

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: P1056075

Luminaire Tested: S124R3DRP-S795D927-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056075
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: S124R3DRP-S795D927-X4F0-XX-UDD-F-W
Description: DEFINE 4, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

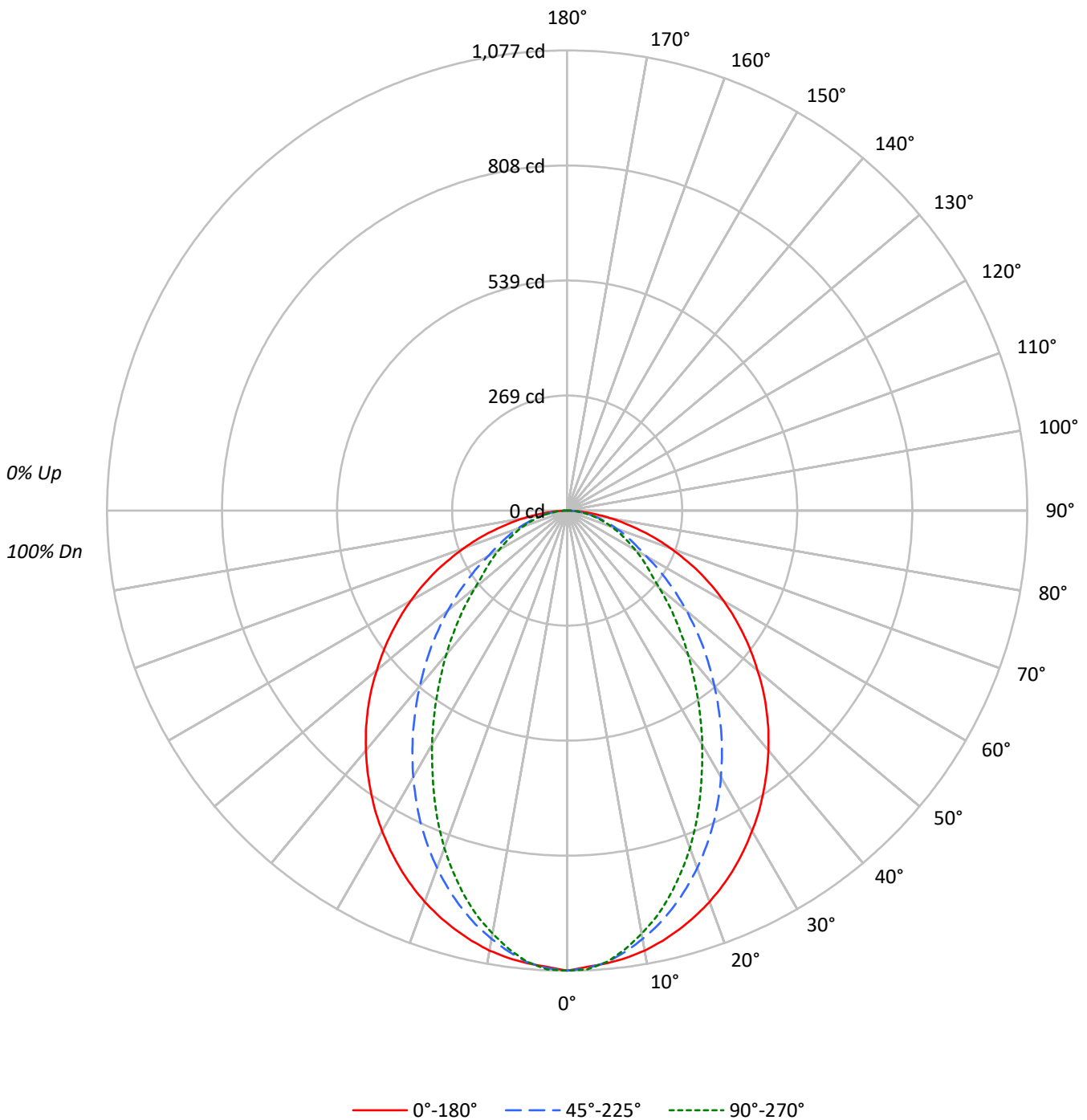
Lumens per Lamp: N/A
Luminaire Lumens: 2144.3 lumens
Efficiency: N/A
Efficacy: 81.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.95 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
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
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	110	105	102	98	107	103	100	97	99	96	93	95	93	91	92	90	88
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	76
3	93	83	75	69	90	81	74	69	79	73	68	76	71	67	73	69	65
4	85	74	66	60	83	73	65	60	71	64	59	68	63	58	66	61	57
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51
6	73	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45
7	68	56	47	42	67	55	47	42	53	46	41	52	46	41	51	45	41
8	64	51	43	38	62	51	43	38	49	42	37	48	42	37	47	41	37
9	60	47	39	34	59	47	39	34	46	39	34	45	38	34	44	38	34
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	41	35	31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9519	9519	9519
5°	9442	9421	9414
10°	9388	9139	9025
15°	9289	8795	8527
20°	9168	8378	7908
25°	9019	7898	7187
30°	8840	7352	6454
35°	8653	6780	5745
40°	8458	6190	5084
45°	8251	5617	4468
50°	7998	5012	3857
55°	7753	4409	3505
60°	7480	3782	3250
65°	7142	3431	3033
70°	6636	3174	2867
75°	6009	2924	2706
80°	5244	2704	2541
85°	4017	2496	2333

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8251 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.2	4.7
10°-20°	271.9	12.7
20°-30°	376.5	17.6
30°-40°	404.1	18.8
40°-50°	367.4	17.1
50°-60°	289.4	13.5
60°-70°	198.1	9.2
70°-80°	106.6	5.0
80°-90°	30.2	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°	748.6	34.9
0°-40°	1152.6	53.8
0°-60°	1809.4	84.4
0°-90°	2144.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2144.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1077	1077	1077	1077	1077	
5°	1064	1076	1062	1056	1061	101
15°	1015	1004	961	935	932	286
25°	924	886	810	751	737	426
35°	802	739	628	552	532	501
45°	660	576	449	372	357	509
55°	503	407	286	230	227	450
65°	341	244	164	146	145	337
75°	176	107	86	78	79	188
85°	40	27	25	23	23	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1076.6	1076.6	1076.6	1076.6	1076.6
2.5°	1068.7	1081.3	1071.8	1073.4	1075.0
5°	1063.9	1075.8	1061.5	1056.0	1060.7
7.5°	1056.0	1063.9	1041.7	1031.4	1036.2
10°	1045.7	1047.3	1018.0	1002.9	1005.3
12.5°	1031.4	1027.5	991.8	970.4	972.0
15°	1014.8	1003.7	960.9	934.8	931.6
17.5°	995.8	977.6	926.9	893.6	887.2
20°	974.4	949.8	890.4	847.6	840.5
22.5°	950.6	918.9	850.8	800.1	789.8
25°	924.5	886.5	809.6	751.0	736.7
27.5°	896.0	851.6	765.2	701.1	682.9
30°	865.9	815.2	720.1	651.2	632.2
32.5°	835.0	777.9	674.1	601.3	581.5
35°	801.7	739.1	628.2	552.2	532.3
37.5°	767.6	698.7	581.5	504.6	484.0
40°	732.8	658.3	536.3	457.1	440.5
42.5°	697.1	617.1	491.9	412.7	397.7
45°	659.9	575.9	449.2	371.5	357.3
47.5°	621.9	533.9	405.6	332.7	319.2
50°	581.5	491.9	364.4	294.7	280.4
52.5°	542.6	449.2	324.8	257.5	250.3
55°	503.0	407.2	286.0	230.5	227.4
57.5°	463.4	365.2	250.3	209.1	206.0
60°	423.0	324.0	213.9	187.0	183.8
62.5°	382.6	283.6	187.0	165.6	164.0
65°	341.4	244.0	164.0	145.8	145.0
67.5°	297.9	206.0	143.4	128.3	127.5
70°	256.7	167.9	122.8	110.9	110.9
72.5°	217.9	133.1	103.8	94.3	94.3
75°	175.9	106.9	85.6	78.4	79.2
77.5°	138.6	84.0	68.9	64.2	64.2
80°	103.0	62.6	53.1	49.1	49.9
82.5°	69.7	43.6	38.0	35.6	35.6
85°	39.6	26.9	24.6	23.0	23.0
87.5°	14.3	12.7	11.9	10.3	11.1
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	18.97	20.49	19.33	20.81	21.12	14.75	16.27	15.11	16.59	16.90
	3H	20.75	22.12	21.12	22.44	22.80	16.36	17.73	16.74	18.06	18.42
	4H	21.42	22.70	21.82	23.05	23.43	16.99	18.28	17.39	18.62	19.00
	6H	21.93	23.12	22.34	23.48	23.87	17.49	18.68	17.90	19.04	19.44
	8H	22.09	23.22	22.52	23.61	24.01	17.66	18.79	18.09	19.18	19.58
	12H	22.19	23.27	22.62	23.65	24.08	17.78	18.87	18.21	19.25	19.68
4H	2H	19.07	20.35	19.46	20.70	21.08	15.47	16.75	15.87	17.10	17.48
	3H	21.01	22.08	21.42	22.48	22.88	17.27	18.34	17.68	18.74	19.14
	4H	21.77	22.73	22.20	23.15	23.58	18.01	18.97	18.44	19.39	19.83
	6H	22.40	23.24	22.86	23.68	24.14	18.63	19.47	19.08	19.91	20.37
	8H	22.62	23.41	23.08	23.85	24.32	18.84	19.63	19.31	20.07	20.54
	12H	22.77	23.48	23.26	23.95	24.43	19.01	19.71	19.49	20.19	20.66
8H	4H	21.82	22.61	22.29	23.05	23.52	18.40	19.18	18.86	19.63	20.09
	6H	22.52	23.17	23.02	23.66	24.14	19.13	19.78	19.63	20.27	20.75
	8H	22.79	23.37	23.30	23.88	24.37	19.42	20.00	19.93	20.51	21.00
	12H	23.01	23.52	23.52	24.02	24.58	19.66	20.18	20.17	20.67	21.24
12H	4H	21.81	22.52	22.30	22.99	23.47	18.45	19.16	18.94	19.63	20.10
	6H	22.52	23.10	23.03	23.61	24.10	19.21	19.80	19.73	20.31	20.79
	8H	22.82	23.34	23.33	23.83	24.40	19.56	20.08	20.07	20.57	21.13