

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: P1055953

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

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055953
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-S1020D830-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, 80 CRI LEDS
Ballast/Driver: -

Summary

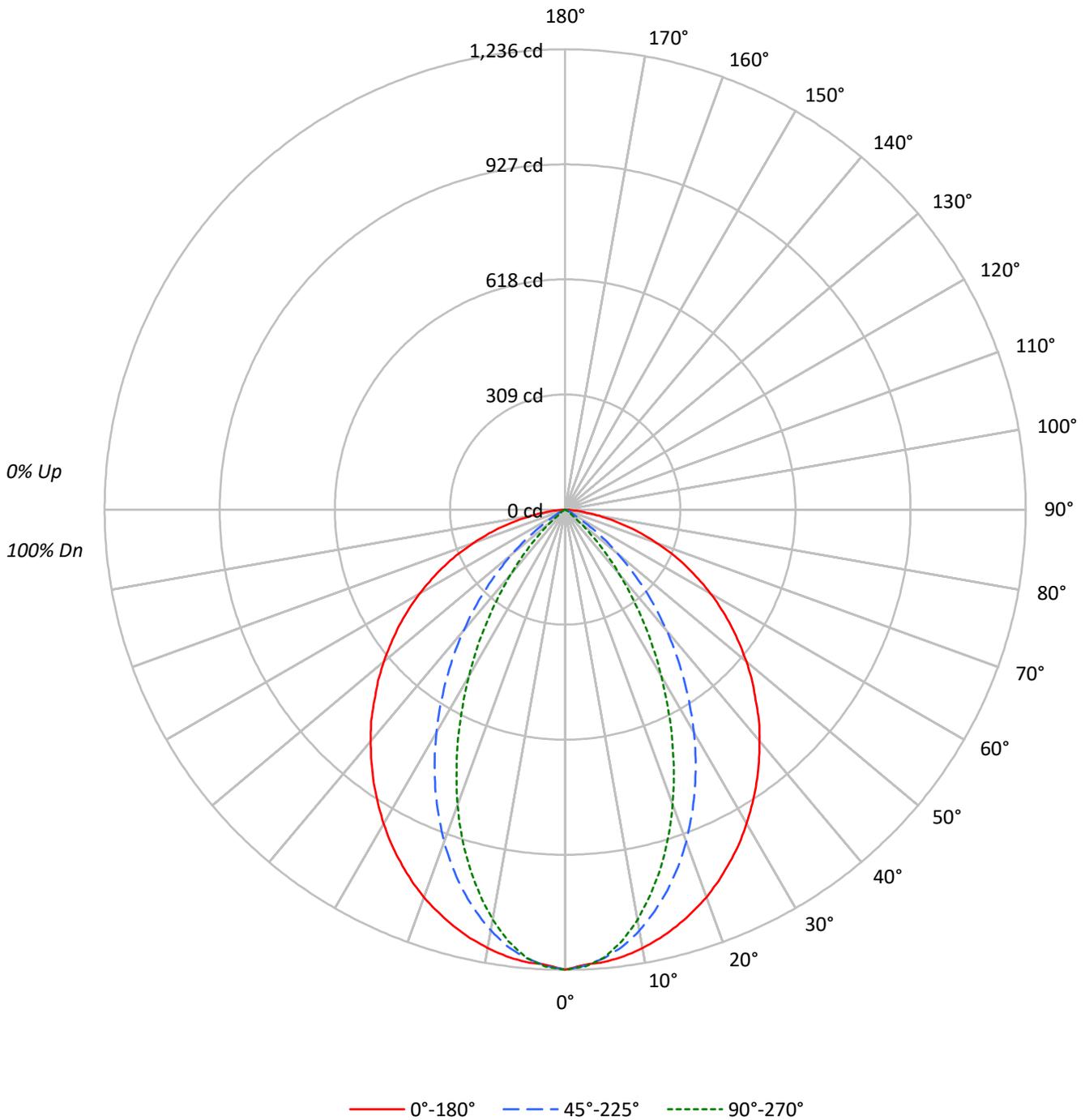
Lumens per Lamp: N/A
Luminaire Lumens: 1726.7 lumens
Efficiency: N/A
Efficacy: 49.8 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 0.81 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

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°	10924	10924	10924
5°	10825	10728	10718
10°	10733	10308	10037
15°	10599	9690	9091
20°	10428	8935	7943
25°	10197	8046	6629
30°	9942	7061	5268
35°	9661	5987	3922
40°	9366	4879	2614
45°	9041	3726	1439
50°	8730	2549	400
55°	8382	1381	262
60°	7968	428	150
65°	7450	278	75
70°	6731	124	31
75°	5794	41	0
80°	4379	0	0
85°	1846	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9041 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.0	6.6
10°-20°	299.2	17.3
20°-30°	386.6	22.4
30°-40°	369.6	21.4
40°-50°	276.4	16.0
50°-60°	164.5	9.5
60°-70°	83.5	4.8
70°-80°	29.0	1.7
80°-90°	4.0	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°	799.8	46.3
0°-40°	1169.4	67.7
0°-60°	1610.2	93.3
0°-90°	1726.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1726.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1236	1236	1236	1236	1236	
5°	1220	1229	1209	1203	1208	116
15°	1158	1134	1059	1009	993	326
25°	1045	973	825	716	680	481
35°	895	772	555	413	363	560
45°	723	555	298	159	115	559
55°	544	338	90	21	17	486
65°	356	137	13	5	4	352
75°	170	18	1	1	0	180
85°	18	0	0	0	0	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1235.5	1235.5	1235.5	1235.5	1235.5
2.5°	1223.3	1237.9	1225.8	1227.0	1228.2
5°	1219.7	1229.4	1208.8	1202.7	1207.6
7.5°	1210.0	1213.6	1183.4	1167.6	1168.8
10°	1195.5	1191.8	1148.2	1121.6	1118.0
12.5°	1178.5	1166.4	1105.9	1067.1	1058.6
15°	1157.9	1133.7	1058.6	1009.0	993.2
17.5°	1133.7	1098.6	1006.5	941.1	921.7
20°	1108.3	1059.8	949.6	868.5	844.2
22.5°	1078.0	1016.2	887.8	792.1	761.9
25°	1045.3	972.6	824.8	715.8	679.5
27.5°	1011.4	925.4	758.2	638.3	595.9
30°	973.8	875.7	691.6	559.6	516.0
32.5°	935.1	824.8	622.6	486.9	438.5
35°	895.1	771.6	554.7	413.0	363.4
37.5°	853.9	718.3	489.3	342.8	291.9
40°	811.5	663.8	422.7	276.2	226.5
42.5°	770.3	609.2	359.7	213.2	167.1
45°	723.1	554.7	298.0	158.7	115.1
47.5°	680.7	501.4	238.6	107.8	67.8
50°	634.7	444.5	185.3	63.0	29.1
52.5°	588.7	391.2	135.7	27.9	21.8
55°	543.8	337.9	89.6	20.6	17.0
57.5°	496.6	284.6	48.4	15.7	12.1
60°	450.6	232.6	24.2	12.1	8.5
62.5°	403.3	182.9	19.4	7.3	4.8
65°	356.1	136.9	13.3	4.8	3.6
67.5°	308.9	93.3	8.5	2.4	1.2
70°	260.4	56.9	4.8	1.2	1.2
72.5°	214.4	29.1	2.4	1.2	1.2
75°	169.6	18.2	1.2	1.2	0.0
77.5°	126.0	9.7	1.2	1.2	0.0
80°	86.0	3.6	0.0	0.0	0.0
82.5°	49.7	1.2	0.0	0.0	0.0
85°	18.2	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)