

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: P1055144

Luminaire Tested: S122R3DR-S1005D830-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055144
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-3)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122R3DR-S1005D830-X4F0-XX-UDD-F-S
Description: DEFINE 2, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

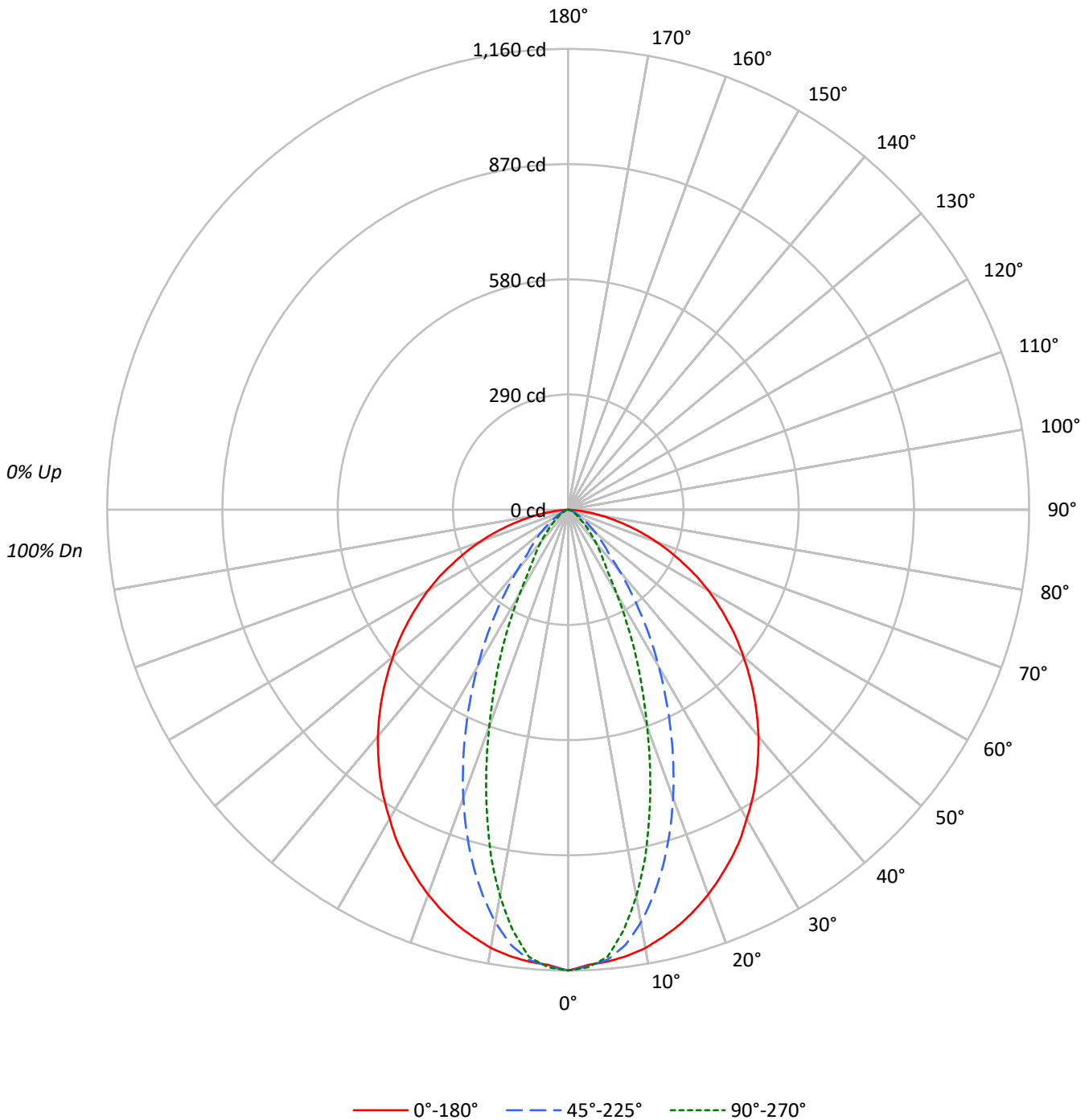
Lumens per Lamp: N/A
Luminaire Lumens: 1329.3 lumens
Efficiency: N/A
Efficacy: 31.7 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.64 / 0.81
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 41.9
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: P1055144

CATALOG NUMBER: S122R3DR-S1005D830-X4F0-XX-UDD-F-S

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	94	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	83	78	95	88	82	77	85	80	76	82	78	74	80	76	73	71
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64
5	85	75	67	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58
6	80	69	62	56	78	68	61	56	66	60	56	65	59	55	63	59	55	53
7	75	64	57	52	74	63	56	51	62	56	51	60	55	51	59	54	50	49
8	71	59	52	47	69	59	52	47	58	51	47	56	51	47	55	50	47	45
9	67	56	49	44	66	55	48	44	54	48	44	53	47	43	52	47	43	42
10	63	52	45	41	62	52	45	41	51	45	41	50	44	40	49	44	40	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	21975	21975	21975
5°	21709	21628	21492
10°	21549	20292	19005
15°	21219	18151	15503
20°	20779	15563	11694
25°	20267	12748	8349
30°	19654	9952	5318
35°	19070	7299	3550
40°	18423	4922	2671
45°	17710	3467	1905
50°	16968	2641	1341
55°	16245	1830	988
60°	15460	1239	807
65°	14337	892	637
70°	13073	709	554
75°	11339	622	417
80°	8990	469	469
85°	4935	609	304

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 17710 cd/sqm



TEST NUMBER: P1055144

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.0	8.0
10°-20°	260.3	19.6
20°-30°	297.4	22.4
30°-40°	252.2	19.0
40°-50°	188.2	14.2
50°-60°	121.6	9.1
60°-70°	67.8	5.1
70°-80°	29.8	2.2
80°-90°	6.1	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°	663.7	49.9
0°-40°	915.9	68.9
0°-60°	1225.6	92.2
0°-90°	1329.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1329.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1160	1160	1160	1160	1160	
5°	1142	1156	1137	1126	1130	108
15°	1082	1055	925	827	790	305
25°	970	856	610	446	399	446
35°	824	621	316	172	154	515
45°	661	392	129	84	71	510
55°	492	186	55	34	30	440
65°	320	68	20	16	14	318
75°	155	14	8	7	6	165
85°	23	1	3	1	1	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1159.9	1159.9	1159.9	1159.9	1159.9
2.5°	1147.1	1164.2	1150.0	1150.0	1152.8
5°	1141.5	1155.7	1137.2	1125.8	1130.1
7.5°	1132.9	1142.9	1104.5	1070.4	1067.5
10°	1120.1	1124.4	1054.8	1002.2	987.9
12.5°	1101.7	1091.7	993.6	919.7	895.5
15°	1081.8	1054.8	925.4	827.3	790.4
17.5°	1057.6	1009.3	850.1	730.6	685.2
20°	1030.6	962.4	771.9	629.7	580.0
22.5°	1000.7	909.8	690.8	534.5	484.7
25°	969.5	855.7	609.8	446.4	399.4
27.5°	936.8	798.9	530.2	366.7	315.6
30°	898.4	740.6	454.9	290.0	243.1
32.5°	862.8	679.5	385.2	224.6	184.8
35°	824.5	621.2	315.6	172.0	153.5
37.5°	784.7	562.9	254.4	145.0	129.4
40°	744.9	504.6	199.0	122.2	108.0
42.5°	703.6	447.8	153.5	102.3	88.1
45°	661.0	392.3	129.4	83.9	71.1
47.5°	618.4	336.9	108.0	66.8	56.9
50°	575.7	284.3	89.6	52.6	45.5
52.5°	534.5	234.5	71.1	42.6	37.0
55°	491.8	186.2	55.4	34.1	29.9
57.5°	449.2	145.0	42.6	28.4	25.6
60°	408.0	109.5	32.7	22.7	21.3
62.5°	365.3	88.1	25.6	18.5	17.1
65°	319.8	68.2	19.9	15.6	14.2
67.5°	278.6	49.8	15.6	12.8	11.4
70°	236.0	34.1	12.8	11.4	10.0
72.5°	194.7	21.3	10.0	8.5	8.5
75°	154.9	14.2	8.5	7.1	5.7
77.5°	118.0	8.5	5.7	5.7	4.3
80°	82.4	5.7	4.3	4.3	4.3
82.5°	51.2	4.3	2.8	2.8	2.8
85°	22.7	1.4	2.8	1.4	1.4
87.5°	4.3	1.4	1.4	1.4	1.4
90°	0.0	0.0	0.0	0.0	0.0



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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	18.99	20.31	19.35	20.62	20.93	5.29	6.61	5.66	6.92	7.24
	3H	21.46	22.63	21.84	22.96	23.32	6.15	7.32	6.53	7.65	8.01
	4H	22.41	23.50	22.82	23.86	24.24	6.42	7.51	6.82	7.86	8.25
	6H	23.10	24.10	23.51	24.47	24.87	6.62	7.62	7.03	7.99	8.38
	8H	23.30	24.25	23.73	24.64	25.04	6.69	7.64	7.12	8.03	8.44
	12H	23.38	24.29	23.81	24.67	25.10	6.71	7.62	7.14	8.00	8.43
4H	2H	18.77	19.86	19.18	20.22	20.60	5.86	6.96	6.27	7.31	7.69
	3H	21.26	22.15	21.67	22.56	22.96	6.90	7.80	7.31	8.20	8.60
	4H	22.20	23.00	22.63	23.42	23.86	7.27	8.07	7.70	8.49	8.93
	6H	22.95	23.64	23.42	24.09	24.56	7.57	8.26	8.03	8.70	9.17
	8H	23.20	23.84	23.67	24.29	24.76	7.66	8.31	8.13	8.75	9.22
	12H	23.33	23.89	23.81	24.38	24.85	7.70	8.27	8.19	8.76	9.23
8H	4H	22.07	22.71	22.54	23.16	23.63	7.64	8.28	8.11	8.73	9.20
	6H	22.81	23.33	23.31	23.83	24.31	8.01	8.53	8.51	9.03	9.51
	8H	23.05	23.52	23.57	24.04	24.53	8.14	8.61	8.66	9.13	9.62
	12H	23.20	23.61	23.72	24.11	24.68	8.22	8.63	8.74	9.13	9.70
12H	4H	22.02	22.59	22.51	23.07	23.55	7.76	8.33	8.25	8.81	9.29
	6H	22.74	23.22	23.27	23.73	24.22	8.12	8.60	8.65	9.11	9.60
	8H	23.01	23.42	23.52	23.92	24.49	8.30	8.71	8.81	9.21	9.78