

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: P1056074

Luminaire Tested: S124R3DR-S795D927-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056074
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-S795D927-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

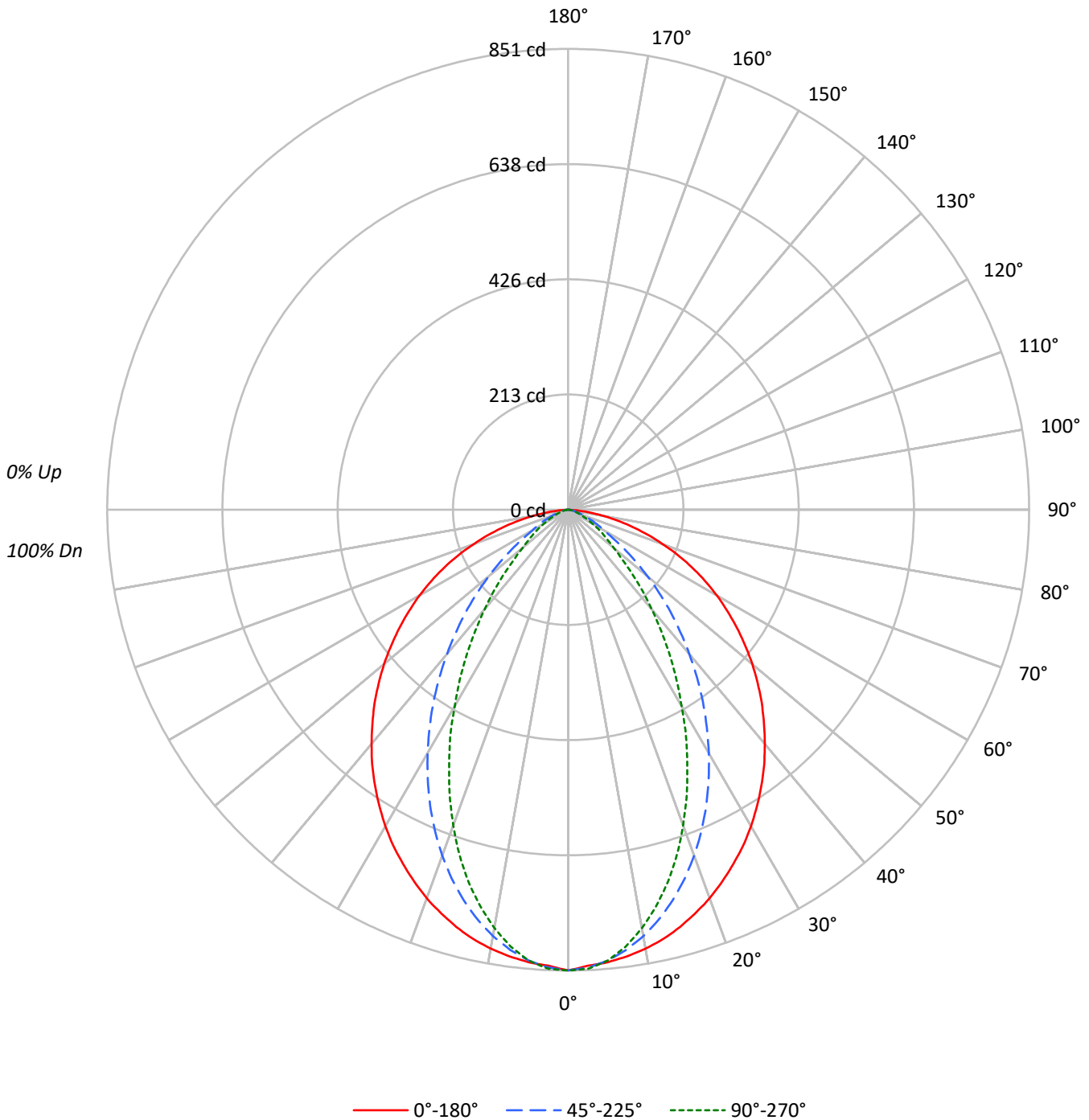
Lumens per Lamp: N/A
Luminaire Lumens: 1375.7 lumens
Efficiency: N/A
Efficacy: 52.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.87 / 1.03
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 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									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°	7522	7522	7522
5°	7445	7418	7418
10°	7390	7176	7041
15°	7302	6830	6512
20°	7185	6395	5836
25°	7040	5881	5070
30°	6890	5298	4270
35°	6712	4677	3514
40°	6519	4014	2770
45°	6319	3338	2071
50°	6102	2626	1514
55°	5861	1942	1208
60°	5604	1344	925
65°	5270	1044	680
70°	4772	737	533
75°	4168	516	407
80°	3350	402	361
85°	1846	325	325

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6319 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.9	5.7
10°-20°	210.9	15.3
20°-30°	281.2	20.4
30°-40°	283.2	20.6
40°-50°	232.2	16.9
50°-60°	158.7	11.5
60°-70°	88.7	6.4
70°-80°	35.2	2.6
80°-90°	6.7	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°	571.0	41.5
0°-40°	854.2	62.1
0°-60°	1245.2	90.5
0°-90°	1375.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1375.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	851	851	851	851	851	
5°	839	848	836	832	836	80
15°	798	789	746	720	711	225
25°	722	686	603	542	520	332
35°	622	556	433	351	326	389
45°	505	413	267	188	166	390
55°	380	267	126	84	78	340
65°	252	127	50	36	32	249
75°	122	33	15	13	12	131
85°	18	3	3	3	3	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	850.8	850.8	850.8	850.8	850.8
2.5°	842.9	853.2	846.0	846.8	848.4
5°	838.9	848.4	835.8	831.8	835.8
7.5°	831.8	838.9	819.9	812.0	813.6
10°	823.1	825.5	799.3	785.8	784.3
12.5°	812.0	808.8	774.8	754.9	750.2
15°	797.7	789.0	746.2	720.1	711.4
17.5°	781.1	766.0	714.5	680.5	667.8
20°	763.7	741.5	679.7	636.1	620.3
22.5°	743.1	715.3	642.5	589.4	571.2
25°	721.7	686.0	602.8	541.9	519.7
27.5°	699.5	655.9	561.7	493.5	471.3
30°	674.9	623.4	518.9	445.2	418.3
32.5°	648.8	590.2	476.1	397.7	372.3
35°	621.9	556.1	433.3	350.9	325.6
37.5°	594.1	521.3	390.5	306.6	281.2
40°	564.8	485.6	347.8	264.6	240.0
42.5°	534.7	449.2	306.6	225.0	202.0
45°	505.4	412.7	267.0	187.7	165.6
47.5°	474.5	376.3	228.1	152.9	133.9
50°	443.6	339.8	190.9	122.8	110.1
52.5°	411.9	303.4	156.9	100.6	91.9
55°	380.2	267.0	126.0	84.0	78.4
57.5°	348.6	230.5	97.4	71.3	65.0
60°	316.9	194.9	76.0	57.8	52.3
62.5°	284.4	159.2	62.6	45.9	41.2
65°	251.9	126.7	49.9	35.6	32.5
67.5°	219.4	96.6	38.0	27.7	25.3
70°	184.6	68.9	28.5	21.4	20.6
72.5°	154.5	46.7	20.6	16.6	15.8
75°	122.0	33.3	15.1	12.7	11.9
77.5°	94.3	21.4	11.1	10.3	9.5
80°	65.8	11.9	7.9	7.1	7.1
82.5°	40.4	6.3	5.5	4.8	4.8
85°	18.2	3.2	3.2	3.2	3.2
87.5°	3.2	1.6	1.6	1.6	1.6
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	17.73	19.14	18.10	19.45	19.77	8.83	10.23	9.19	10.55	10.86
	3H	19.32	20.57	19.70	20.90	21.26	9.42	10.67	9.79	11.00	11.36
	4H	19.92	21.08	20.32	21.43	21.82	9.57	10.74	9.98	11.09	11.47
	6H	20.35	21.42	20.76	21.79	22.18	9.68	10.76	10.09	11.12	11.52
	8H	20.46	21.48	20.89	21.87	22.27	9.70	10.72	10.13	11.11	11.52
	12H	20.50	21.48	20.93	21.86	22.29	9.71	10.68	10.14	11.07	11.50
4H	2H	17.59	18.76	17.99	19.11	19.49	9.41	10.58	9.81	10.93	11.31
	3H	19.24	20.19	19.65	20.60	21.00	10.12	11.08	10.53	11.48	11.88
	4H	19.84	20.70	20.28	21.12	21.56	10.32	11.18	10.76	11.60	12.04
	6H	20.34	21.08	20.80	21.52	21.99	10.49	11.23	10.95	11.68	12.14
	8H	20.48	21.17	20.94	21.62	22.08	10.52	11.22	10.99	11.66	12.13
	12H	20.55	21.16	21.04	21.65	22.12	10.55	11.16	11.03	11.64	12.12
8H	4H	19.73	20.43	20.20	20.87	21.34	10.60	11.29	11.06	11.73	12.20
	6H	20.22	20.78	20.72	21.28	21.76	10.80	11.37	11.30	11.86	12.34
	8H	20.36	20.87	20.88	21.38	21.87	10.86	11.37	11.38	11.88	12.37
	12H	20.45	20.90	20.96	21.39	21.96	10.92	11.37	11.43	11.86	12.43
12H	4H	19.70	20.31	20.18	20.79	21.26	10.62	11.24	11.11	11.72	12.19
	6H	20.16	20.67	20.68	21.18	21.67	10.83	11.34	11.35	11.85	12.34
	8H	20.33	20.77	20.84	21.27	21.84	10.92	11.37	11.43	11.86	12.43