

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: P1055268

Luminaire Tested: S122R3DR-S865D930-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055268
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-1)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122R3DR-S865D930-X4F0-XX-UDD-F-W
Description: DEFINE 2, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

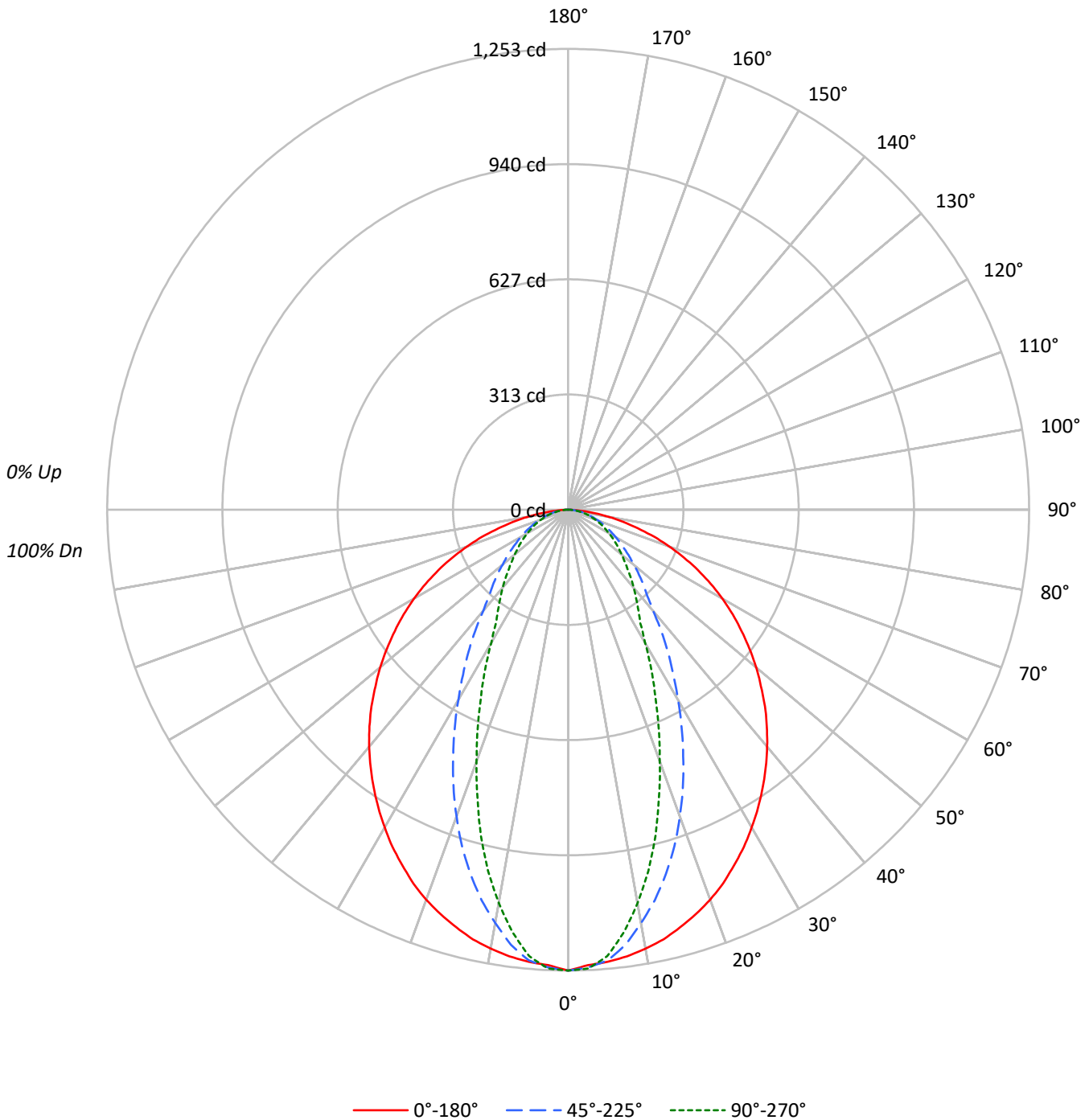
Lumens per Lamp: N/A
Luminaire Lumens: 1895.3 lumens
Efficiency: N/A
Efficacy: 54.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.71 / 0.9
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

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	110	106	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89	87
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66
4	87	76	69	63	85	75	68	62	73	66	61	71	65	61	68	64	60	58
5	81	69	61	55	79	68	61	55	66	60	55	64	59	54	63	58	54	52
6	75	63	55	50	74	63	55	49	61	54	49	59	53	49	58	52	48	46
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38
9	62	50	43	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35
10	59	47	39	35	58	46	39	34	45	39	34	44	38	34	43	38	34	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	23741	23741	23741
5°	23472	23392	23174
10°	23320	21951	20902
15°	23056	20118	17980
20°	22751	17892	14682
25°	22297	15463	11717
30°	21820	13065	9144
35°	21325	10928	7681
40°	20807	8861	6841
45°	20267	7749	6120
50°	19671	6856	5588
55°	18999	6193	5192
60°	18340	5638	4843
65°	17470	5164	4555
70°	16192	4819	4293
75°	14340	4370	4063
80°	12231	4113	3775
85°	8434	3652	3413

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 20267 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.8	6.1
10°-20°	289.9	15.3
20°-30°	357.2	18.8
30°-40°	342.7	18.1
40°-50°	295.6	15.6
50°-60°	229.3	12.1
60°-70°	157.0	8.3
70°-80°	85.3	4.5
80°-90°	23.4	1.2
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°	762.0	40.2
0°-40°	1104.7	58.3
0°-60°	1629.6	86.0
0°-90°	1895.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1895.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1253	1253	1253	1253	1253	
5°	1234	1252	1230	1214	1218	117
15°	1176	1140	1026	942	917	332
25°	1067	952	740	604	560	492
35°	922	731	472	352	332	577
45°	756	509	289	239	228	583
55°	575	306	188	162	157	515
65°	390	167	115	105	102	385
75°	196	76	60	57	56	210
85°	39	19	17	17	16	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1253.1	1253.1	1253.1	1253.1	1253.1
2.5°	1239.4	1260.4	1245.7	1245.7	1248.9
5°	1234.2	1252.0	1230.0	1214.3	1218.5
7.5°	1224.8	1237.3	1193.3	1159.8	1158.8
10°	1212.2	1213.2	1141.0	1097.0	1086.5
12.5°	1196.5	1179.7	1087.5	1021.5	1005.8
15°	1175.5	1139.9	1025.7	941.9	916.7
17.5°	1153.5	1099.0	959.7	854.9	820.4
20°	1128.4	1049.8	887.4	768.0	728.2
22.5°	1100.1	1002.7	815.1	684.2	642.2
25°	1066.6	952.4	739.7	603.5	560.5
27.5°	1034.1	901.0	667.4	532.2	488.2
30°	997.4	845.5	597.2	464.1	418.0
32.5°	960.8	788.9	532.2	399.2	364.6
35°	922.0	731.3	472.5	352.0	332.1
37.5°	882.2	674.7	415.9	320.6	302.8
40°	841.3	618.1	358.3	290.2	276.6
42.5°	799.4	562.6	318.5	265.1	252.5
45°	756.4	509.2	289.2	238.9	228.4
47.5°	710.3	455.8	260.9	216.9	207.4
50°	667.4	404.4	232.6	197.0	189.6
52.5°	621.3	354.1	209.5	179.2	172.9
55°	575.2	305.9	187.5	162.4	157.2
57.5°	530.1	259.8	166.6	146.7	142.5
60°	484.0	223.2	148.8	132.0	127.8
62.5°	436.9	193.8	132.0	118.4	114.2
65°	389.7	166.6	115.2	104.8	101.6
67.5°	340.5	140.4	100.6	92.2	90.1
70°	292.3	117.3	87.0	79.6	77.5
72.5°	245.2	95.3	73.3	68.1	66.0
75°	195.9	76.5	59.7	56.6	55.5
77.5°	153.0	59.7	48.2	46.1	45.1
80°	112.1	44.0	37.7	35.6	34.6
82.5°	74.4	30.4	27.2	26.2	25.1
85°	38.8	18.9	16.8	16.8	15.7
87.5°	12.6	8.4	8.4	8.4	7.3
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	20.61	22.08	20.98	22.39	22.71	15.42	16.89	15.78	17.20	17.52
	3H	22.94	24.26	23.32	24.59	24.95	17.07	18.38	17.44	18.71	19.07
	4H	23.84	25.07	24.24	25.42	25.80	17.70	18.94	18.10	19.28	19.66
	6H	24.50	25.64	24.91	26.01	26.40	18.20	19.34	18.61	19.70	20.10
	8H	24.71	25.79	25.14	26.18	26.58	18.36	19.45	18.79	19.84	20.24
	12H	24.82	25.86	25.25	26.24	26.67	18.48	19.52	18.91	19.90	20.33
4H	2H	20.63	21.86	21.03	22.21	22.59	16.13	17.37	16.53	17.72	18.10
	3H	23.04	24.07	23.45	24.47	24.87	17.98	19.01	18.39	19.41	19.81
	4H	23.97	24.89	24.40	25.31	25.75	18.73	19.65	19.16	20.07	20.51
	6H	24.75	25.55	25.21	25.99	26.45	19.34	20.15	19.80	20.59	21.05
	8H	25.02	25.77	25.48	26.21	26.68	19.56	20.31	20.02	20.75	21.22
	12H	25.20	25.86	25.68	26.34	26.82	19.72	20.39	20.20	20.87	21.34
8H	4H	23.96	24.71	24.43	25.16	25.63	19.11	19.86	19.57	20.30	20.77
	6H	24.77	25.39	25.27	25.88	26.36	19.85	20.46	20.34	20.96	21.43
	8H	25.07	25.63	25.59	26.14	26.63	20.14	20.69	20.66	21.21	21.69
	12H	25.30	25.79	25.81	26.29	26.85	20.38	20.87	20.90	21.37	21.93
12H	4H	23.94	24.61	24.43	25.09	25.56	19.16	19.83	19.65	20.31	20.78
	6H	24.75	25.30	25.26	25.81	26.30	19.93	20.49	20.45	21.00	21.49
	8H	25.08	25.57	25.59	26.06	26.63	20.29	20.78	20.80	21.27	21.83