

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: P1055589

Luminaire Tested: S123R3DR-S1165D927-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055589
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-4)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123R3DR-S1165D927-X4F0-XX-UDD-FLL-W
Description: DEFINE 3, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

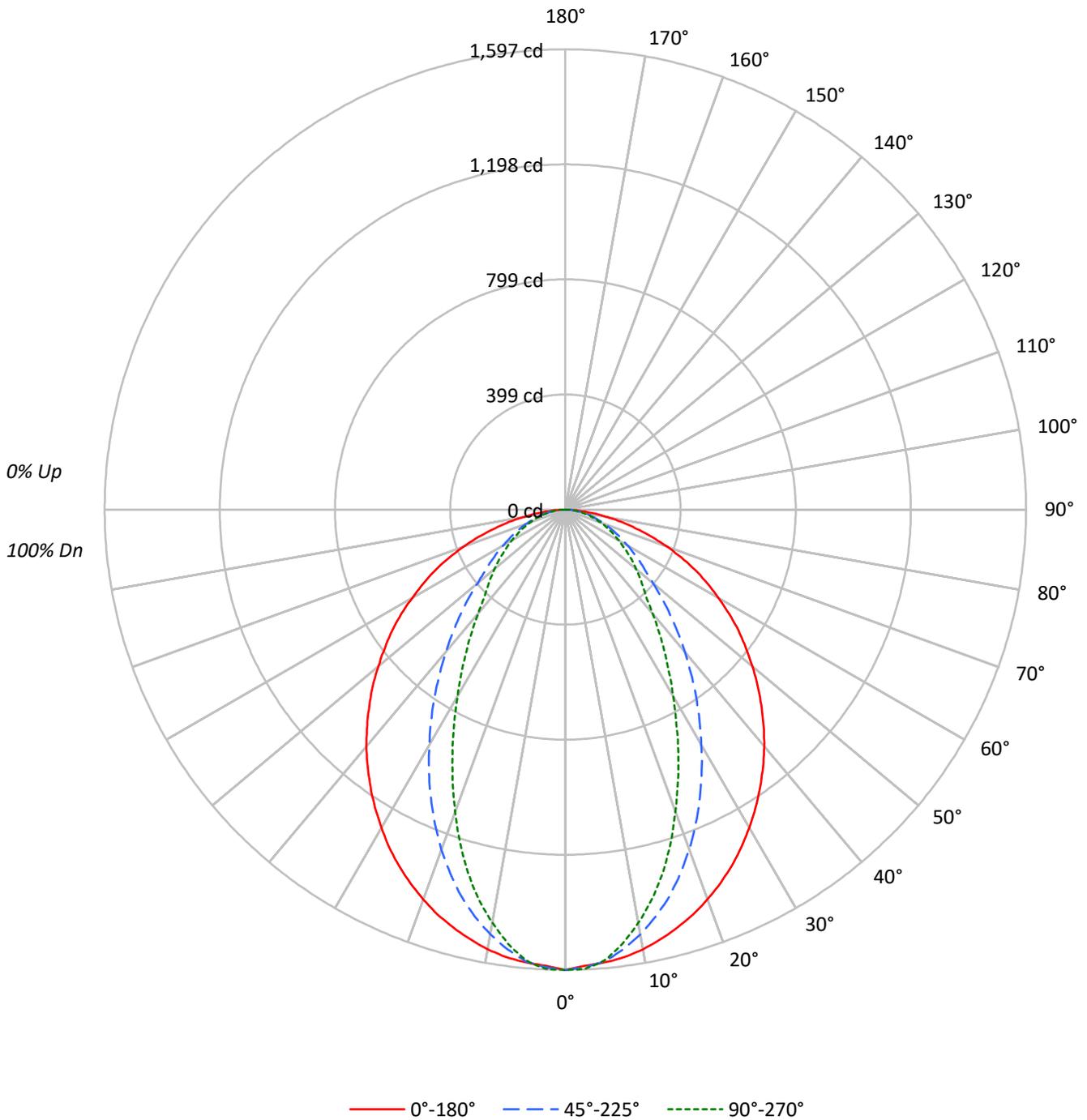
Lumens per Lamp: N/A
Luminaire Lumens: 2801.5 lumens
Efficiency: N/A
Efficacy: 66.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.83 / 1.02
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 41.9
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	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88	86				86
2	101	94	88	83	99	92	87	82	89	84	80	85	82	78	83	79	76	74				74
3	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67	65				65
4	86	75	68	61	84	74	67	61	72	65	60	70	64	59	67	63	59	57				57
5	80	68	60	54	78	67	60	54	65	58	53	63	57	53	62	56	52	50				50
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45				45
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40				40
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	39	37				37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34				34
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31				31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	19259	19259	19259
5°	19086	19043	19000
10°	18971	18327	17830
15°	18745	17358	16284
20°	18470	16111	14317
25°	18150	14669	12317
30°	17747	13122	10412
35°	17320	11605	8793
40°	16886	10136	7389
45°	16379	8738	6518
50°	15866	7441	5983
55°	15395	6630	5524
60°	14750	5992	5158
65°	14144	5489	4841
70°	13184	5055	4547
75°	11799	4677	4286
80°	10123	4312	3978
85°	7110	3970	3804

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 16379 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	148.1	5.3
10°-20°	391.8	14.0
20°-30°	516.1	18.4
30°-40°	523.8	18.7
40°-50°	455.3	16.3
50°-60°	356.7	12.7
60°-70°	242.3	8.7
70°-80°	131.3	4.7
80°-90°	36.2	1.3
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°	1055.9	37.7
0°-40°	1579.7	56.4
0°-60°	2391.7	85.4
0°-90°	2801.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2801.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1597	1597	1597	1597	1597	
5°	1577	1596	1574	1559	1570	150
15°	1502	1480	1391	1323	1305	423
25°	1364	1282	1103	965	926	628
35°	1177	1037	788	638	597	736
45°	961	771	512	396	382	741
55°	732	509	315	269	263	654
65°	496	275	192	172	170	490
75°	253	127	100	93	92	270
85°	51	31	29	26	28	65
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1597.4	1597.4	1597.4	1597.4	1597.4
2.5°	1584.2	1604.5	1589.0	1590.2	1595.0
5°	1577.0	1596.2	1573.5	1559.1	1569.9
7.5°	1566.3	1580.6	1538.8	1516.1	1519.7
10°	1549.6	1554.3	1497.0	1461.2	1456.4
12.5°	1526.9	1518.5	1446.8	1394.2	1385.9
15°	1501.8	1480.3	1390.7	1322.6	1304.6
17.5°	1473.1	1437.3	1325.0	1241.3	1213.8
20°	1439.6	1389.5	1255.7	1149.3	1115.9
22.5°	1403.8	1339.3	1180.4	1054.9	1020.3
25°	1364.4	1281.9	1102.7	965.3	925.9
27.5°	1321.4	1224.6	1023.9	876.9	832.7
30°	1274.8	1164.9	942.6	790.9	747.9
32.5°	1227.0	1101.5	865.0	710.9	669.0
35°	1176.8	1037.0	788.5	638.0	597.4
37.5°	1125.4	971.3	714.4	568.7	530.5
40°	1072.9	904.4	644.0	504.2	469.5
42.5°	1016.7	837.5	575.9	443.2	417.0
45°	960.6	770.6	512.5	395.5	382.3
47.5°	904.4	702.5	452.8	362.0	350.1
50°	845.9	636.8	396.7	330.9	319.0
52.5°	788.5	572.3	350.1	301.1	292.7
55°	732.4	509.0	315.4	268.8	262.8
57.5°	673.8	446.8	280.8	243.7	236.6
60°	611.7	387.1	248.5	217.4	213.9
62.5°	555.5	330.9	219.8	194.7	191.2
65°	495.8	274.8	192.4	172.0	169.7
67.5°	434.9	228.2	167.3	150.5	149.3
70°	374.0	192.4	143.4	130.2	129.0
72.5°	314.2	158.9	120.7	112.3	109.9
75°	253.3	126.6	100.4	93.2	92.0
77.5°	198.3	98.0	80.0	75.3	74.1
80°	145.8	72.9	62.1	58.5	57.3
82.5°	95.6	50.2	44.2	41.8	41.8
85°	51.4	31.1	28.7	26.3	27.5
87.5°	17.9	13.1	13.1	11.9	13.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)