

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: P1055548

Luminaire Tested: S123R3DR-S1000D830-X4F0-XX-UDD-FLL-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055548
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-5)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123R3DR-S1000D830-X4F0-XX-UDD-FLL-B
Description: DEFINE 3, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

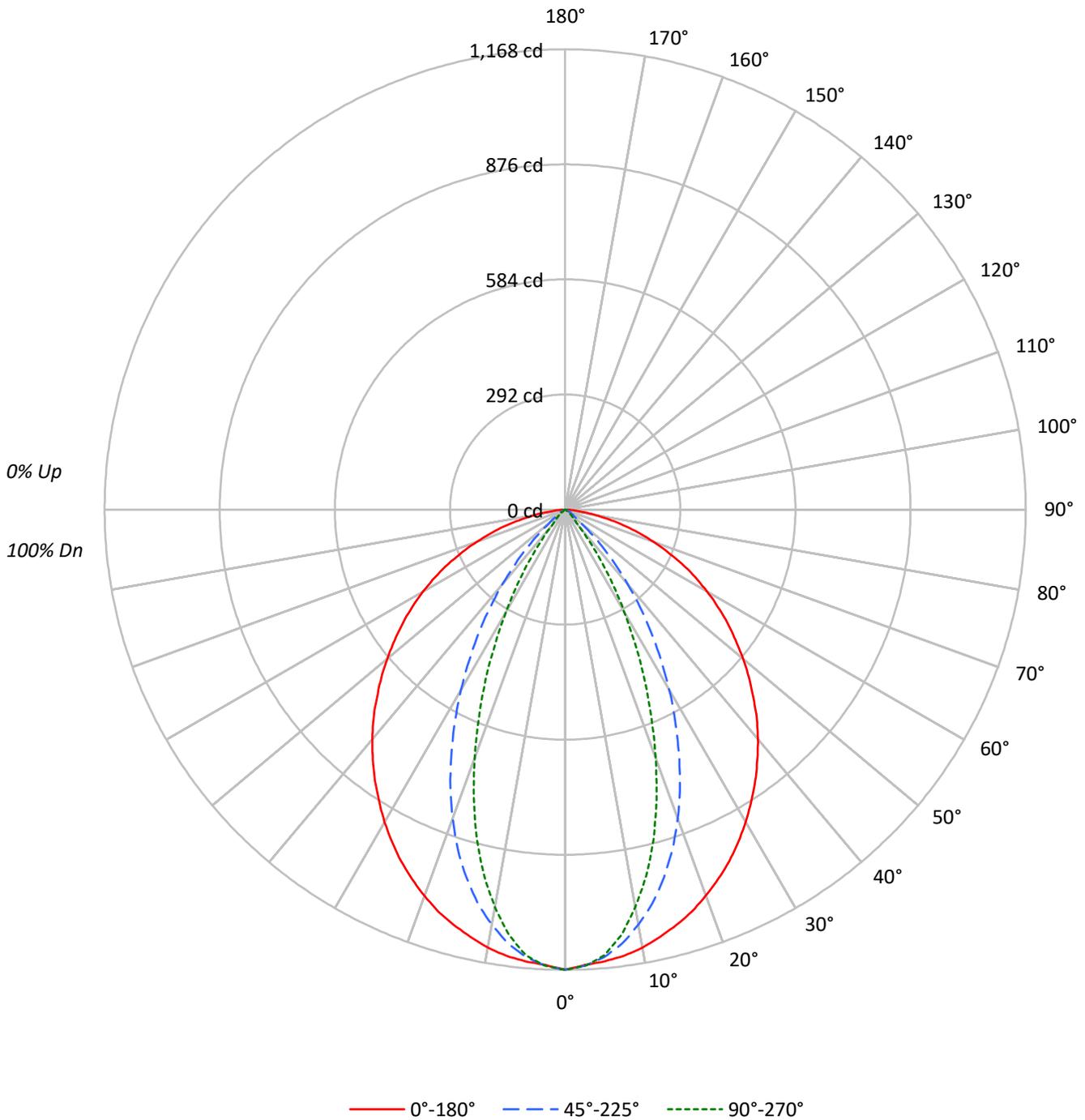
Lumens per Lamp: N/A
Luminaire Lumens: 1366.5 lumens
Efficiency: N/A
Efficacy: 39.4 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 0.7 / 0.86
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P1055548

CATALOG NUMBER: S123R3DR-S1000D830-X4F0-XX-UDD-FLL-B

Luminous Intensity Polar Plot





TEST NUMBER: P1055548

CATALOG NUMBER: S123R3DR-S1000D830-X4F0-XX-UDD-FLL-B

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	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	103	109	106	104	101	102	100	98	98	97	95	95	93	92	90				
2	105	99	94	89	102	97	92	88	93	90	86	90	87	84	87	85	83	81				
3	98	90	84	79	96	88	83	78	86	81	77	83	79	76	81	77	74	73				
4	92	82	75	70	90	81	75	70	79	73	69	77	72	68	75	71	67	65				
5	86	76	69	63	84	75	68	63	73	67	62	71	66	62	69	65	61	59				
6	81	70	63	58	79	69	62	57	67	61	57	66	61	56	64	60	56	54				
7	76	65	58	53	74	64	57	52	63	57	52	61	56	52	60	55	52	50				
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	48	46				
9	68	56	49	45	66	56	49	45	55	49	45	54	48	44	53	48	44	43				
10	64	53	46	42	63	52	46	42	51	46	41	51	45	41	50	45	41	40				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14077	14077	14077
5°	13926	13794	13750
10°	13820	13093	12545
15°	13621	12065	10809
20°	13381	10707	8609
25°	13099	9071	6348
30°	12748	7352	4165
35°	12372	5597	2281
40°	11971	3870	782
45°	11504	2251	454
50°	11042	885	272
55°	10567	559	128
60°	10019	350	58
65°	9329	174	34
70°	8368	85	42
75°	7108	56	56
80°	5298	83	0
85°	2006	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 11504 cd/sqm



TEST NUMBER: P1055548

CATALOG NUMBER: S123R3DR-S1000D830-X4F0-XX-UDD-FLL-B

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.1	7.8
10°-20°	271.7	19.9
20°-30°	324.1	23.7
30°-40°	274.9	20.1
40°-50°	186.8	13.7
50°-60°	115.8	8.5
60°-70°	58.6	4.3
70°-80°	23.9	1.7
80°-90°	3.7	0.3
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°	702.8	51.4
0°-40°	977.7	71.5
0°-60°	1280.3	93.7
0°-90°	1366.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1366.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1168	1168	1168	1168	1168	
5°	1151	1162	1140	1131	1136	109
15°	1091	1064	967	890	866	308
25°	985	893	682	527	477	453
35°	841	675	380	205	155	525
45°	675	442	132	33	27	521
55°	503	223	27	10	6	449
65°	327	54	6	1	1	323
75°	153	10	1	1	1	162
85°	14	0	0	1	0	26
90°	0	0	0	0	0	



TEST NUMBER: P1055548

CATALOG NUMBER: S123R3DR-S1000D830-X4F0-XX-UDD-FLL-B

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1167.6	1167.6	1167.6	1167.6	1167.6
2.5°	1156.7	1172.5	1159.1	1157.9	1159.1
5°	1150.7	1161.6	1139.8	1131.3	1136.1
7.5°	1142.2	1147.0	1110.7	1088.9	1088.9
10°	1128.9	1125.2	1069.5	1033.2	1024.7
12.5°	1110.7	1096.2	1023.5	966.6	950.8
15°	1091.3	1063.5	966.6	890.3	866.0
17.5°	1069.5	1027.1	904.8	805.5	770.3
20°	1042.9	985.9	834.5	713.4	671.0
22.5°	1015.0	941.1	760.6	618.9	571.7
25°	984.7	892.7	681.9	526.9	477.2
27.5°	950.8	841.8	604.4	438.5	384.0
30°	915.7	788.5	528.1	353.7	299.2
32.5°	878.1	732.8	451.8	276.2	225.3
35°	840.6	674.7	380.3	204.7	155.0
37.5°	800.6	616.5	311.3	141.7	98.1
40°	760.6	559.6	245.9	89.6	49.7
42.5°	719.5	500.2	186.5	44.8	33.9
45°	674.7	442.1	132.0	32.7	26.6
47.5°	632.3	386.4	87.2	26.6	20.6
50°	588.7	330.7	47.2	19.4	14.5
52.5°	545.1	277.4	33.9	14.5	9.7
55°	502.7	222.9	26.6	9.7	6.1
57.5°	459.1	175.6	20.6	6.1	3.6
60°	415.5	129.6	14.5	3.6	2.4
62.5°	371.8	89.6	9.7	2.4	1.2
65°	327.0	54.5	6.1	1.2	1.2
67.5°	281.0	37.5	3.6	1.2	1.2
70°	237.4	26.6	2.4	1.2	1.2
72.5°	193.8	17.0	1.2	1.2	0.0
75°	152.6	9.7	1.2	1.2	1.2
77.5°	112.6	3.6	1.2	1.2	0.0
80°	76.3	1.2	1.2	1.2	0.0
82.5°	42.4	0.0	1.2	1.2	0.0
85°	14.5	0.0	0.0	1.2	0.0
87.5°	0.0	0.0	0.0	1.2	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)