

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: P1055271

Luminaire Tested: S122R3DR-S865D935-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055271
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-S865D935-X4F0-XX-UDD-F-W
Description: DEFINE 2, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

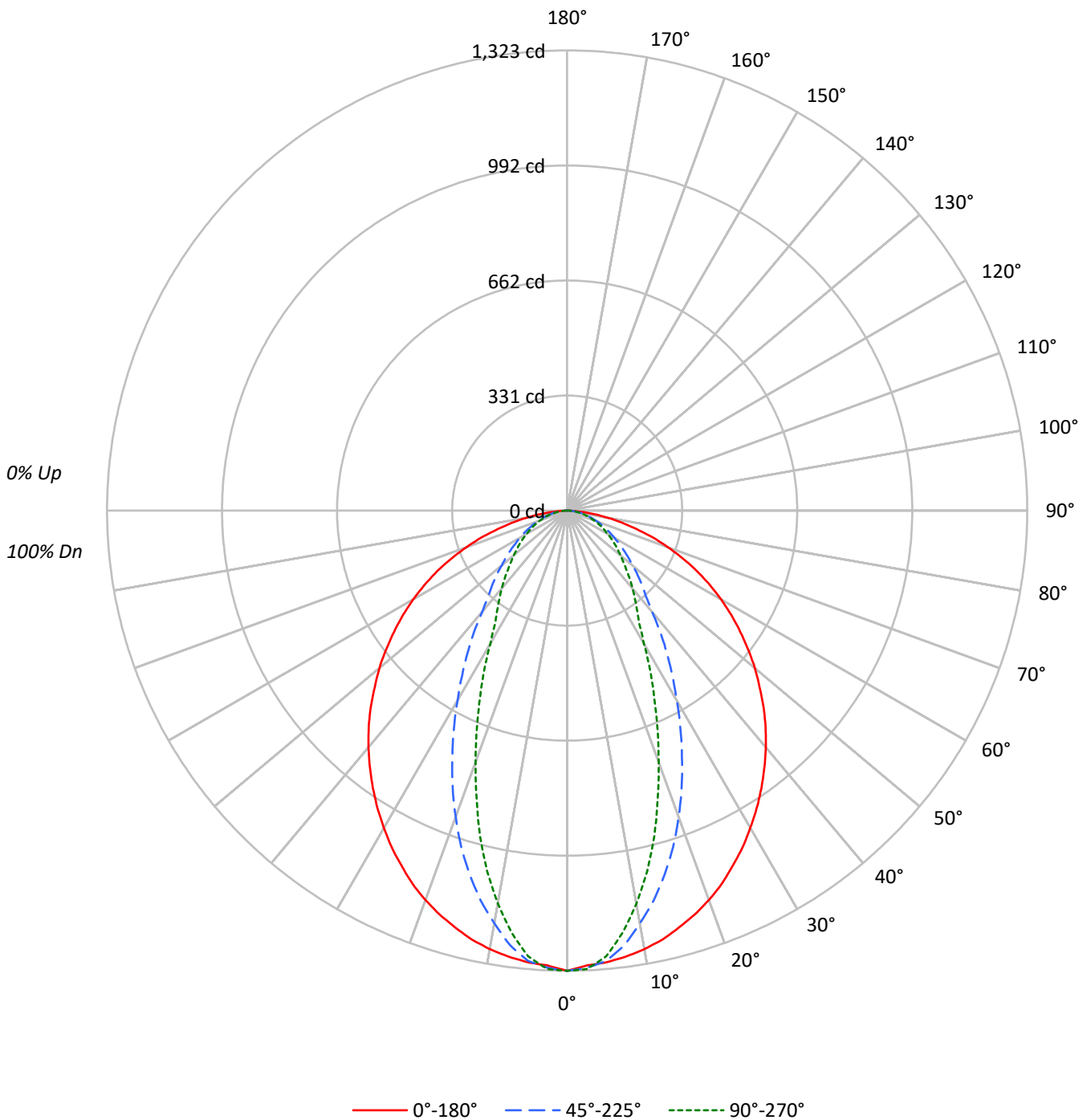
Lumens per Lamp: N/A
Luminaire Lumens: 2001.6 lumens
Efficiency: N/A
Efficacy: 57.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.71 / 0.9
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 34.7
Input Voltage (V): 120
Input Current (A_{in}): 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°	25071	25071	25071
5°	24788	24705	24473
10°	24627	23180	22074
15°	24349	21246	18988
20°	24025	18896	15504
25°	23547	16328	12373
30°	23043	13798	9659
35°	22520	11541	8111
40°	21974	9359	7224
45°	21403	8183	6463
50°	20774	7239	5904
55°	20063	6543	5483
60°	19370	5953	5115
65°	18452	5456	4810
70°	17100	5085	4537
75°	15145	4619	4290
80°	12918	4342	3982
85°	8891	3848	3608

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 21403 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.3	6.1
10°-20°	306.2	15.3
20°-30°	377.3	18.8
30°-40°	361.9	18.1
40°-50°	312.2	15.6
50°-60°	242.2	12.1
60°-70°	165.8	8.3
70°-80°	90.0	4.5
80°-90°	24.7	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°	804.7	40.2
0°-40°	1166.6	58.3
0°-60°	1721.0	86.0
0°-90°	2001.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2001.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1323	1323	1323	1323	1323	
5°	1303	1322	1299	1282	1287	124
15°	1241	1204	1083	995	968	350
25°	1126	1006	781	637	592	519
35°	974	772	499	372	351	609
45°	799	538	305	252	241	616
55°	607	323	198	172	166	544
65°	412	176	122	111	107	406
75°	207	81	63	60	59	222
85°	41	20	18	18	17	52
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1323.3	1323.3	1323.3	1323.3	1323.3
2.5°	1308.9	1331.0	1315.6	1315.6	1318.9
5°	1303.4	1322.2	1299.0	1282.4	1286.8
7.5°	1293.4	1306.7	1260.2	1224.8	1223.7
10°	1280.1	1281.3	1204.9	1158.4	1147.4
12.5°	1263.6	1245.8	1148.5	1078.8	1062.2
15°	1241.4	1203.8	1083.2	994.7	968.1
17.5°	1218.2	1160.7	1013.5	902.9	866.3
20°	1191.6	1108.7	937.2	811.0	769.0
22.5°	1161.8	1058.9	860.8	722.5	678.2
25°	1126.4	1005.8	781.1	637.3	591.9
27.5°	1092.1	951.5	704.8	562.1	515.6
30°	1053.3	892.9	630.7	490.2	441.5
32.5°	1014.6	833.1	562.1	421.6	385.0
35°	973.7	772.3	499.0	371.8	350.7
37.5°	931.6	712.5	439.3	338.6	319.8
40°	888.5	652.8	378.4	306.5	292.1
42.5°	844.2	594.2	336.4	279.9	266.7
45°	798.8	537.7	305.4	252.3	241.2
47.5°	750.2	481.3	275.5	229.0	219.1
50°	704.8	427.1	245.6	208.0	200.3
52.5°	656.1	374.0	221.3	189.2	182.6
55°	607.4	323.1	198.1	171.5	166.0
57.5°	559.9	274.4	175.9	154.9	150.5
60°	511.2	235.7	157.1	139.4	135.0
62.5°	461.4	204.7	139.4	125.0	120.6
65°	411.6	175.9	121.7	110.6	107.3
67.5°	359.6	148.3	106.2	97.4	95.2
70°	308.7	123.9	91.8	84.1	81.9
72.5°	258.9	100.7	77.5	71.9	69.7
75°	206.9	80.8	63.1	59.7	58.6
77.5°	161.5	63.1	50.9	48.7	47.6
80°	118.4	46.5	39.8	37.6	36.5
82.5°	78.6	32.1	28.8	27.7	26.6
85°	40.9	19.9	17.7	17.7	16.6
87.5°	13.3	8.9	8.9	8.9	7.7
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	20.80	22.27	21.17	22.58	22.90	15.61	17.08	15.97	17.39	17.70
	3H	23.13	24.45	23.51	24.78	25.14	17.26	18.57	17.63	18.90	19.26
	4H	24.03	25.26	24.43	25.61	25.99	17.89	19.12	18.29	19.47	19.85
	6H	24.69	25.83	25.10	26.20	26.59	18.38	19.52	18.80	19.89	20.28
	8H	24.90	25.98	25.33	26.37	26.77	18.55	19.64	18.98	20.03	20.43
	12H	25.01	26.05	25.44	26.43	26.86	18.67	19.71	19.10	20.09	20.52
4H	2H	20.82	22.05	21.22	22.40	22.78	16.32	17.56	16.72	17.91	18.29
	3H	23.23	24.26	23.64	24.66	25.06	18.17	19.20	18.58	19.60	20.00
	4H	24.16	25.08	24.59	25.50	25.94	18.92	19.84	19.35	20.26	20.70
	6H	24.94	25.74	25.40	26.18	26.64	19.53	20.34	19.99	20.78	21.24
	8H	25.21	25.96	25.67	26.40	26.87	19.75	20.50	20.21	20.94	21.41
	12H	25.39	26.05	25.87	26.53	27.01	19.91	20.58	20.39	21.06	21.53
8H	4H	24.15	24.90	24.62	25.35	25.82	19.30	20.05	19.76	20.49	20.96
	6H	24.96	25.58	25.46	26.07	26.55	20.04	20.65	20.53	21.15	21.62
	8H	25.26	25.82	25.78	26.33	26.82	20.33	20.88	20.85	21.40	21.88
	12H	25.49	25.98	26.00	26.48	27.04	20.58	21.06	21.09	21.56	22.12
12H	4H	24.13	24.80	24.62	25.28	25.75	19.35	20.02	19.84	20.50	20.97
	6H	24.94	25.49	25.45	26.00	26.49	20.12	20.68	20.64	21.19	21.68
	8H	25.27	25.76	25.78	26.25	26.82	20.48	20.97	20.99	21.46	22.03