

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: P1055260

Luminaire Tested: S122R3DR-S865D850-X4F0-XX-UDD-FLL-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055260
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-S865D850-X4F0-XX-UDD-FLL-B
Description: DEFINE 2, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

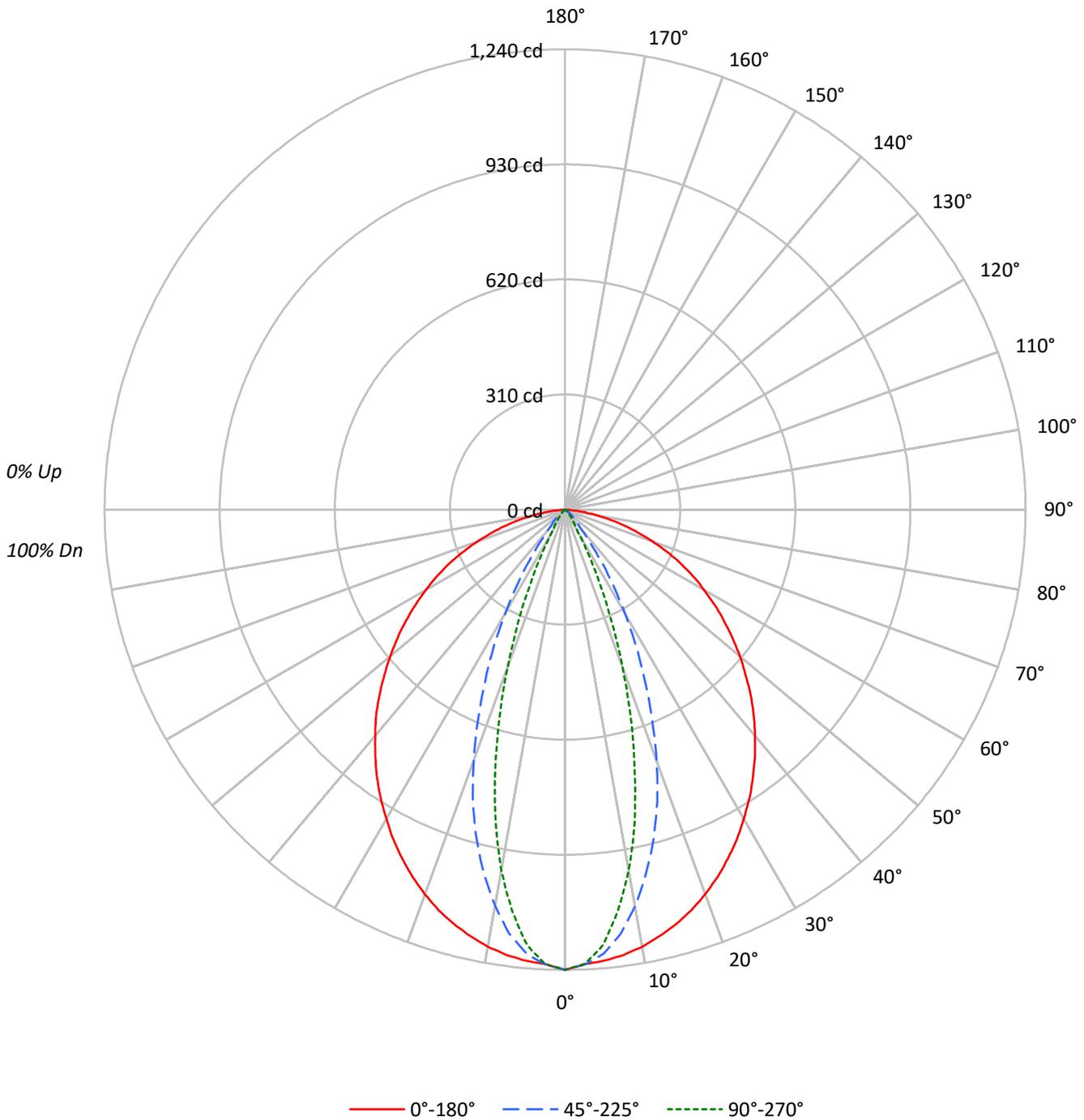
Lumens per Lamp: N/A
Luminaire Lumens: 1128.0 lumens
Efficiency: N/A
Efficacy: 32.5 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.56 / 0.7
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

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					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	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	48	44	43				43

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	23491	23491	23491
5°	23200	22822	22388
10°	23003	20864	19000
15°	22670	18057	14228
20°	22240	14510	9109
25°	21688	10636	4676
30°	21045	6952	1527
35°	20404	3856	890
40°	19667	1551	495
45°	18940	1032	190
50°	18103	589	85
55°	17275	284	46
60°	16362	110	0
65°	15399	63	0
70°	13815	78	0
75°	11895	102	0
80°	9023	0	0
85°	3717	304	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 18940 cd/sqm



TEST NUMBER: P105260

CATALOG NUMBER: S122R3DR-S865D850-X4F0-XX-UDD-FLL-B

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.2	9.9
10°-20°	258.3	22.9
20°-30°	262.2	23.2
30°-40°	196.7	17.4
40°-50°	137.8	12.2
50°-60°	84.3	7.5
60°-70°	50.2	4.5
70°-80°	23.2	2.1
80°-90°	4.2	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°	631.6	56.0
0°-40°	828.4	73.4
0°-60°	1050.5	93.1
0°-90°	1128.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1128.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1240	1240	1240	1240	1240	
5°	1220	1231	1200	1177	1177	116
15°	1156	1093	921	780	725	326
25°	1038	855	509	291	224	478
35°	882	574	167	50	38	551
45°	707	304	38	11	7	545
55°	523	93	9	3	1	468
65°	344	27	1	1	0	338
75°	162	3	1	1	0	173
85°	17	0	1	1	0	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1239.9	1239.9	1239.9	1239.9	1239.9
2.5°	1225.6	1244.2	1227.1	1224.2	1225.6
5°	1219.9	1231.3	1200.0	1177.2	1177.2
7.5°	1209.9	1209.9	1151.5	1104.5	1090.2
10°	1195.7	1180.0	1084.5	1009.0	987.6
12.5°	1177.2	1140.1	1006.2	899.3	865.1
15°	1155.8	1093.1	920.6	779.6	725.4
17.5°	1131.6	1040.4	825.2	649.9	587.2
20°	1103.1	983.4	719.7	517.3	451.8
22.5°	1071.7	920.6	612.8	399.0	329.2
25°	1037.5	855.1	508.8	290.7	223.7
27.5°	1001.9	786.7	413.3	199.5	136.8
30°	962.0	715.4	317.8	118.3	69.8
32.5°	923.5	647.0	238.0	64.1	51.3
35°	882.2	574.3	166.7	49.9	38.5
37.5°	839.4	505.9	102.6	37.1	28.5
40°	795.2	436.1	62.7	27.1	20.0
42.5°	752.5	370.5	49.9	18.5	12.8
45°	706.9	303.6	38.5	11.4	7.1
47.5°	659.8	242.3	28.5	7.1	4.3
50°	614.2	188.1	20.0	4.3	2.9
52.5°	568.6	138.2	12.8	2.9	1.4
55°	523.0	92.6	8.6	2.9	1.4
57.5°	477.4	65.6	5.7	1.4	1.4
60°	431.8	51.3	2.9	1.4	0.0
62.5°	389.1	39.9	2.9	1.4	1.4
65°	343.5	27.1	1.4	1.4	0.0
67.5°	295.0	17.1	1.4	1.4	0.0
70°	249.4	10.0	1.4	1.4	0.0
72.5°	205.2	5.7	1.4	1.4	0.0
75°	162.5	2.9	1.4	1.4	0.0
77.5°	121.1	1.4	0.0	1.4	0.0
80°	82.7	0.0	0.0	1.4	0.0
82.5°	48.5	0.0	0.0	1.4	0.0
85°	17.1	0.0	1.4	1.4	0.0
87.5°	0.0	0.0	1.4	1.4	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)