

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: P1056076

Luminaire Tested: S124R3DR-S795D930-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056076
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-S795D930-X4F0-XX-UDD-F-B
Description: DEFINE 4, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

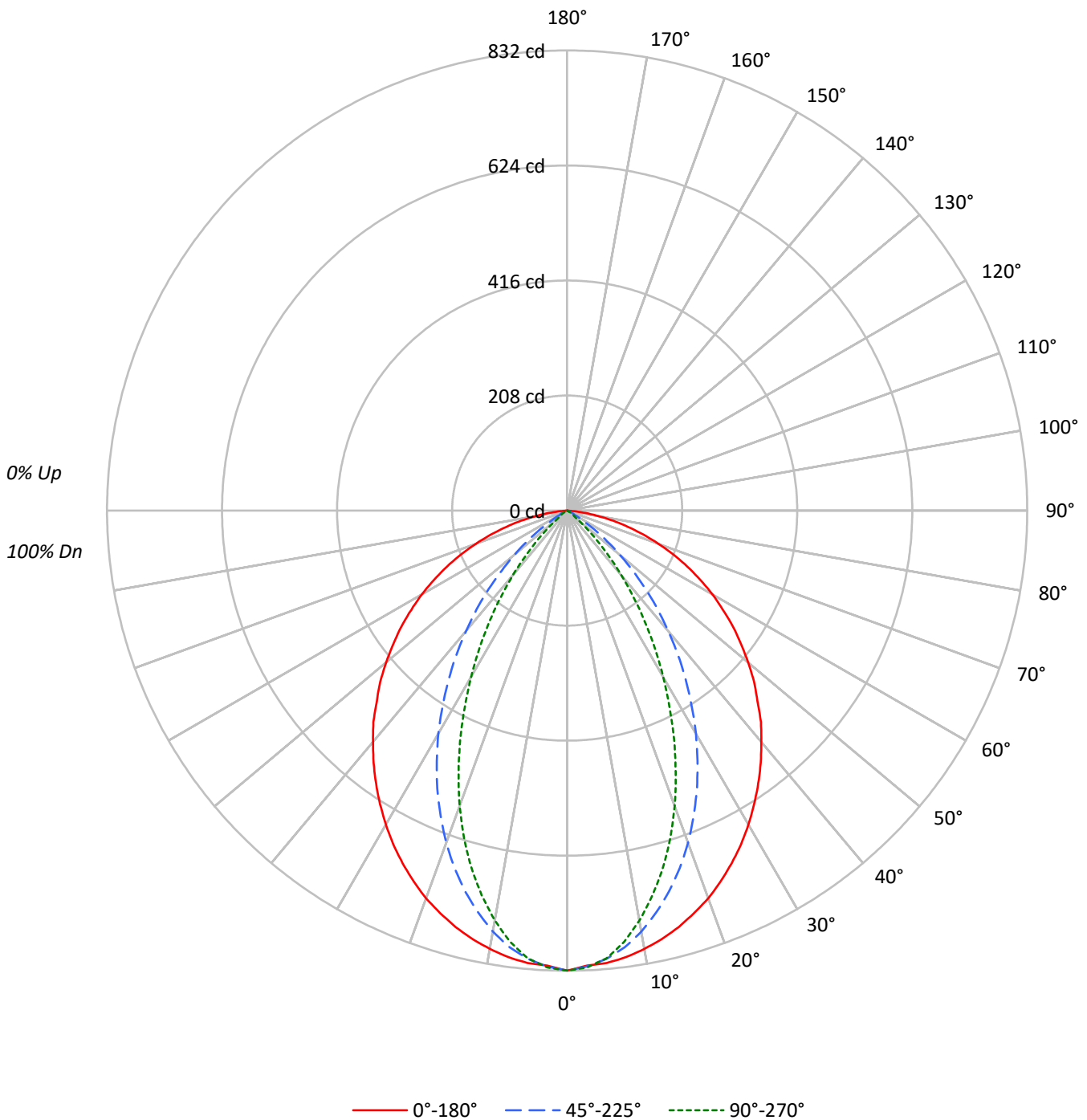
Lumens per Lamp: N/A
Luminaire Lumens: 1162.3 lumens
Efficiency: N/A
Efficacy: 44.0 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 0.81 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
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	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°	7352	7352	7352
5°	7286	7222	7215
10°	7224	6939	6756
15°	7134	6523	6119
20°	7019	6014	5347
25°	6864	5416	4462
30°	6692	4752	3546
35°	6503	4030	2640
40°	6304	3284	1760
45°	6085	2508	969
50°	5876	1715	270
55°	5643	929	176
60°	5363	288	101
65°	5015	188	50
70°	4532	85	21
75°	3898	27	0
80°	2948	0	0
85°	1238	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6085 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.7	6.6
10°-20°	201.4	17.3
20°-30°	260.3	22.4
30°-40°	248.7	21.4
40°-50°	186.0	16.0
50°-60°	110.7	9.5
60°-70°	56.2	4.8
70°-80°	19.5	1.7
80°-90°	2.7	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°	538.4	46.3
0°-40°	787.1	67.7
0°-60°	1083.9	93.3
0°-90°	1162.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1162.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	832	832	832	832	832	
5°	821	828	814	810	813	78
15°	779	763	713	679	668	220
25°	704	655	555	482	457	324
35°	602	519	373	278	245	377
45°	487	373	201	107	78	376
55°	366	228	60	14	11	327
65°	240	92	9	3	2	237
75°	114	12	1	1	0	121
85°	12	0	0	0	0	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	831.6	831.6	831.6	831.6	831.6
2.5°	823.5	833.2	825.1	825.9	826.7
5°	821.0	827.5	813.7	809.6	812.9
7.5°	814.5	816.9	796.5	785.9	786.8
10°	804.7	802.3	772.9	755.0	752.5
12.5°	793.3	785.1	744.4	718.3	712.6
15°	779.4	763.1	712.6	679.1	668.5
17.5°	763.1	739.5	677.5	633.5	620.4
20°	746.0	713.4	639.2	584.6	568.3
22.5°	725.6	684.0	597.6	533.2	512.8
25°	703.6	654.7	555.2	481.8	457.4
27.5°	680.8	622.9	510.4	429.7	401.1
30°	655.5	589.5	465.5	376.7	347.3
32.5°	629.4	555.2	419.1	327.7	295.1
35°	602.5	519.3	373.4	278.0	244.6
37.5°	574.8	483.5	329.4	230.7	196.5
40°	546.2	446.8	284.5	185.9	152.5
42.5°	518.5	410.1	242.1	143.5	112.5
45°	486.7	373.4	200.6	106.8	77.5
47.5°	458.2	337.5	160.6	72.6	45.7
50°	427.2	299.2	124.7	42.4	19.6
52.5°	396.2	263.3	91.3	18.8	14.7
55°	366.1	227.5	60.3	13.9	11.4
57.5°	334.3	191.6	32.6	10.6	8.2
60°	303.3	156.5	16.3	8.2	5.7
62.5°	271.5	123.1	13.0	4.9	3.3
65°	239.7	92.1	9.0	3.3	2.4
67.5°	207.9	62.8	5.7	1.6	0.8
70°	175.3	38.3	3.3	0.8	0.8
72.5°	144.3	19.6	1.6	0.8	0.8
75°	114.1	12.2	0.8	0.8	0.0
77.5°	84.8	6.5	0.8	0.8	0.0
80°	57.9	2.4	0.0	0.0	0.0
82.5°	33.4	0.8	0.0	0.0	0.0
85°	12.2	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	17.39	18.72	17.75	19.03	19.34	0.00	0.00	0.00	0.00	0.00
	3H	18.93	20.11	19.31	20.44	20.80	0.00	0.00	0.00	0.00	0.00
	4H	19.52	20.62	19.93	20.97	21.35	0.00	0.00	0.00	0.00	0.00
	6H	19.94	20.95	20.35	21.32	21.71	0.00	0.00	0.00	0.00	0.00
	8H	20.04	20.99	20.47	21.38	21.79	0.00	0.00	0.00	0.00	0.00
	12H	20.06	20.97	20.49	21.35	21.78	0.00	0.00	0.00	0.00	0.00
4H	2H	17.16	18.26	17.57	18.61	18.99	0.00	0.00	0.00	0.00	0.00
	3H	18.73	19.62	19.14	20.03	20.43	0.00	0.00	0.00	0.00	0.00
	4H	19.31	20.11	19.75	20.53	20.97	0.00	0.00	0.00	0.00	0.00
	6H	19.77	20.46	20.23	20.90	21.37	0.00	0.00	0.00	0.00	0.00
	8H	19.89	20.53	20.36	20.98	21.45	0.00	0.00	0.00	0.00	0.00
	12H	19.93	20.50	20.42	20.98	21.45	0.00	0.00	0.00	0.00	0.00
8H	4H	19.18	19.82	19.64	20.26	20.73	0.00	0.00	0.00	0.00	0.24
	6H	19.62	20.14	20.12	20.63	21.12	0.00	0.00	0.00	0.00	0.09
	8H	19.73	20.20	20.25	20.72	21.21	0.00	0.00	0.00	0.00	0.01
	12H	19.78	20.19	20.30	20.69	21.26	0.00	0.00	0.00	0.00	0.00
12H	4H	19.13	19.69	19.62	20.18	20.65	0.00	0.00	0.00	0.14	0.62
	6H	19.55	20.02	20.08	20.54	21.03	0.00	0.00	0.00	0.00	0.46
	8H	19.69	20.10	20.20	20.60	21.17	0.00	0.00	0.00	0.00	0.42