

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1056047

Luminaire Tested: S124R3DR-S575D927-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056047
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-S575D927-X4F0-XX-UDD-F-S
Description: DEFINE 4, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

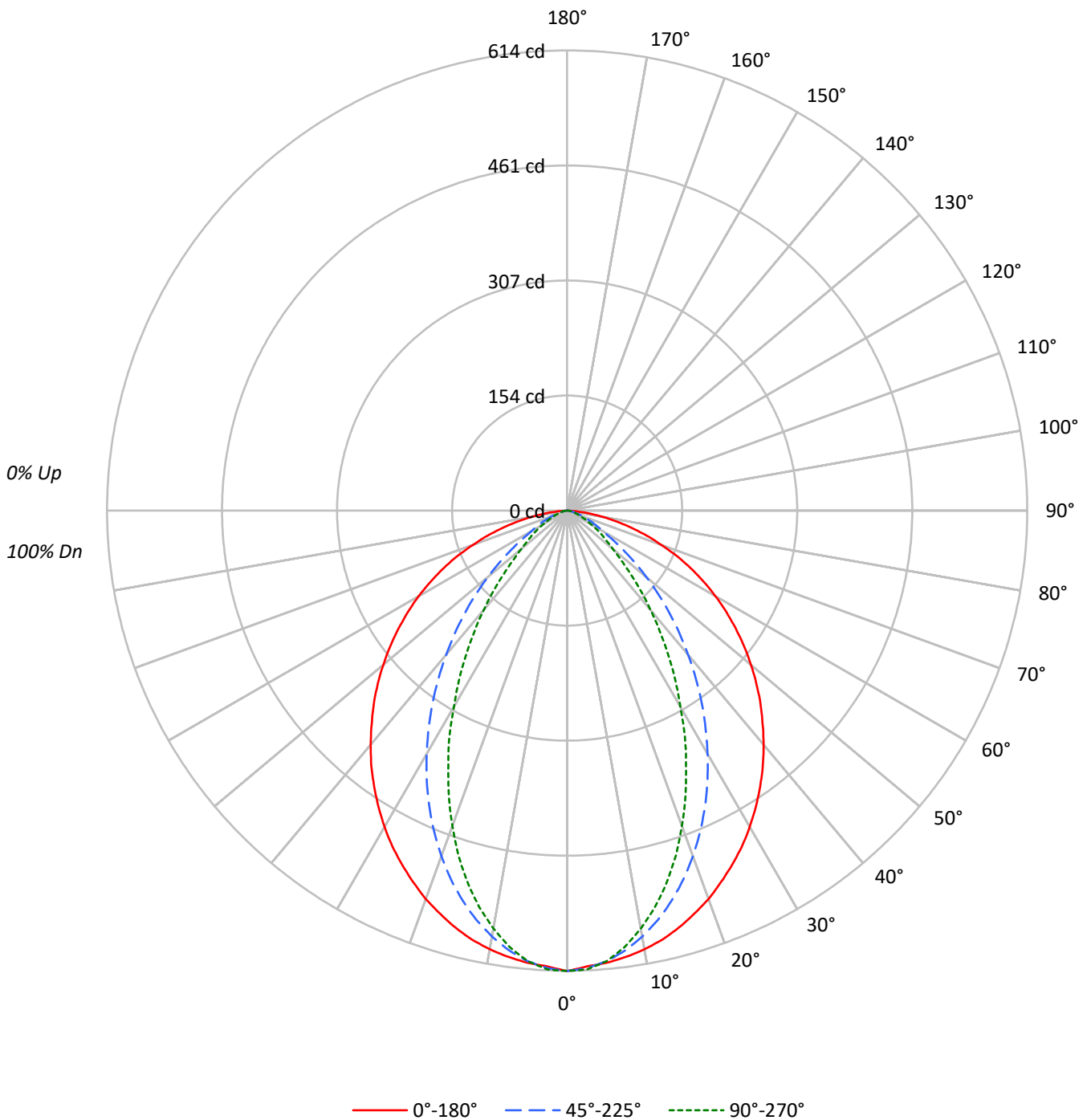
Lumens per Lamp: N/A
Luminaire Lumens: 993.5 lumens
Efficiency: N/A
Efficacy: 52.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.87 / 1.03
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 19.1
Input Voltage (V): 120
Input Current (A_{in}): 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	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°	5432	5432	5432
5°	5377	5356	5356
10°	5336	5182	5084
15°	5273	4933	4702
20°	5189	4618	4214
25°	5085	4247	3661
30°	4976	3825	3084
35°	4847	3377	2538
40°	4708	2898	2000
45°	4564	2411	1495
50°	4407	1897	1094
55°	4233	1403	872
60°	4046	971	668
65°	3805	753	492
70°	3446	533	385
75°	3010	372	294
80°	2418	290	260
85°	1339	233	233

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4564 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.0	5.7
10°-20°	152.3	15.3
20°-30°	203.1	20.4
30°-40°	204.5	20.6
40°-50°	167.7	16.9
50°-60°	114.6	11.5
60°-70°	64.1	6.4
70°-80°	25.4	2.6
80°-90°	4.8	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°	412.4	41.5
0°-40°	616.9	62.1
0°-60°	899.2	90.5
0°-90°	993.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	993.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	614	614	614	614	614	
5°	606	613	604	601	604	57
15°	576	570	539	520	514	162
25°	521	495	435	391	375	240
35°	449	402	313	253	235	281
45°	365	298	193	136	120	281
55°	275	193	91	61	57	246
65°	182	92	36	26	24	180
75°	88	24	11	9	9	94
85°	13	2	2	2	2	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	614.4	614.4	614.4	614.4	614.4
2.5°	608.7	616.1	611.0	611.5	612.7
5°	605.8	612.7	603.5	600.7	603.5
7.5°	600.7	605.8	592.1	586.4	587.5
10°	594.4	596.1	577.2	567.5	566.3
12.5°	586.4	584.1	559.5	545.2	541.7
15°	576.1	569.8	538.9	520.0	513.7
17.5°	564.1	553.2	516.0	491.4	482.3
20°	551.5	535.5	490.8	459.4	447.9
22.5°	536.6	516.6	463.9	425.6	412.5
25°	521.2	495.4	435.3	391.3	375.3
27.5°	505.1	473.7	405.6	356.4	340.4
30°	487.4	450.2	374.7	321.5	302.1
32.5°	468.5	426.2	343.8	287.2	268.9
35°	449.1	401.6	312.9	253.4	235.1
37.5°	429.1	376.4	282.0	221.4	203.1
40°	407.9	350.7	251.1	191.1	173.3
42.5°	386.1	324.4	221.4	162.5	145.9
45°	365.0	298.0	192.8	135.6	119.6
47.5°	342.7	271.7	164.8	110.4	96.7
50°	320.4	245.4	137.9	88.7	79.5
52.5°	297.5	219.1	113.3	72.7	66.4
55°	274.6	192.8	91.0	60.6	56.6
57.5°	251.7	166.5	70.4	51.5	46.9
60°	228.8	140.7	54.9	41.8	37.8
62.5°	205.4	115.0	45.2	33.2	29.7
65°	181.9	91.5	36.0	25.7	23.5
67.5°	158.5	69.8	27.5	20.0	18.3
70°	133.3	49.8	20.6	15.4	14.9
72.5°	111.6	33.8	14.9	12.0	11.4
75°	88.1	24.0	10.9	9.2	8.6
77.5°	68.1	15.4	8.0	7.4	6.9
80°	47.5	8.6	5.7	5.1	5.1
82.5°	29.2	4.6	4.0	3.4	3.4
85°	13.2	2.3	2.3	2.3	2.3
87.5°	2.3	1.1	1.1	1.1	1.1
90°	0.0	0.0	0.0	0.0	0.0



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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	16.60	18.01	16.97	18.32	18.64	7.70	9.10	8.06	9.42	9.73
	3H	18.19	19.44	18.57	19.77	20.14	8.29	9.54	8.66	9.87	10.23
	4H	18.79	19.95	19.19	20.30	20.69	8.44	9.61	8.85	9.96	10.34
	6H	19.22	20.29	19.63	20.66	21.05	8.55	9.63	8.96	9.99	10.39
	8H	19.33	20.35	19.76	20.74	21.14	8.57	9.59	9.00	9.98	10.38
	12H	19.37	20.35	19.81	20.73	21.16	8.58	9.55	9.01	9.93	10.36
4H	2H	16.46	17.63	16.86	17.98	18.36	8.28	9.45	8.68	9.80	10.18
	3H	18.11	19.07	18.52	19.47	19.87	8.99	9.95	9.40	10.35	10.75
	4H	18.71	19.57	19.15	19.99	20.43	9.19	10.05	9.63	10.47	10.91
	6H	19.20	19.95	19.67	20.39	20.85	9.36	10.10	9.82	10.54	11.01
	8H	19.35	20.04	19.81	20.49	20.95	9.39	10.08	9.86	10.53	11.00
	12H	19.42	20.03	19.91	20.52	20.99	9.41	10.03	9.90	10.51	10.98
8H	4H	18.61	19.30	19.07	19.74	20.21	9.46	10.16	9.93	10.60	11.07
	6H	19.09	19.65	19.59	20.15	20.63	9.67	10.23	10.17	10.73	11.21
	8H	19.23	19.74	19.75	20.25	20.74	9.72	10.23	10.24	10.74	11.23
	12H	19.32	19.77	19.84	20.26	20.83	9.78	10.23	10.29	10.72	11.29
12H	4H	18.57	19.18	19.05	19.66	20.13	9.49	10.11	9.98	10.59	11.06
	6H	19.03	19.54	19.55	20.05	20.54	9.69	10.20	10.21	10.72	11.21
	8H	19.20	19.64	19.71	20.14	20.71	9.79	10.23	10.30	10.73	11.30