S1020D830-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, 80 CRI LEDS
Ballast/Driver: -

Summary

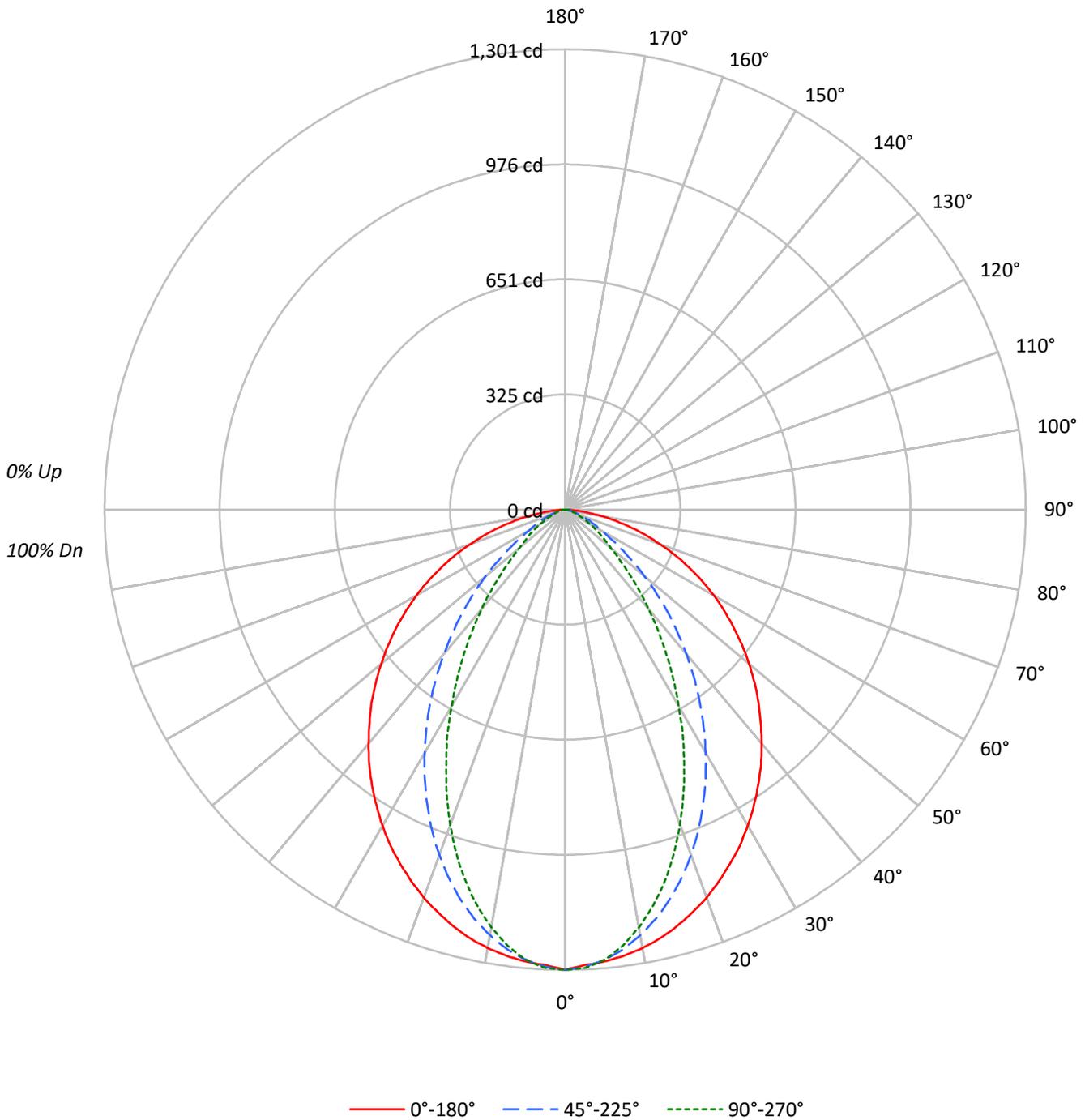
Lumens per Lamp: N/A
Luminaire Lumens: 2103.4 lumens
Efficiency: N/A
Efficacy: 60.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.87 / 1.03
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

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										
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	50	30	10	0														
RCR																																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100						100														
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90	89						89														
2	103	96	91	86	101	94	89	85	91	87	83	88	84	81	85	82	79	78						78														
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68						68														
4	89	78	71	65	86	77	70	65	75	69	64	73	67	63	71	66	62	60						60														
5	82	71	64	58	80	70	63	58	68	62	57	66	61	56	65	60	56	54						54														
6	77	65	57	52	75	64	57	52	63	56	51	61	55	51	60	54	50	48						48														
7	72	60	52	47	70	59	52	47	58	51	46	56	50	46	55	50	46	44						44														
8	67	55	48	42	66	55	47	42	53	47	42	52	46	42	51	46	42	40						40														
9	63	51	44	39	62	51	44	39	50	43	39	49	43	38	48	42	38	37						37														
10	60	48	41	36	59	47	40	36	46	40	36	45	40	35	45	39	35	34						34														

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11502	11502	11502
5°	11384	11341	11341
10°	11299	10972	10765
15°	11164	10444	9956
20°	10986	9778	8923
25°	10764	8992	7752
30°	10536	8100	6529
35°	10262	7151	5373
40°	9967	6137	4236
45°	9663	5104	3165
50°	9330	4015	2316
55°	8962	2969	1848
60°	8567	2057	1413
65°	8059	1596	1040
70°	7295	1127	814
75°	6371	786	622
80°	5117	616	555
85°	2830	487	487

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9663 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	120.7	5.7
10°-20°	322.4	15.3
20°-30°	430.0	20.4
30°-40°	433.0	20.6
40°-50°	355.1	16.9
50°-60°	242.7	11.5
60°-70°	135.6	6.4
70°-80°	53.8	2.6
80°-90°	10.2	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°	873.1	41.5
0°-40°	1306.0	62.1
0°-60°	1903.8	90.5
0°-90°	2103.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2103.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1301	1301	1301	1301	1301	
5°	1283	1297	1278	1272	1278	122
15°	1220	1206	1141	1101	1088	344
25°	1103	1049	922	828	795	508
35°	951	850	662	537	498	595
45°	773	631	408	287	253	596
55°	581	408	193	128	120	520
65°	385	194	76	54	50	381
75°	186	51	23	19	18	200
85°	28	5	5	5	5	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1300.9	1300.9	1300.9	1300.9	1300.9
2.5°	1288.7	1304.5	1293.6	1294.8	1297.2
5°	1282.7	1297.2	1277.8	1271.8	1277.8
7.5°	1271.8	1282.7	1253.6	1241.5	1243.9
10°	1258.5	1262.1	1222.1	1201.5	1199.1
12.5°	1241.5	1236.7	1184.6	1154.3	1147.0
15°	1219.7	1206.4	1141.0	1101.0	1087.7
17.5°	1194.3	1171.3	1092.5	1040.4	1021.1
20°	1167.6	1133.7	1039.2	972.6	948.4
22.5°	1136.1	1093.7	982.3	901.2	873.3
25°	1103.4	1048.9	921.7	828.5	794.6
27.5°	1069.5	1002.9	858.8	754.6	720.7
30°	1032.0	953.2	793.4	680.7	639.5
32.5°	992.0	902.4	727.9	608.0	569.3
35°	950.8	850.3	662.5	536.6	497.8
37.5°	908.4	797.0	597.1	468.7	430.0
40°	863.6	742.5	531.7	404.6	367.0
42.5°	817.6	686.8	468.7	344.0	308.9
45°	772.8	631.0	408.2	287.1	253.1
47.5°	725.5	575.3	348.8	233.8	204.7
50°	678.3	519.6	291.9	187.7	168.4
52.5°	629.8	463.9	239.8	153.8	140.5
55°	581.4	408.2	192.6	128.4	119.9
57.5°	532.9	352.5	149.0	109.0	99.3
60°	484.5	298.0	116.3	88.4	79.9
62.5°	434.8	243.5	95.7	70.3	63.0
65°	385.2	193.8	76.3	54.5	49.7
67.5°	335.5	147.8	58.1	42.4	38.8
70°	282.2	105.4	43.6	32.7	31.5
72.5°	236.2	71.5	31.5	25.4	24.2
75°	186.5	50.9	23.0	19.4	18.2
77.5°	144.1	32.7	17.0	15.7	14.5
80°	100.5	18.2	12.1	10.9	10.9
82.5°	61.8	9.7	8.5	7.3	7.3
85°	27.9	4.8	4.8	4.8	4.8
87.5°	4.8	2.4	2.4	2.4	2.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)