

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: P1055550

Luminaire Tested: S123R3DR-S1000D830-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055550
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-S1000D830-X4F0-XX-UDD-FLL-W
Description: DEFINE 3, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

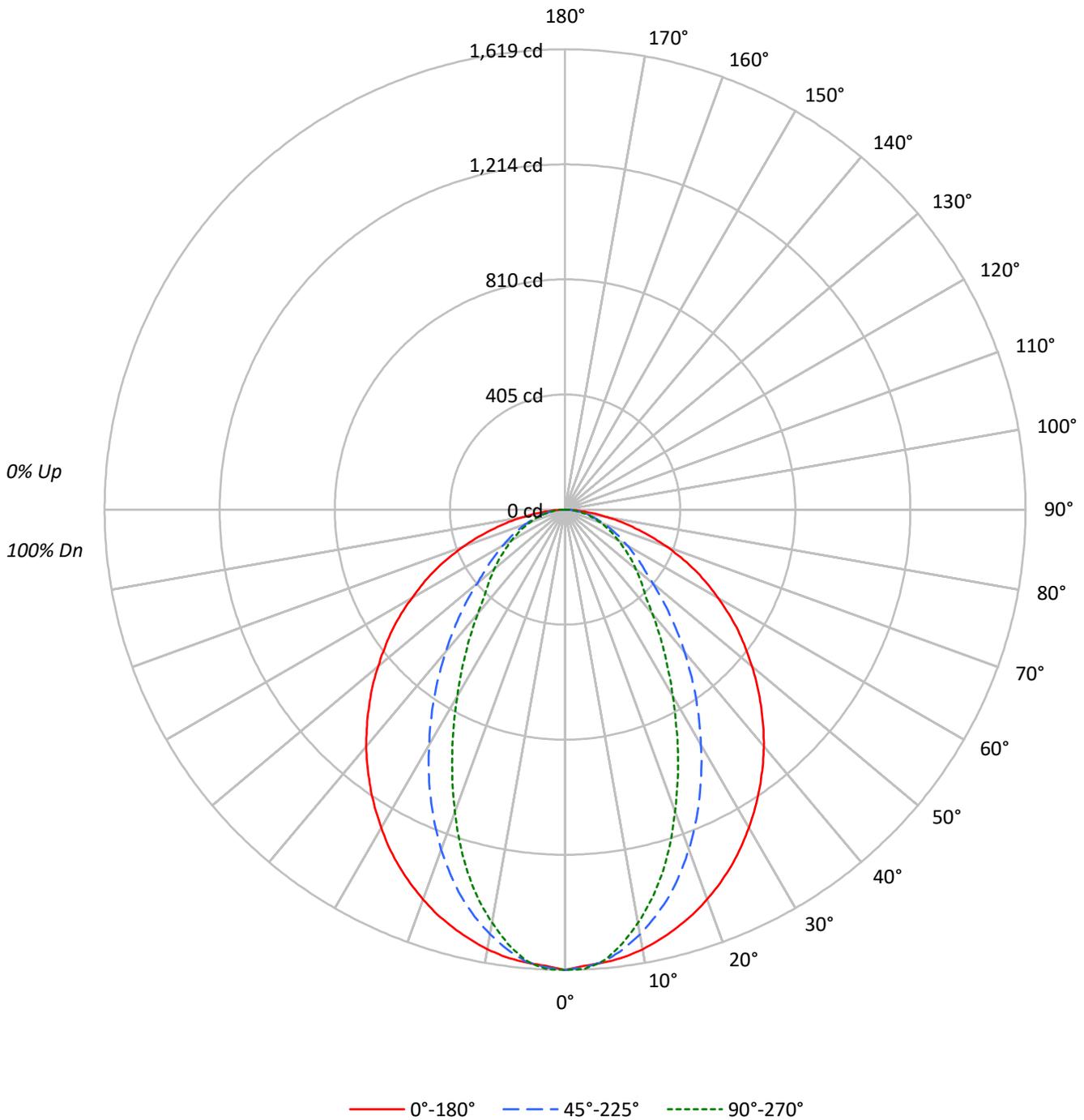
Lumens per Lamp: N/A
Luminaire Lumens: 2840.2 lumens
Efficiency: N/A
Efficacy: 81.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.83 / 1.02
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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°	19524	19524	19524
5°	19349	19306	19262
10°	19233	18580	18076
15°	19003	17598	16510
20°	18726	16333	14515
25°	18400	14872	12487
30°	17992	13305	10555
35°	17560	11766	8913
40°	17119	10276	7492
45°	16604	8859	6609
50°	16084	7542	6066
55°	15607	6722	5602
60°	14952	6074	5228
65°	14341	5563	4907
70°	13363	5122	4611
75°	11962	4737	4346
80°	10262	4374	4034
85°	7207	4025	3859

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 16604 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	150.1	5.3
10°-20°	397.2	14.0
20°-30°	523.2	18.4
30°-40°	531.0	18.7
40°-50°	461.6	16.3
50°-60°	361.6	12.7
60°-70°	245.7	8.7
70°-80°	133.2	4.7
80°-90°	36.7	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°	1070.5	37.7
0°-40°	1601.5	56.4
0°-60°	2424.7	85.4
0°-90°	2840.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2840.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1619	1619	1619	1619	1619	
5°	1599	1618	1595	1581	1592	152
15°	1522	1501	1410	1341	1323	429
25°	1383	1300	1118	979	939	637
35°	1193	1051	799	647	606	746
45°	974	781	520	401	388	752
55°	742	516	320	272	266	663
65°	503	279	195	174	172	496
75°	257	128	102	94	93	274
85°	52	32	29	27	28	66
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1619.4	1619.4	1619.4	1619.4	1619.4
2.5°	1606.1	1626.7	1610.9	1612.1	1617.0
5°	1598.8	1618.2	1595.2	1580.7	1591.6
7.5°	1587.9	1602.5	1560.1	1537.0	1540.7
10°	1571.0	1575.8	1517.7	1481.3	1476.5
12.5°	1547.9	1539.5	1466.8	1413.5	1405.0
15°	1522.5	1500.7	1409.9	1340.8	1322.7
17.5°	1493.4	1457.1	1343.3	1258.5	1230.6
20°	1459.5	1408.7	1273.0	1165.2	1131.3
22.5°	1423.2	1357.8	1196.7	1069.5	1034.4
25°	1383.2	1299.6	1118.0	978.7	938.7
27.5°	1339.6	1241.5	1038.0	889.0	844.2
30°	1292.4	1180.9	955.7	801.8	758.2
32.5°	1243.9	1116.8	876.9	720.7	678.3
35°	1193.1	1051.3	799.4	646.8	605.6
37.5°	1141.0	984.7	724.3	576.5	537.8
40°	1087.7	916.9	652.9	511.1	476.0
42.5°	1030.8	849.1	583.8	449.4	422.7
45°	973.8	781.2	519.6	400.9	387.6
47.5°	916.9	712.2	459.1	367.0	354.9
50°	857.5	645.6	402.1	335.5	323.4
52.5°	799.4	580.2	354.9	305.2	296.8
55°	742.5	516.0	319.8	272.5	266.5
57.5°	683.1	453.0	284.6	247.1	239.8
60°	620.1	392.4	251.9	220.4	216.8
62.5°	563.2	335.5	222.9	197.4	193.8
65°	502.7	278.6	195.0	174.4	172.0
67.5°	440.9	231.3	169.6	152.6	151.4
70°	379.1	195.0	145.3	132.0	130.8
72.5°	318.6	161.1	122.3	113.9	111.4
75°	256.8	128.4	101.7	94.5	93.3
77.5°	201.1	99.3	81.2	76.3	75.1
80°	147.8	73.9	63.0	59.4	58.1
82.5°	96.9	50.9	44.8	42.4	42.4
85°	52.1	31.5	29.1	26.6	27.9
87.5°	18.2	13.3	13.3	12.1	13.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)