

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: P1056012

Luminaire Tested: S124R3DR-S350D835-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1056012
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-7)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124R3DR-S350D835-X4F0-XX-UDD-FLL-W
Description: DEFINE 4, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

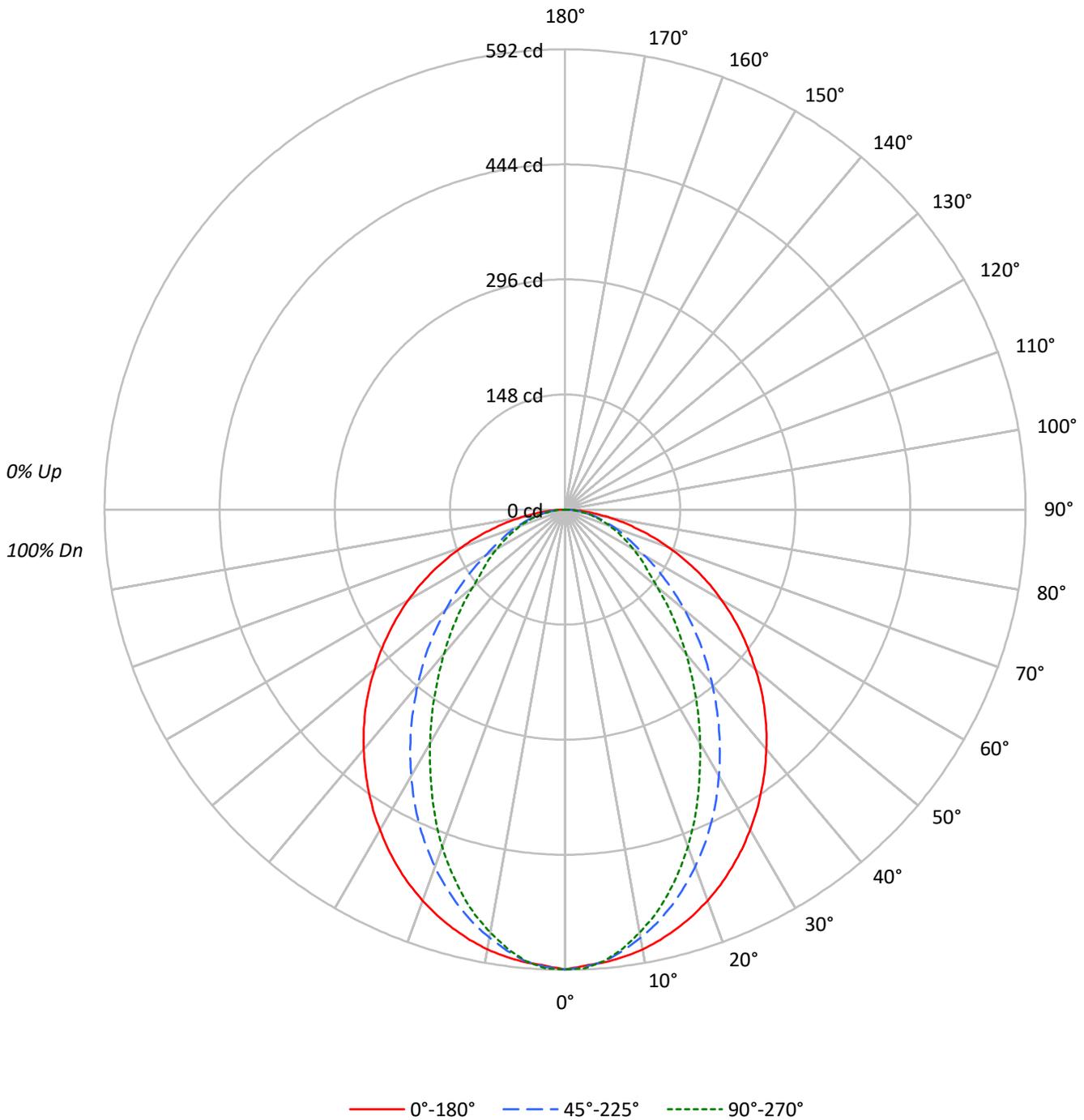
Lumens per Lamp: N/A
Luminaire Lumens: 1178.2 lumens
Efficiency: N/A
Efficacy: 93.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.95 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

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

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									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	105	102	98	107	103	100	97	99	96	93	95	93	91	92	90	88	86			86																
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73			73																
3	93	83	75	69	90	81	74	69	79	73	68	76	71	67	73	69	65	63			63																
4	85	74	66	60	83	73	65	60	71	64	59	68	63	58	66	61	57	55			55																
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51	49			49																
6	73	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45	43			43																
7	68	56	47	42	67	55	47	42	53	46	41	52	46	41	51	45	41	39			39																
8	64	51	43	38	62	51	43	38	49	42	37	48	42	37	47	41	37	35			35																
9	60	47	39	34	59	47	39	34	46	39	34	45	38	34	44	38	34	32			32																
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	41	35	31	29			29																

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5230	5230	5230
5°	5188	5176	5172
10°	5158	5021	4958
15°	5104	4833	4686
20°	5037	4603	4345
25°	4955	4339	3949
30°	4856	4040	3546
35°	4754	3726	3157
40°	4647	3401	2793
45°	4534	3086	2454
50°	4395	2754	2120
55°	4261	2422	1925
60°	4109	2078	1786
65°	3925	1885	1667
70°	3645	1745	1574
75°	3300	1606	1486
80°	2882	1487	1395
85°	2211	1369	1278

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4534 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.1	4.7
10°-20°	149.4	12.7
20°-30°	206.8	17.6
30°-40°	222.0	18.8
40°-50°	201.9	17.1
50°-60°	159.0	13.5
60°-70°	108.8	9.2
70°-80°	58.6	5.0
80°-90°	16.6	1.4
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°	411.3	34.9
0°-40°	633.3	53.8
0°-60°	994.2	84.4
0°-90°	1178.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1178.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	592	592	592	592	592	
5°	585	591	583	580	583	55
15°	558	552	528	514	512	157
25°	508	487	445	413	405	234
35°	440	406	345	303	292	276
45°	363	316	247	204	196	280
55°	276	224	157	127	125	247
65°	188	134	90	80	80	185
75°	97	59	47	43	44	103
85°	22	15	14	13	13	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	591.5	591.5	591.5	591.5	591.5
2.5°	587.2	594.1	588.9	589.8	590.6
5°	584.6	591.1	583.2	580.2	582.8
7.5°	580.2	584.6	572.4	566.7	569.3
10°	574.5	575.4	559.3	551.0	552.3
12.5°	566.7	564.5	544.9	533.2	534.1
15°	557.6	551.5	528.0	513.6	511.9
17.5°	547.1	537.1	509.3	491.0	487.5
20°	535.4	521.9	489.2	465.7	461.8
22.5°	522.3	504.9	467.5	439.6	434.0
25°	507.9	487.1	444.8	412.6	404.8
27.5°	492.3	467.9	420.5	385.2	375.2
30°	475.7	447.9	395.7	357.8	347.3
32.5°	458.8	427.4	370.4	330.4	319.5
35°	440.5	406.1	345.2	303.4	292.5
37.5°	421.8	383.9	319.5	277.3	265.9
40°	402.6	361.7	294.7	251.1	242.0
42.5°	383.0	339.1	270.3	226.8	218.5
45°	362.6	316.4	246.8	204.1	196.3
47.5°	341.7	293.4	222.9	182.8	175.4
50°	319.5	270.3	200.2	161.9	154.1
52.5°	298.2	246.8	178.5	141.5	137.5
55°	276.4	223.7	157.1	126.7	124.9
57.5°	254.6	200.7	137.5	114.9	113.2
60°	232.4	178.0	117.5	102.7	101.0
62.5°	210.2	155.8	102.7	91.0	90.1
65°	187.6	134.1	90.1	80.1	79.7
67.5°	163.7	113.2	78.8	70.5	70.1
70°	141.0	92.3	67.5	60.9	60.9
72.5°	119.7	73.1	57.0	51.8	51.8
75°	96.6	58.8	47.0	43.1	43.5
77.5°	76.2	46.1	37.9	35.3	35.3
80°	56.6	34.4	29.2	27.0	27.4
82.5°	38.3	23.9	20.9	19.6	19.6
85°	21.8	14.8	13.5	12.6	12.6
87.5°	7.8	7.0	6.5	5.7	6.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)