

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: P1056055

Luminaire Tested: S124R3DR-S575D940-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056055
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-8)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124R3DR-S575D940-X4F0-XX-UDD-F-B
Description: DEFINE 4, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

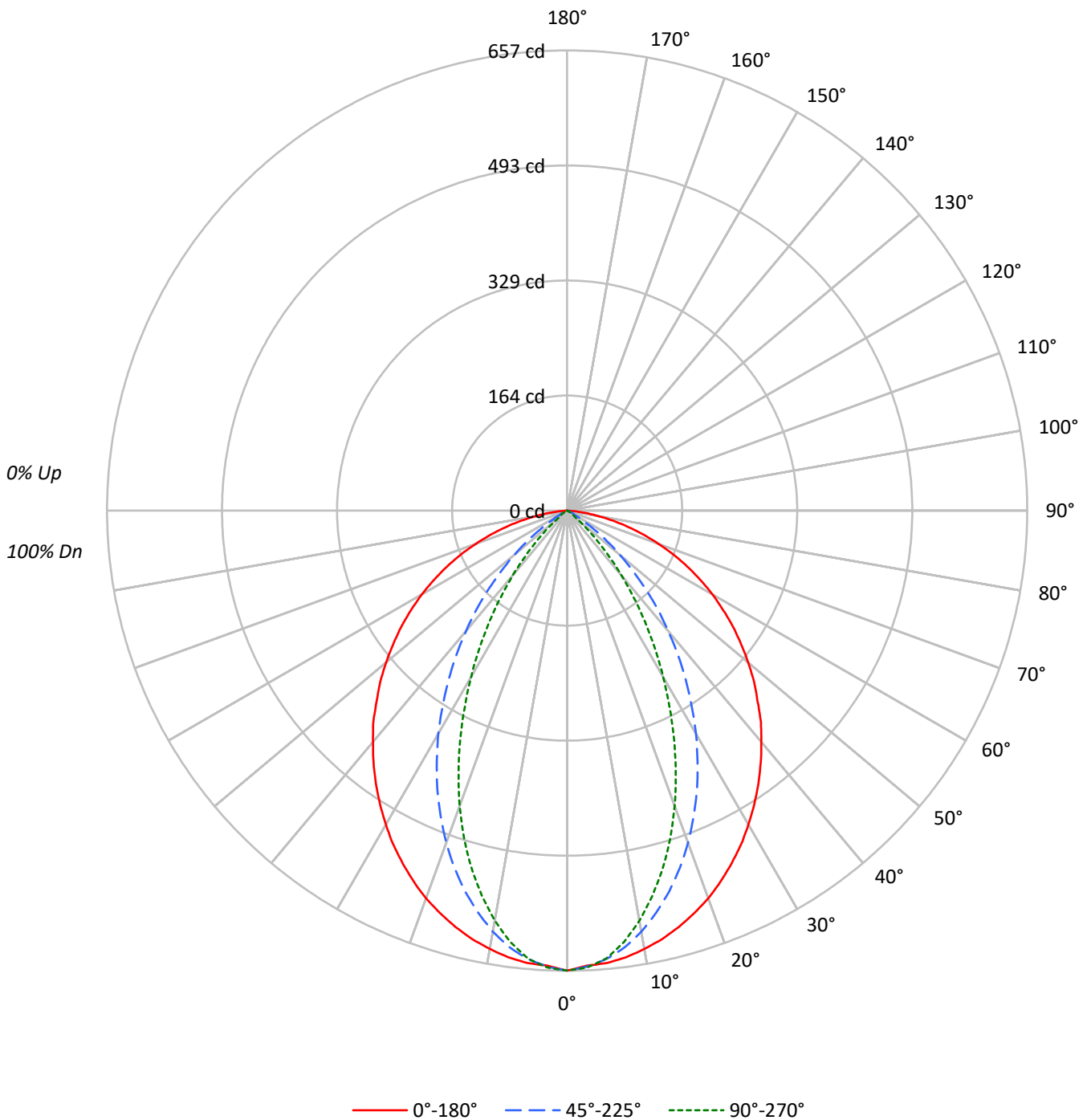
Lumens per Lamp: N/A
Luminaire Lumens: 918.0 lumens
Efficiency: N/A
Efficacy: 48.1 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 0.81 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

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	0
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	112	108	105	102	109	106	103	100	102	99	97		98	96	94		95	93	92	90
2	104	98	93	88	102	96	91	87	93	89	85		90	86	83		87	84	82	80
3	97	89	82	77	95	87	81	77	84	79	75		82	78	74		79	76	73	71
4	90	81	74	68	88	80	73	68	77	72	67		75	70	66		73	69	65	64
5	84	74	66	61	83	73	66	61	71	65	60		69	64	60		67	63	59	57
6	79	68	60	55	77	67	60	55	65	59	54		64	58	54		62	57	54	52
7	74	63	55	50	73	62	55	50	60	54	50		59	53	49		58	53	49	47
8	70	58	51	46	68	57	50	46	56	50	45		55	49	45		54	49	45	43
9	66	54	47	42	64	53	47	42	52	46	42		51	46	42		50	45	41	40
10	62	50	43	39	61	50	43	39	49	43	39		48	42	39		47	42	38	37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5807	5807	5807
5°	5755	5704	5698
10°	5706	5481	5336
15°	5635	5151	4833
20°	5544	4751	4223
25°	5421	4278	3525
30°	5285	3754	2800
35°	5137	3183	2085
40°	4979	2593	1390
45°	4806	1981	765
50°	4641	1355	213
55°	4456	735	139
60°	4235	228	80
65°	3960	149	40
70°	3578	67	16
75°	3081	20	0
80°	2327	0	0
85°	984	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4806 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.6	6.6
10°-20°	159.1	17.3
20°-30°	205.6	22.4
30°-40°	196.5	21.4
40°-50°	146.9	16.0
50°-60°	87.4	9.5
60°-70°	44.4	4.8
70°-80°	15.4	1.7
80°-90°	2.1	0.2
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°	425.2	46.3
0°-40°	621.7	67.7
0°-60°	856.1	93.3
0°-90°	918.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	918.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	657	657	657	657	657	
5°	648	654	643	639	642	61
15°	616	603	563	536	528	173
25°	556	517	438	381	361	256
35°	476	410	295	220	193	298
45°	384	295	158	84	61	297
55°	289	180	48	11	9	258
65°	189	73	7	3	2	187
75°	90	10	1	1	0	96
85°	10	0	0	0	0	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	656.8	656.8	656.8	656.8	656.8
2.5°	650.4	658.1	651.7	652.3	653.0
5°	648.4	653.6	642.7	639.4	642.0
7.5°	643.3	645.2	629.1	620.8	621.4
10°	635.6	633.6	610.5	596.3	594.4
12.5°	626.6	620.1	587.9	567.3	562.8
15°	615.6	602.7	562.8	536.4	528.0
17.5°	602.7	584.1	535.1	500.3	490.0
20°	589.2	563.4	504.9	461.7	448.8
22.5°	573.1	540.3	472.0	421.1	405.0
25°	555.7	517.1	438.5	380.6	361.3
27.5°	537.7	492.0	403.1	339.4	316.8
30°	517.7	465.6	367.7	297.5	274.3
32.5°	497.1	438.5	331.0	258.9	233.1
35°	475.9	410.2	294.9	219.6	193.2
37.5°	454.0	381.9	260.2	182.2	155.2
40°	431.4	352.9	224.7	146.8	120.4
42.5°	409.5	323.9	191.3	113.3	88.9
45°	384.4	294.9	158.4	84.4	61.2
47.5°	361.9	266.6	126.9	57.3	36.1
50°	337.4	236.3	98.5	33.5	15.5
52.5°	313.0	208.0	72.1	14.8	11.6
55°	289.1	179.7	47.7	10.9	9.0
57.5°	264.0	151.3	25.8	8.4	6.4
60°	239.5	123.6	12.9	6.4	4.5
62.5°	214.4	97.2	10.3	3.9	2.6
65°	189.3	72.8	7.1	2.6	1.9
67.5°	164.2	49.6	4.5	1.3	0.6
70°	138.4	30.3	2.6	0.6	0.6
72.5°	114.0	15.5	1.3	0.6	0.6
75°	90.2	9.7	0.6	0.6	0.0
77.5°	67.0	5.2	0.6	0.6	0.0
80°	45.7	1.9	0.0	0.0	0.0
82.5°	26.4	0.6	0.0	0.0	0.0
85°	9.7	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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	16.57	17.89	16.93	18.21	18.52	0.00	0.00	0.00	0.00	0.00
	3H	18.11	19.29	18.49	19.62	19.98	0.00	0.00	0.00	0.00	0.00
	4H	18.70	19.80	19.11	20.15	20.53	0.00	0.00	0.00	0.00	0.00
	6H	19.12	20.13	19.54	20.50	20.89	0.00	0.00	0.00	0.00	0.00
	8H	19.22	20.17	19.65	20.56	20.97	0.00	0.00	0.00	0.00	0.00
	12H	19.24	20.15	19.67	20.53	20.96	0.00	0.00	0.00	0.00	0.00
4H	2H	16.34	17.44	16.75	17.79	18.17	0.00	0.00	0.00	0.00	0.00
	3H	17.91	18.80	18.32	19.21	19.61	0.00	0.00	0.00	0.00	0.00
	4H	18.49	19.29	18.93	19.71	20.15	0.00	0.00	0.00	0.00	0.00
	6H	18.95	19.64	19.41	20.09	20.55	0.00	0.00	0.00	0.00	0.00
	8H	19.07	19.71	19.54	20.16	20.63	0.00	0.00	0.00	0.00	0.00
	12H	19.11	19.68	19.60	20.16	20.63	0.00	0.00	0.00	0.00	0.00
8H	4H	18.36	19.00	18.83	19.44	19.91	0.00	0.00	0.00	0.00	0.00
	6H	18.80	19.32	19.30	19.82	20.30	0.00	0.00	0.00	0.00	0.00
	8H	18.91	19.38	19.44	19.90	20.39	0.00	0.00	0.00	0.00	0.00
	12H	18.96	19.37	19.48	19.87	20.44	0.00	0.00	0.00	0.00	0.00
12H	4H	18.31	18.88	18.80	19.36	19.83	0.00	0.00	0.00	0.00	0.00
	6H	18.73	19.20	19.26	19.72	20.21	0.00	0.00	0.00	0.00	0.00
	8H	18.87	19.28	19.38	19.78	20.35	0.00	0.00	0.00	0.00	0.00