

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: P1055254

Luminaire Tested: S122R3DR-S865D835-X4F0-XX-UDD-FLL-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055254
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-2)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122R3DR-S865D835-X4F0-XX-UDD-FLL-B
Description: DEFINE 2, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

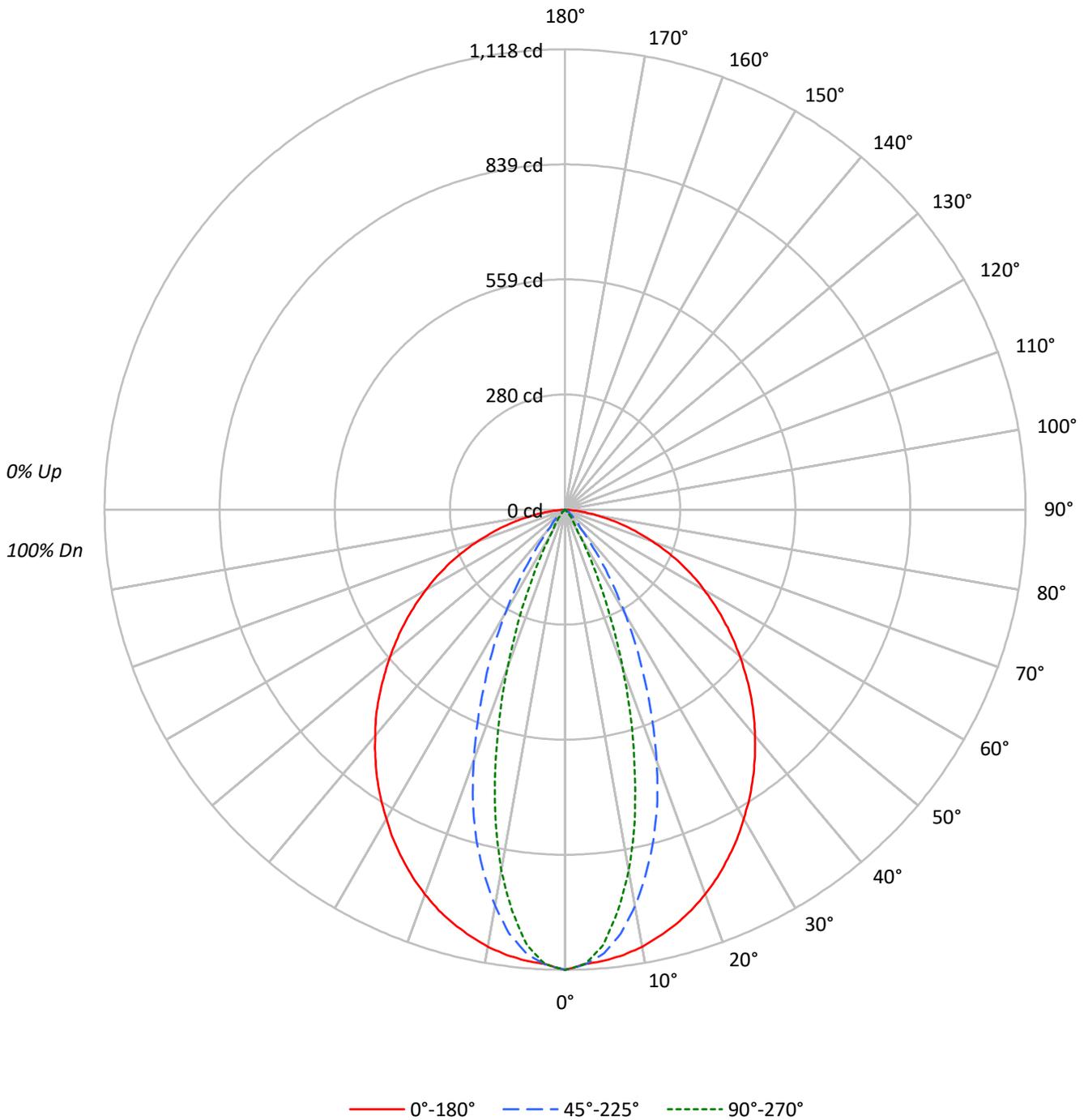
Lumens per Lamp: N/A
Luminaire Lumens: 1017.2 lumens
Efficiency: N/A
Efficacy: 29.3 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.56 / 0.7
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

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									
RC	80									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			100																
1	112	109	106	103	110	106	104	101	102	100	98	99	97	95	95	94	92	91			91																
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	81			81																
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74			74																
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67			67																
5	87	77	70	65	85	76	70	65	74	69	64	72	68	64	71	66	63	61			61																
6	82	72	65	60	80	71	64	59	69	63	59	68	62	59	66	62	58	56			56																
7	77	67	60	55	76	66	59	55	65	59	55	63	58	54	62	57	54	52			52																
8	73	62	56	51	72	62	55	51	61	55	51	60	54	50	59	54	50	49			49																
9	70	59	52	48	68	58	52	47	57	51	47	56	51	47	55	50	47	45			45																
10	66	55	49	45	65	55	49	44	54	48	44	53	48	44	52	47	44	43			43																

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	21181	21181	21181
5°	20920	20578	20188
10°	20743	18813	17133
15°	20442	16284	12830
20°	20053	13085	8214
25°	19556	9591	4219
30°	18976	6270	1378
35°	18399	3479	803
40°	17735	1397	445
45°	17078	930	171
50°	16326	531	77
55°	15577	254	43
60°	14755	99	0
65°	13884	58	0
70°	12458	72	0
75°	10724	95	0
80°	8128	0	0
85°	3348	283	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 17078 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.2	9.9
10°-20°	232.9	22.9
20°-30°	236.4	23.2
30°-40°	177.4	17.4
40°-50°	124.2	12.2
50°-60°	76.0	7.5
60°-70°	45.3	4.5
70°-80°	20.9	2.1
80°-90°	3.8	0.4
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°	569.6	56.0
0°-40°	747.0	73.4
0°-60°	947.2	93.1
0°-90°	1017.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1017.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1118	1118	1118	1118	1118	
5°	1100	1110	1082	1062	1062	104
15°	1042	986	830	703	654	294
25°	936	771	459	262	202	431
35°	796	518	150	45	35	497
45°	637	274	35	10	6	491
55°	472	84	8	3	1	422
65°	310	24	1	1	0	305
75°	146	3	1	1	0	156
85°	15	0	1	1	0	26
90°	0	0	0	0	0	



TEST NUMBER: P105254

CATALOG NUMBER: S122R3DR-S865D835-X4F0-XX-UDD-FLL-B

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1118.0	<i>1118.0</i>	1118.0	1118.0	1118.0
2.5°	<i>1105.2</i>	<i>1121.9</i>	<i>1106.4</i>	<i>1103.9</i>	<i>1105.2</i>
5°	1100.0	<i>1110.3</i>	1082.0	1061.5	1061.5
7.5°	1091.0	<i>1091.0</i>	1038.3	995.9	983.1
10°	1078.2	<i>1064.0</i>	977.9	909.8	890.6
12.5°	1061.5	<i>1028.1</i>	907.3	810.9	780.0
15°	1042.2	<i>985.7</i>	830.2	702.9	654.1
17.5°	1020.3	<i>938.1</i>	744.1	586.0	529.4
20°	994.6	<i>886.7</i>	649.0	466.5	407.4
22.5°	966.4	<i>830.2</i>	552.6	359.8	296.9
25°	935.5	<i>771.0</i>	458.8	262.2	201.8
27.5°	903.4	<i>709.4</i>	372.7	179.9	123.4
30°	867.4	<i>645.1</i>	286.6	106.7	63.0
32.5°	832.7	<i>583.4</i>	214.6	57.8	46.3
35°	795.5	<i>517.9</i>	150.4	45.0	34.7
37.5°	756.9	<i>456.2</i>	92.5	33.4	25.7
40°	717.1	<i>393.2</i>	56.5	24.4	18.0
42.5°	678.5	<i>334.1</i>	45.0	16.7	11.6
45°	637.4	<i>273.7</i>	34.7	10.3	6.4
47.5°	595.0	<i>218.5</i>	25.7	6.4	3.9
50°	553.9	<i>169.6</i>	18.0	3.9	2.6
52.5°	512.7	<i>124.7</i>	11.6	2.6	1.3
55°	471.6	<i>83.5</i>	7.7	2.6	1.3
57.5°	430.5	<i>59.1</i>	5.1	1.3	1.3
60°	389.4	<i>46.3</i>	2.6	1.3	0.0
62.5°	350.8	<i>36.0</i>	2.6	1.3	1.3
65°	309.7	<i>24.4</i>	1.3	1.3	0.0
67.5°	266.0	<i>15.4</i>	1.3	1.3	0.0
70°	224.9	<i>9.0</i>	1.3	1.3	0.0
72.5°	185.1	<i>5.1</i>	1.3	1.3	0.0
75°	146.5	<i>2.6</i>	1.3	1.3	0.0
77.5°	109.2	<i>1.3</i>	0.0	1.3	0.0
80°	74.5	<i>0.0</i>	0.0	1.3	0.0
82.5°	43.7	<i>0.0</i>	0.0	1.3	0.0
85°	15.4	<i>0.0</i>	1.3	1.3	0.0
87.5°	0.0	<i>0.0</i>	1.3	1.3	0.0
90°	0.0	<i>0.0</i>	0.0	0.0	0.0

(END OF REPORT)