

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: P1055257

Luminaire Tested: S122R3DR-S865D840-X4F0-XX-UDD-FLL-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055257
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-S865D840-X4F0-XX-UDD-FLL-B
Description: DEFINE 2, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

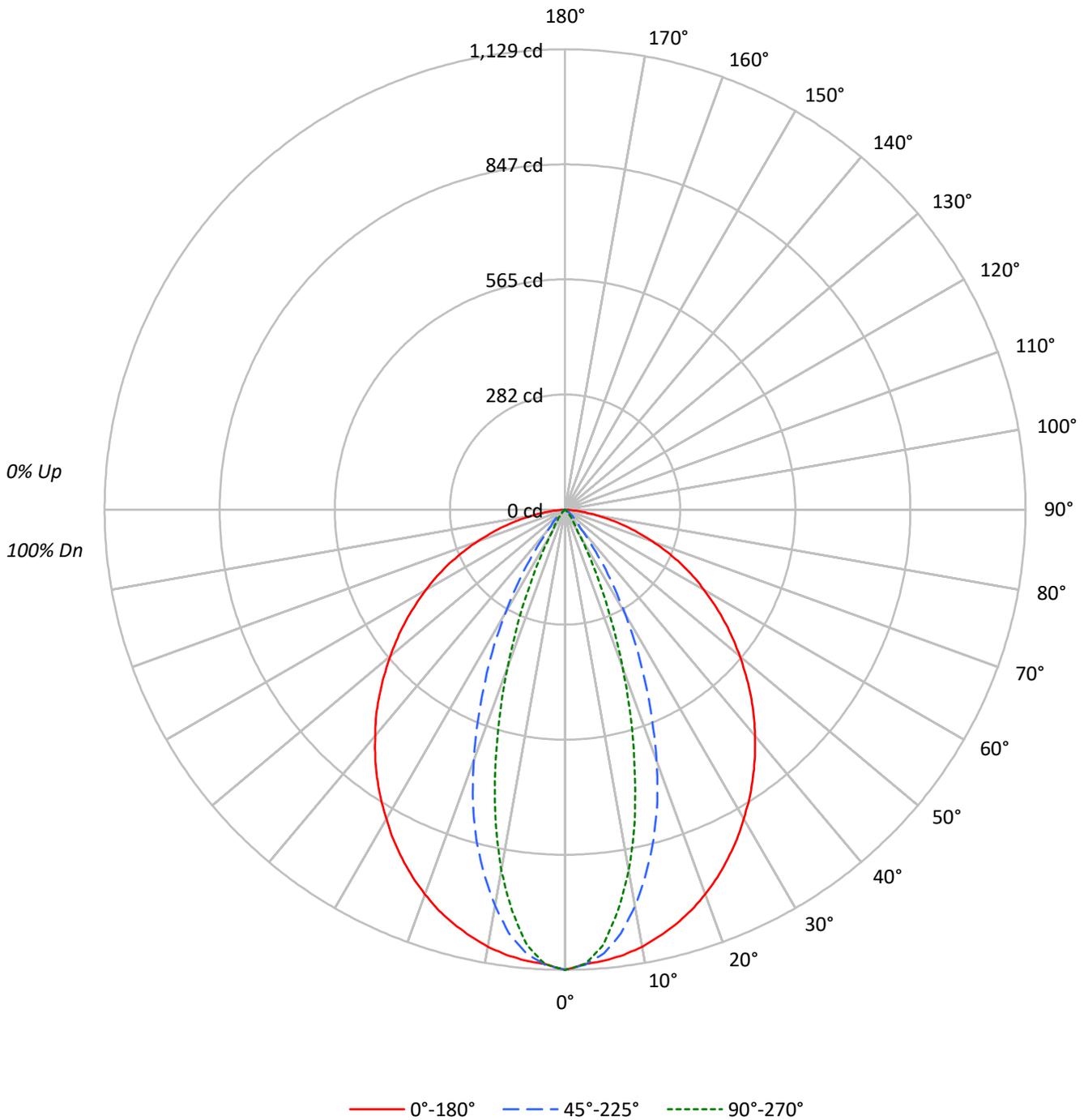
Lumens per Lamp: N/A
Luminaire Lumens: 1027.2 lumens
Efficiency: N/A
Efficacy: 29.6 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.56 / 0.7
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	109	106	103	110	106	104	101	102	100	98	99	97	95	95	94	92	91
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	81
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67
5	87	77	70	65	85	76	70	65	74	69	64	72	68	64	71	66	63	61
6	82	72	65	60	80	71	64	59	69	63	59	68	62	59	66	62	58	56
7	77	67	60	55	76	66	59	55	65	59	55	63	58	54	62	57	54	52
8	73	62	56	51	72	62	55	51	61	55	51	60	54	50	59	54	50	49
9	70	59	52	48	68	58	52	47	57	51	47	56	51	47	55	50	47	45
10	66	55	49	45	65	55	49	44	54	48	44	53	48	44	52	47	44	43

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	21390	21390	21390
5°	21127	20781	20386
10°	20946	19000	17301
15°	20644	16443	12957
20°	20252	13214	8295
25°	19751	9685	4258
30°	19164	6331	1391
35°	18579	3511	810
40°	17908	1412	450
45°	17247	938	174
50°	16485	536	77
55°	15733	258	43
60°	14899	99	0
65°	14023	58	0
70°	12580	72	0
75°	10826	95	0
80°	8216	0	0
85°	3391	283	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 17247 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.2	9.9
10°-20°	235.2	22.9
20°-30°	238.8	23.2
30°-40°	179.2	17.4
40°-50°	125.5	12.2
50°-60°	76.8	7.5
60°-70°	45.7	4.5
70°-80°	21.1	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°	575.2	56.0
0°-40°	754.3	73.4
0°-60°	956.6	93.1
0°-90°	1027.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1027.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1129	1129	1129	1129	1129	
5°	1111	1121	1093	1072	1072	105
15°	1052	995	838	710	661	297
25°	945	779	463	265	204	435
35°	803	523	152	45	35	502
45°	644	276	35	10	6	496
55°	476	84	8	3	1	426
65°	313	25	1	1	0	308
75°	148	3	1	1	0	157
85°	16	0	1	1	0	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1129.0	1129.0	1129.0	1129.0	1129.0
2.5°	1116.1	1132.9	1117.4	1114.8	1116.1
5°	1110.9	1121.3	1092.7	1071.9	1071.9
7.5°	1101.8	1101.8	1048.6	1005.8	992.8
10°	1088.8	1074.5	987.6	918.8	899.3
12.5°	1071.9	1038.2	916.2	818.9	787.7
15°	1052.5	995.4	838.3	709.9	660.6
17.5°	1030.4	947.4	751.4	591.8	534.7
20°	1004.5	895.4	655.4	471.1	411.4
22.5°	975.9	838.3	558.0	363.4	299.8
25°	944.8	778.7	463.3	264.7	203.7
27.5°	912.3	716.4	376.3	181.7	124.6
30°	876.0	651.5	289.4	107.7	63.6
32.5°	840.9	589.2	216.7	58.4	46.7
35°	803.3	523.0	151.8	45.4	35.0
37.5°	764.4	460.7	93.4	33.7	26.0
40°	724.1	397.1	57.1	24.7	18.2
42.5°	685.2	337.4	45.4	16.9	11.7
45°	643.7	276.4	35.0	10.4	6.5
47.5°	600.9	220.6	26.0	6.5	3.9
50°	559.3	171.3	18.2	3.9	2.6
52.5°	517.8	125.9	11.7	2.6	1.3
55°	476.3	84.4	7.8	2.6	1.3
57.5°	434.7	59.7	5.2	1.3	1.3
60°	393.2	46.7	2.6	1.3	0.0
62.5°	354.3	36.3	2.6	1.3	1.3
65°	312.8	24.7	1.3	1.3	0.0
67.5°	268.6	15.6	1.3	1.3	0.0
70°	227.1	9.1	1.3	1.3	0.0
72.5°	186.9	5.2	1.3	1.3	0.0
75°	147.9	2.6	1.3	1.3	0.0
77.5°	110.3	1.3	0.0	1.3	0.0
80°	75.3	0.0	0.0	1.3	0.0
82.5°	44.1	0.0	0.0	1.3	0.0
85°	15.6	0.0	1.3	1.3	0.0
87.5°	0.0	0.0	1.3	1.3	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)