

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: P1055993

Luminaire Tested: S124R3DR-S1195D927-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055993
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-S1195D927-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

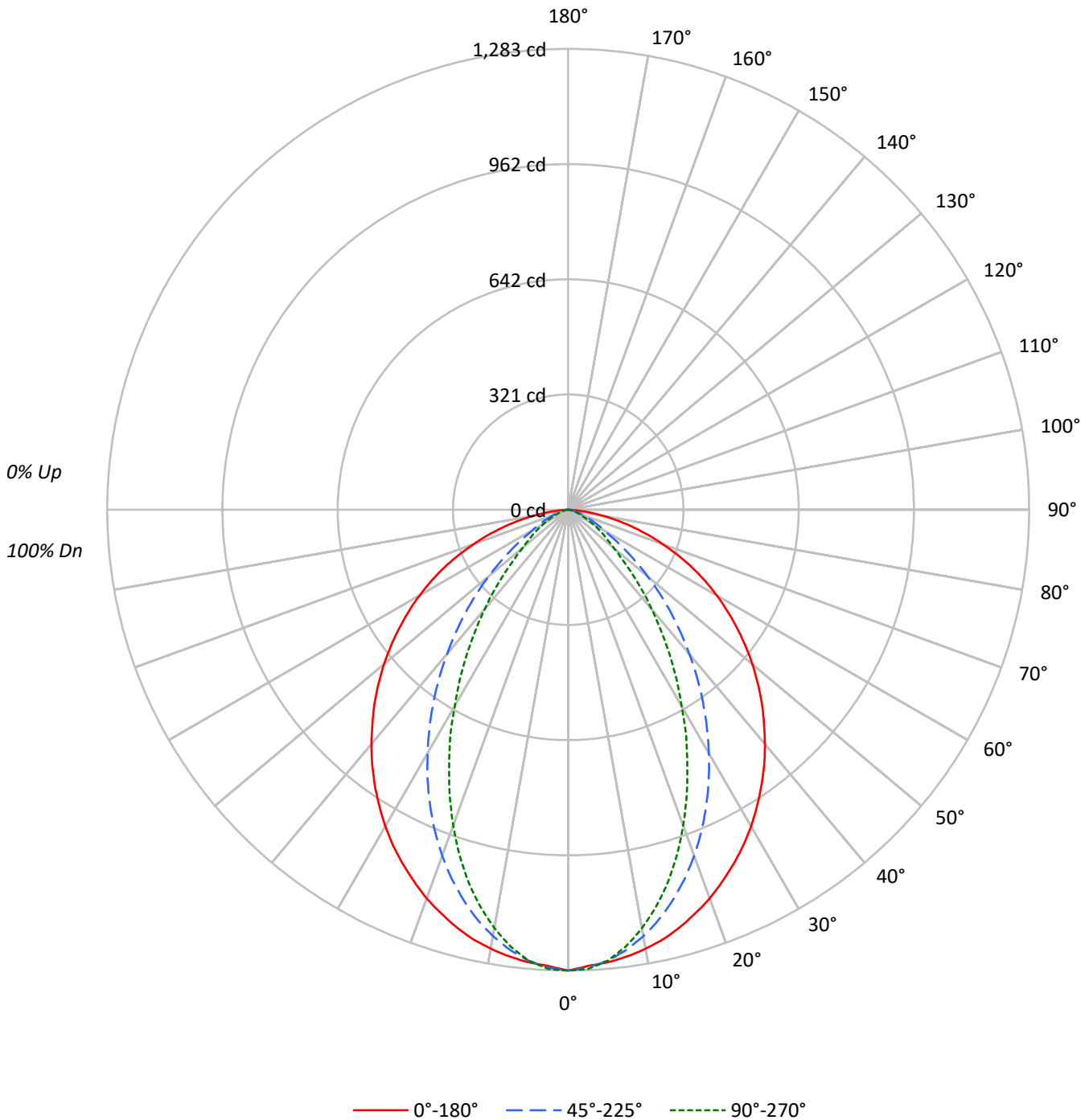
Lumens per Lamp: N/A
Luminaire Lumens: 2074.8 lumens
Efficiency: N/A
Efficacy: 49.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.87 / 1.03
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 41.9
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	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°	11344	11344	11344
5°	11229	11186	11186
10°	11144	10823	10619
15°	11012	10301	9821
20°	10836	9645	8802
25°	10618	8870	7645
30°	10392	7989	6440
35°	10123	7053	5300
40°	9831	6054	4178
45°	9530	5034	3122
50°	9202	3960	2285
55°	8840	2929	1824
60°	8451	2028	1395
65°	7948	1575	1025
70°	7197	1112	804
75°	6286	775	611
80°	5051	606	550
85°	2790	487	487

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9530 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.0	5.7
10°-20°	318.0	15.3
20°-30°	424.2	20.4
30°-40°	427.1	20.6
40°-50°	350.2	16.9
50°-60°	239.4	11.5
60°-70°	133.8	6.4
70°-80°	53.0	2.6
80°-90°	10.1	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°	861.2	41.5
0°-40°	1288.3	62.1
0°-60°	1877.9	90.5
0°-90°	2074.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2074.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1283	1283	1283	1283	1283	
5°	1265	1280	1260	1254	1260	120
15°	1203	1190	1125	1086	1073	339
25°	1088	1035	909	817	784	501
35°	938	839	654	529	491	586
45°	762	622	403	283	250	588
55°	574	403	190	127	118	513
65°	380	191	75	54	49	375
75°	184	50	23	19	18	197
85°	28	5	5	5	5	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1283.1	1283.1	1283.1	1283.1	1283.1
2.5°	1271.2	1286.7	1276.0	1277.2	1279.6
5°	1265.2	1279.6	1260.4	1254.5	1260.4
7.5°	1254.5	1265.2	1236.5	1224.6	1227.0
10°	1241.3	1244.9	1205.5	1185.2	1182.8
12.5°	1224.6	1219.8	1168.4	1138.6	1131.4
15°	1203.1	1190.0	1125.4	1086.0	1072.9
17.5°	1178.0	1155.3	1077.6	1026.3	1007.2
20°	1151.7	1118.3	1025.1	959.4	935.5
22.5°	1120.7	1078.8	968.9	888.9	861.4
25°	1088.4	1034.6	909.2	817.2	783.7
27.5°	1054.9	989.2	847.1	744.3	710.9
30°	1017.9	940.3	782.5	671.4	630.8
32.5°	978.5	890.1	718.0	599.8	561.5
35°	937.9	838.7	653.5	529.3	491.0
37.5°	896.0	786.1	589.0	462.4	424.1
40°	851.8	732.4	524.5	399.0	362.0
42.5°	806.4	677.4	462.4	339.3	304.7
45°	762.2	622.5	402.6	283.2	249.7
47.5°	715.6	567.5	344.1	230.6	201.9
50°	669.0	512.5	287.9	185.2	166.1
52.5°	621.3	457.6	236.6	151.7	138.6
55°	573.5	402.6	190.0	126.6	118.3
57.5°	525.7	347.7	147.0	107.5	98.0
60°	477.9	293.9	114.7	87.2	78.9
62.5°	428.9	240.1	94.4	69.3	62.1
65°	379.9	191.2	75.3	53.8	49.0
67.5°	330.9	145.8	57.3	41.8	38.2
70°	278.4	103.9	43.0	32.3	31.1
72.5°	233.0	70.5	31.1	25.1	23.9
75°	184.0	50.2	22.7	19.1	17.9
77.5°	142.2	32.3	16.7	15.5	14.3
80°	99.2	17.9	11.9	10.8	10.8
82.5°	60.9	9.6	8.4	7.2	7.2
85°	27.5	4.8	4.8	4.8	4.8
87.5°	4.8	2.4	2.4	2.4	2.4
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	19.16	20.57	19.53	20.88	21.20	10.25	11.66	10.62	11.97	12.29
	3H	20.75	22.00	21.13	22.33	22.69	10.84	12.10	11.22	12.42	12.79
	4H	21.34	22.51	21.75	22.86	23.24	11.00	12.17	11.40	12.52	12.90
	6H	21.78	22.85	22.19	23.22	23.61	11.11	12.18	11.52	12.55	12.94
	8H	21.89	22.91	22.32	23.30	23.70	11.13	12.15	11.56	12.54	12.94
	12H	21.93	22.91	22.36	23.29	23.72	11.14	12.11	11.57	12.49	12.92
4H	2H	19.02	20.19	19.42	20.54	20.92	10.84	12.00	11.24	12.35	12.73
	3H	20.66	21.62	21.08	22.03	22.43	11.55	12.51	11.96	12.91	13.31
	4H	21.27	22.13	21.70	22.55	22.99	11.75	12.61	12.19	13.03	13.47
	6H	21.76	22.50	22.22	22.95	23.41	11.92	12.66	12.38	13.11	13.57
	8H	21.91	22.60	22.37	23.04	23.51	11.95	12.64	12.42	13.09	13.56
	12H	21.98	22.59	22.46	23.07	23.55	11.98	12.59	12.46	13.07	13.55
8H	4H	21.16	21.86	21.63	22.30	22.77	12.02	12.71	12.49	13.16	13.63
	6H	21.64	22.21	22.15	22.71	23.19	12.23	12.79	12.73	13.29	13.77
	8H	21.79	22.30	22.31	22.81	23.30	12.29	12.79	12.80	13.31	13.80
	12H	21.88	22.33	22.39	22.82	23.39	12.35	12.79	12.86	13.29	13.86
12H	4H	21.12	21.74	21.61	22.22	22.69	12.05	12.66	12.53	13.14	13.62
	6H	21.59	22.10	22.11	22.61	23.10	12.26	12.76	12.78	13.28	13.77
	8H	21.75	22.20	22.27	22.70	23.27	12.35	12.80	12.86	13.29	13.86