

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1055698

Luminaire Tested: S123R3DRP-H1000D930-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055698
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: S123R3DRP-H1000D930-X4F0-XX-UDD-F-B
Description: DEFINE 3, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

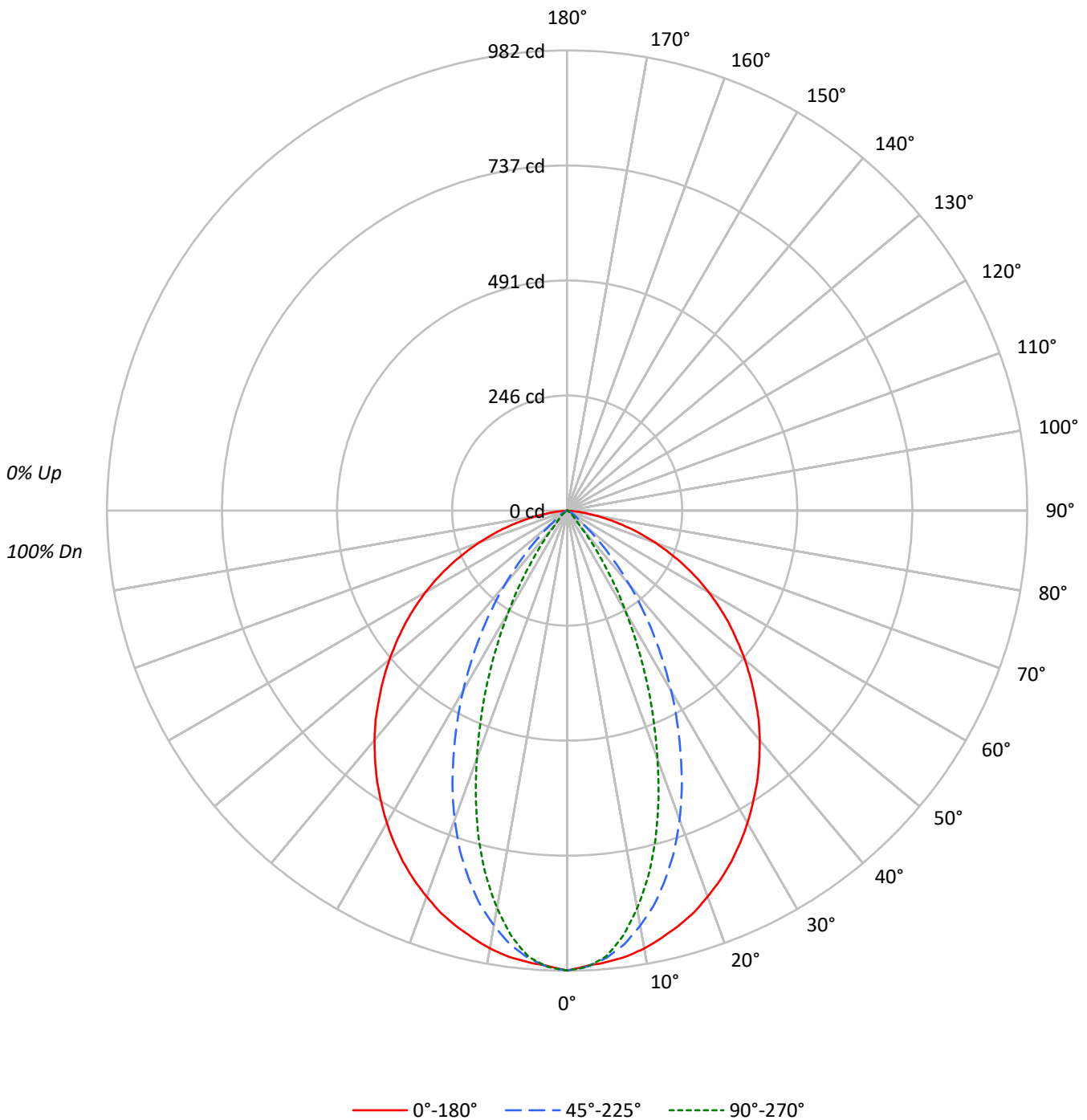
Lumens per Lamp: N/A
Luminaire Lumens: 1148.7 lumens
Efficiency: N/A
Efficacy: 37.2 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 0.7 / 0.86
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 30.9
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: P1055698

CATALOG NUMBER: S123R3DRP-H1000D930-X4F0-XX-UDD-F-B

Luminous Intensity Polar Plot





TEST NUMBER: P1055698

CATALOG NUMBER: S123R3DRP-H1000D930-X4F0-XX-UDD-F-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	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	112	108	105	103	109	106	104	101	102	100	98	98	97	95	95	93	92	90					90			
2	105	99	94	89	102	97	92	88	93	90	86	90	87	84	87	85	83	81					81			
3	98	90	84	79	96	88	83	78	86	81	77	83	79	76	81	77	74	73					73			
4	92	82	75	70	90	81	75	70	79	73	69	77	72	68	75	71	67	65					65			
5	86	76	69	63	84	75	68	63	73	67	62	71	66	62	69	65	61	59					59			
6	81	70	63	58	79	69	62	57	67	61	57	66	61	56	64	60	56	54					54			
7	76	65	58	53	74	64	57	52	63	57	52	61	56	52	60	55	52	50					50			
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	48	46					46			
9	68	56	49	45	66	56	49	45	55	49	45	54	48	44	53	48	44	43					43			
10	64	53	46	42	63	52	46	42	51	46	41	51	45	41	50	45	41	40					40			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11833	11833	11833
5°	11707	11595	11559
10°	11617	11007	10546
15°	11451	10141	9087
20°	11248	9000	7237
25°	11012	7625	5337
30°	10715	6180	3501
35°	10400	4705	1918
40°	10063	3253	656
45°	9669	1893	382
50°	9281	745	229
55°	8881	471	107
60°	8420	294	48
65°	7842	145	29
70°	7036	71	35
75°	5977	47	47
80°	4450	69	0
85°	1688	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9669 cd/sqm



TEST NUMBER: P1055698

CATALOG NUMBER: S123R3DRP-H1000D930-X4F0-XX-UDD-F-B

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.0	7.8
10°-20°	228.4	19.9
20°-30°	272.4	23.7
30°-40°	231.1	20.1
40°-50°	157.1	13.7
50°-60°	97.3	8.5
60°-70°	49.3	4.3
70°-80°	20.1	1.7
80°-90°	3.1	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°	590.8	51.4
0°-40°	821.9	71.5
0°-60°	1076.2	93.7
0°-90°	1148.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1148.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	982	982	982	982	982	
5°	967	976	958	951	955	92
15°	917	894	812	748	728	259
25°	828	750	573	443	401	381
35°	707	567	320	172	130	442
45°	567	372	111	28	22	438
55°	422	187	22	8	5	377
65°	275	46	5	1	1	272
75°	128	8	1	1	1	136
85°	12	0	0	1	0	22
90°	0	0	0	0	0	



TEST NUMBER: P1055698

CATALOG NUMBER: S123R3DRP-H1000D930-X4F0-XX-UDD-F-B

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	981.5	981.5	981.5	981.5	981.5
2.5°	972.4	985.6	974.4	973.4	974.4
5°	967.3	976.4	958.1	951.0	955.1
7.5°	960.1	964.2	933.7	915.3	915.3
10°	948.9	945.9	899.1	868.5	861.4
12.5°	933.7	921.5	860.4	812.5	799.3
15°	917.4	894.0	812.5	748.4	728.0
17.5°	899.1	863.4	760.6	677.1	647.6
20°	876.7	828.8	701.5	599.7	564.1
22.5°	853.2	791.1	639.4	520.3	480.6
25°	827.8	750.4	573.2	442.9	401.2
27.5°	799.3	707.6	508.1	368.6	322.8
30°	769.7	662.8	443.9	297.3	251.5
32.5°	738.2	616.0	379.8	232.1	189.4
35°	706.6	567.1	319.7	172.1	130.3
37.5°	673.0	518.3	261.7	119.1	82.5
40°	639.4	470.4	206.7	75.3	41.7
42.5°	604.8	420.5	156.8	37.7	28.5
45°	567.1	371.6	111.0	27.5	22.4
47.5°	531.5	324.8	73.3	22.4	17.3
50°	494.8	278.0	39.7	16.3	12.2
52.5°	458.2	233.2	28.5	12.2	8.1
55°	422.5	187.3	22.4	8.1	5.1
57.5°	385.9	147.6	17.3	5.1	3.1
60°	349.2	108.9	12.2	3.1	2.0
62.5°	312.6	75.3	8.1	2.0	1.0
65°	274.9	45.8	5.1	1.0	1.0
67.5°	236.2	31.6	3.1	1.0	1.0
70°	199.6	22.4	2.0	1.0	1.0
72.5°	162.9	14.3	1.0	1.0	0.0
75°	128.3	8.1	1.0	1.0	1.0
77.5°	94.7	3.1	1.0	1.0	0.0
80°	64.1	1.0	1.0	1.0	0.0
82.5°	35.6	0.0	1.0	1.0	0.0
85°	12.2	0.0	0.0	1.0	0.0
87.5°	0.0	0.0	0.0	1.0	0.0
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1055698
 CATALOG NUMBER: S123R3DRP-H1000D930-X4F0-XX-UDD-F-B

CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	17.63	18.91	18.00	19.23	19.54	0.00	0.00	0.00	0.00	0.00
	3H	19.58	20.71	19.96	21.04	21.41	0.00	0.00	0.00	0.00	0.00
	4H	20.40	21.46	20.81	21.81	22.20	0.00	0.00	0.00	0.00	0.00
	6H	20.96	21.93	21.37	22.30	22.69	0.00	0.00	0.00	0.00	0.00
	8H	21.08	22.00	21.52	22.39	22.80	0.00	0.00	0.00	0.00	0.00
	12H	21.11	21.98	21.54	22.37	22.80	0.00	0.00	0.00	0.00	0.00
4H	2H	17.40	18.45	17.80	18.80	19.19	0.00	0.00	0.00	0.00	0.00
	3H	19.35	20.21	19.76	20.62	21.02	0.00	0.00	0.00	0.00	0.00
	4H	20.16	20.93	20.60	21.35	21.80	0.00	0.00	0.00	0.00	0.00
	6H	20.76	21.43	21.23	21.87	22.34	0.00	0.00	0.00	0.00	0.00
	8H	20.92	21.53	21.39	21.98	22.45	0.00	0.00	0.00	0.00	0.00
	12H	20.96	21.51	21.45	21.99	22.46	0.00	0.00	0.00	0.00	0.00
8H	4H	20.02	20.64	20.49	21.09	21.56	0.00	0.00	0.00	0.00	0.00
	6H	20.60	21.10	21.11	21.60	22.08	0.00	0.00	0.00	0.00	0.00
	8H	20.75	21.20	21.27	21.72	22.21	0.00	0.00	0.00	0.00	0.00
	12H	20.81	21.20	21.32	21.70	22.27	0.00	0.00	0.00	0.00	0.00
12H	4H	19.97	20.52	20.46	21.00	21.47	0.00	0.00	0.00	0.00	0.00
	6H	20.54	20.99	21.06	21.51	22.00	0.00	0.00	0.00	0.00	0.00
	8H	20.71	21.10	21.22	21.60	22.17	0.00	0.00	0.00	0.00	0.00