

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: P1056008

Luminaire Tested: S124R3DR-S350D830-X4F0-XX-UDD-FLL-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1056008
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-9)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124R3DR-S350D830-X4F0-XX-UDD-FLL-S
Description: DEFINE 4, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

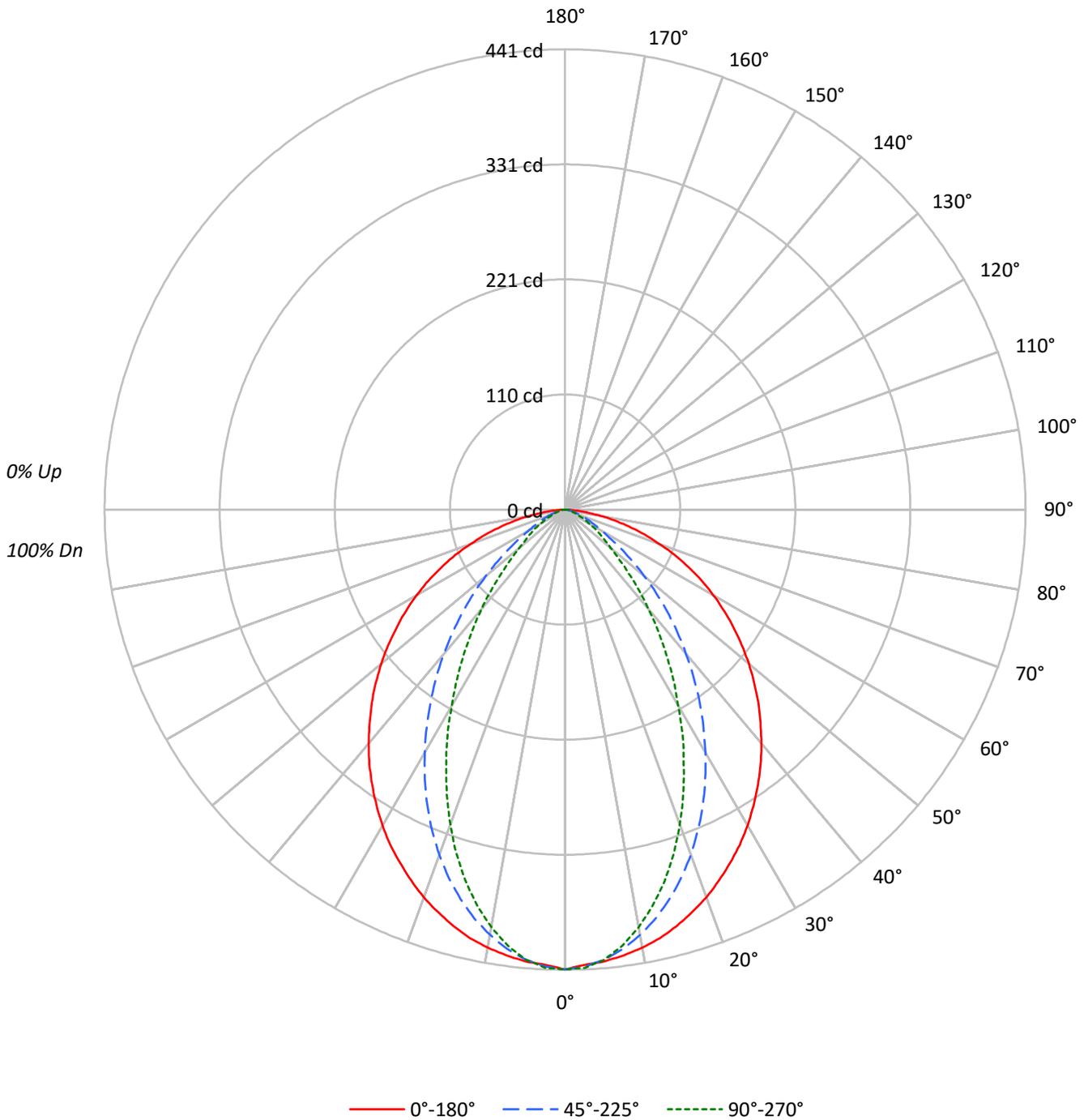
Lumens per Lamp: N/A
Luminaire Lumens: 712.4 lumens
Efficiency: N/A
Efficacy: 56.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.87 / 1.03
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 12.6
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

TEST NUMBER: P1056008

CATALOG NUMBER: S124R3DR-S350D830-X4F0-XX-UDD-FLL-S

Luminous Intensity Polar Plot





TEST NUMBER: P1056008

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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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90	89
2	103	96	91	86	101	94	89	85	91	87	83	88	84	81	85	82	79	78
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68
4	89	78	71	65	86	77	70	65	75	69	64	73	67	63	71	66	62	60
5	82	71	64	58	80	70	63	58	68	62	57	66	61	56	65	60	56	54
6	77	65	57	52	75	64	57	52	63	56	51	61	55	51	60	54	50	48
7	72	60	52	47	70	59	52	47	58	51	46	56	50	46	55	50	46	44
8	67	55	48	42	66	55	47	42	53	47	42	52	46	42	51	46	42	40
9	63	51	44	39	62	51	44	39	50	43	39	49	43	38	48	42	38	37
10	60	48	41	36	59	47	40	36	46	40	36	45	40	35	45	39	35	34

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3896	3896	3896
5°	3856	3841	3841
10°	3826	3716	3646
15°	3781	3538	3372
20°	3721	3312	3022
25°	3646	3046	2625
30°	3568	2743	2211
35°	3475	2422	1820
40°	3376	2079	1435
45°	3272	1729	1072
50°	3159	1360	784
55°	3035	1005	626
60°	2902	697	479
65°	2730	540	351
70°	2471	383	277
75°	2159	266	212
80°	1736	209	188
85°	954	162	162

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3272 cd/sqm



TEST NUMBER: P1056008

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.9	5.7
10°-20°	109.2	15.3
20°-30°	145.7	20.4
30°-40°	146.6	20.6
40°-50°	120.3	16.9
50°-60°	82.2	11.5
60°-70°	45.9	6.4
70°-80°	18.2	2.6
80°-90°	3.4	0.5
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°	295.7	41.5
0°-40°	442.4	62.1
0°-60°	644.8	90.5
0°-90°	712.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	712.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	441	441	441	441	441	
5°	434	439	433	431	433	41
15°	413	409	386	373	368	116
25°	374	355	312	281	269	172
35°	322	288	224	182	169	201
45°	262	214	138	97	86	202
55°	197	138	65	44	41	176
65°	130	66	26	18	17	129
75°	63	17	8	7	6	68
85°	9	2	2	2	2	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	440.6	440.6	440.6	440.6	440.6
2.5°	436.5	441.8	438.1	438.6	439.4
5°	434.5	439.4	432.8	430.8	432.8
7.5°	430.8	434.5	424.6	420.5	421.3
10°	426.2	427.5	413.9	407.0	406.1
12.5°	420.5	418.9	401.2	391.0	388.5
15°	413.1	408.6	386.5	372.9	368.4
17.5°	404.5	396.7	370.0	352.4	345.8
20°	395.5	384.0	352.0	329.4	321.2
22.5°	384.8	370.5	332.7	305.2	295.8
25°	373.7	355.3	312.2	280.6	269.1
27.5°	362.3	339.7	290.9	255.6	244.1
30°	349.5	322.9	268.7	230.6	216.6
32.5°	336.0	305.6	246.6	205.9	192.8
35°	322.0	288.0	224.4	181.7	168.6
37.5°	307.7	269.9	202.3	158.8	145.6
40°	292.5	251.5	180.1	137.0	124.3
42.5°	276.9	232.6	158.8	116.5	104.6
45°	261.7	213.7	138.3	97.2	85.7
47.5°	245.7	194.9	118.2	79.2	69.3
50°	229.7	176.0	98.9	63.6	57.0
52.5°	213.3	157.1	81.2	52.1	47.6
55°	196.9	138.3	65.2	43.5	40.6
57.5°	180.5	119.4	50.5	36.9	33.6
60°	164.1	100.9	39.4	29.9	27.1
62.5°	147.3	82.5	32.4	23.8	21.3
65°	130.5	65.6	25.8	18.5	16.8
67.5°	113.6	50.1	19.7	14.4	13.1
70°	95.6	35.7	14.8	11.1	10.7
72.5°	80.0	24.2	10.7	8.6	8.2
75°	63.2	17.2	7.8	6.6	6.2
77.5°	48.8	11.1	5.7	5.3	4.9
80°	34.1	6.2	4.1	3.7	3.7
82.5°	20.9	3.3	2.9	2.5	2.5
85°	9.4	1.6	1.6	1.6	1.6
87.5°	1.6	0.8	0.8	0.8	0.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)