

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: P1056059

Luminaire Tested: S124R3DR-S575D950-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056059
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-S575D950-X4F0-XX-UDD-F-S
Description: DEFINE 4, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

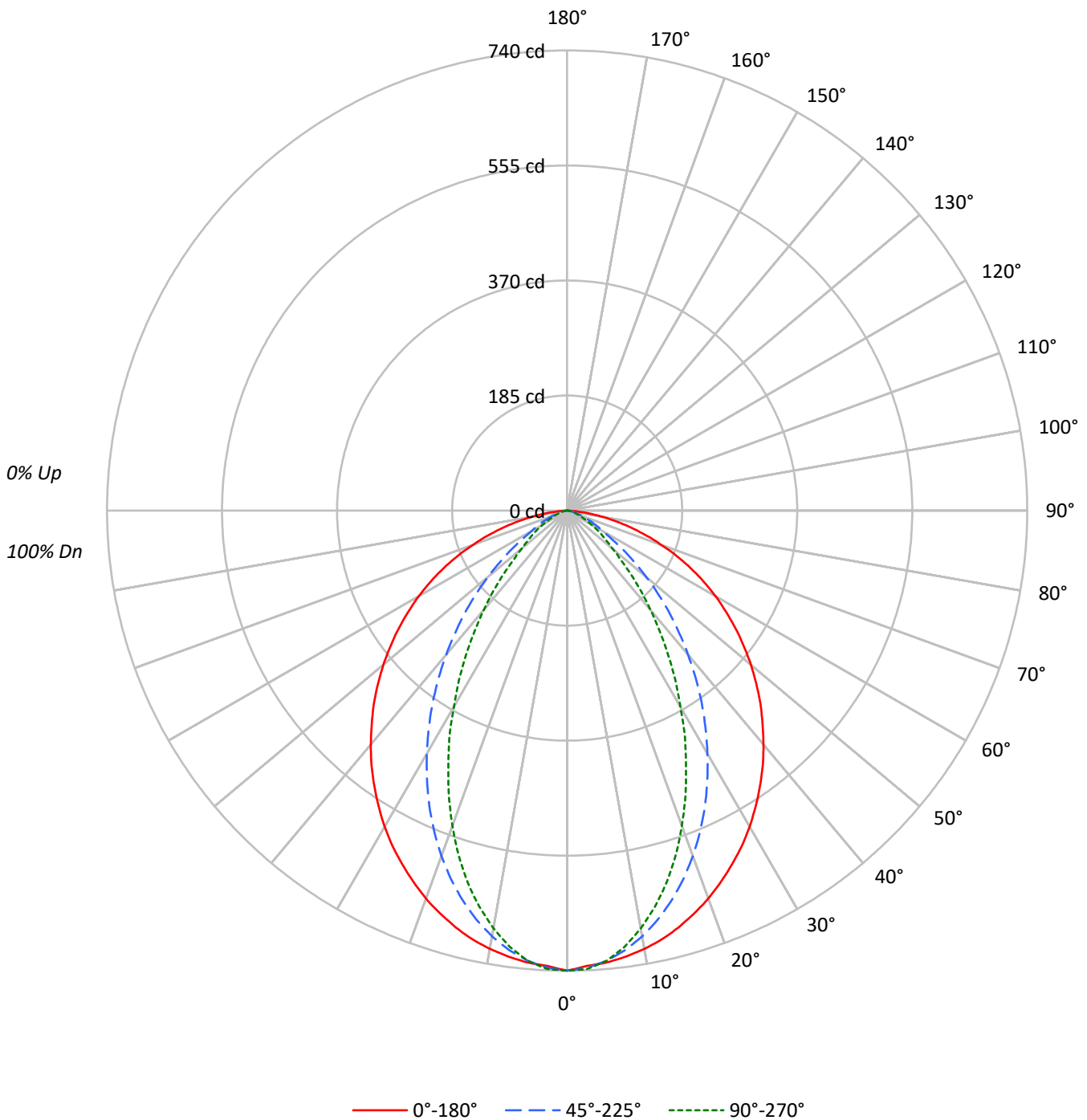
Lumens per Lamp: N/A
Luminaire Lumens: 1196.4 lumens
Efficiency: N/A
Efficacy: 62.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.87 / 1.03
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 19.1
Input Voltage (V): 120
Input Current (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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90
2	103	96	91	86	101	94	89	85	91	87	83	88	84	81	85	82	79
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70
4	89	78	71	65	86	77	70	65	75	69	64	73	67	63	71	66	62
5	82	71	64	58	80	70	63	58	68	62	57	66	61	56	65	60	56
6	77	65	57	52	75	64	57	52	63	56	51	61	55	51	60	54	50
7	72	60	52	47	70	59	52	47	58	51	46	56	50	46	55	50	46
8	67	55	48	42	66	55	47	42	53	47	42	52	46	42	51	46	42
9	63	51	44	39	62	51	44	39	50	43	39	49	43	38	48	42	38
10	60	48	41	36	59	47	40	36	46	40	36	45	40	35	45	39	35

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6542	6542	6542
5°	6475	6450	6450
10°	6426	6240	6123
15°	6350	5940	5663
20°	6248	5562	5075
25°	6122	5115	4408
30°	5993	4606	3714
35°	5837	4067	3056
40°	5669	3490	2409
45°	5495	2903	1801
50°	5307	2283	1318
55°	5098	1688	1051
60°	4873	1169	805
65°	4584	908	590
70°	4149	641	463
75°	3624	448	352
80°	2912	351	316
85°	1603	284	284

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5495 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.6	5.7
10°-20°	183.4	15.3
20°-30°	244.6	20.4
30°-40°	246.3	20.6
40°-50°	202.0	16.9
50°-60°	138.0	11.5
60°-70°	77.1	6.4
70°-80°	30.6	2.6
80°-90°	5.8	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°	496.6	41.5
0°-40°	742.8	62.1
0°-60°	1082.8	90.5
0°-90°	1196.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1196.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	740	740	740	740	740	
5°	730	738	727	723	727	69
15°	694	686	649	626	619	195
25°	628	597	524	471	452	289
35°	541	484	377	305	283	338
45°	440	359	232	163	144	339
55°	331	232	110	73	68	296
65°	219	110	43	31	28	216
75°	106	29	13	11	10	114
85°	16	3	3	3	3	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	739.9	739.9	739.9	739.9	739.9
2.5°	733.0	742.0	735.8	736.5	737.8
5°	729.6	737.8	726.8	723.4	726.8
7.5°	723.4	729.6	713.0	706.1	707.5
10°	715.8	717.9	695.1	683.4	682.0
12.5°	706.1	703.4	673.8	656.5	652.4
15°	693.7	686.2	649.0	626.2	618.7
17.5°	679.3	666.2	621.4	591.8	580.8
20°	664.1	644.8	591.1	553.2	539.4
22.5°	646.2	622.1	558.7	512.6	496.7
25°	627.6	596.6	524.3	471.2	451.9
27.5°	608.3	570.4	488.4	429.2	409.9
30°	587.0	542.2	451.2	387.2	363.8
32.5°	564.2	513.2	414.0	345.8	323.8
35°	540.8	483.6	376.8	305.2	283.1
37.5°	516.7	453.3	339.6	266.6	244.6
40°	491.2	422.3	302.4	230.1	208.7
42.5°	465.0	390.6	266.6	195.7	175.7
45°	439.5	358.9	232.2	163.3	144.0
47.5°	412.7	327.2	198.4	133.0	116.4
50°	385.8	295.5	166.0	106.8	95.8
52.5°	358.2	263.9	136.4	87.5	79.9
55°	330.7	232.2	109.5	73.0	68.2
57.5°	303.1	200.5	84.7	62.0	56.5
60°	275.6	169.5	66.1	50.3	45.5
62.5°	247.3	138.5	54.4	40.0	35.8
65°	219.1	110.2	43.4	31.0	28.2
67.5°	190.8	84.0	33.1	24.1	22.0
70°	160.5	59.9	24.8	18.6	17.9
72.5°	134.3	40.6	17.9	14.5	13.8
75°	106.1	28.9	13.1	11.0	10.3
77.5°	82.0	18.6	9.6	9.0	8.3
80°	57.2	10.3	6.9	6.2	6.2
82.5°	35.1	5.5	4.8	4.1	4.1
85°	15.8	2.8	2.8	2.8	2.8
87.5°	2.8	1.4	1.4	1.4	1.4
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	17.25	18.66	17.62	18.97	19.28	8.34	9.75	8.70	10.06	10.37
	3H	18.84	20.09	19.21	20.42	20.78	8.93	10.18	9.31	10.51	10.87
	4H	19.43	20.60	19.83	20.95	21.33	9.09	10.26	9.49	10.61	10.99
	6H	19.86	20.94	20.28	21.31	21.70	9.20	10.27	9.61	10.64	11.03
	8H	19.97	21.00	20.40	21.39	21.79	9.21	10.24	9.64	10.63	11.03
	12H	20.02	20.99	20.45	21.38	21.81	9.22	10.20	9.65	10.58	11.01
4H	2H	17.10	18.27	17.51	18.62	19.00	8.92	10.09	9.32	10.44	10.82
	3H	18.75	19.71	19.16	20.11	20.51	9.63	10.59	10.05	11.00	11.40
	4H	19.36	20.21	19.79	20.63	21.07	9.84	10.70	10.27	11.11	11.55
	6H	19.85	20.59	20.31	21.04	21.50	10.01	10.75	10.47	11.19	11.66
	8H	19.99	20.68	20.46	21.13	21.60	10.04	10.73	10.50	11.18	11.64
	12H	20.06	20.68	20.55	21.16	21.63	10.06	10.68	10.55	11.16	11.63
8H	4H	19.25	19.94	19.72	20.39	20.86	10.11	10.80	10.58	11.25	11.72
	6H	19.73	20.30	20.23	20.79	21.27	10.31	10.88	10.81	11.37	11.85
	8H	19.87	20.38	20.39	20.90	21.39	10.37	10.88	10.89	11.39	11.88
	12H	19.97	20.41	20.48	20.91	21.48	10.43	10.88	10.94	11.37	11.94
12H	4H	19.21	19.82	19.69	20.30	20.78	10.14	10.75	10.62	11.23	11.70
	6H	19.68	20.18	20.19	20.70	21.19	10.34	10.85	10.86	11.36	11.86
	8H	19.84	20.29	20.35	20.78	21.35	10.43	10.88	10.95	11.38	11.95