

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: P1055995

Luminaire Tested: S124R3DR-S1195D930-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055995
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-S1195D930-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

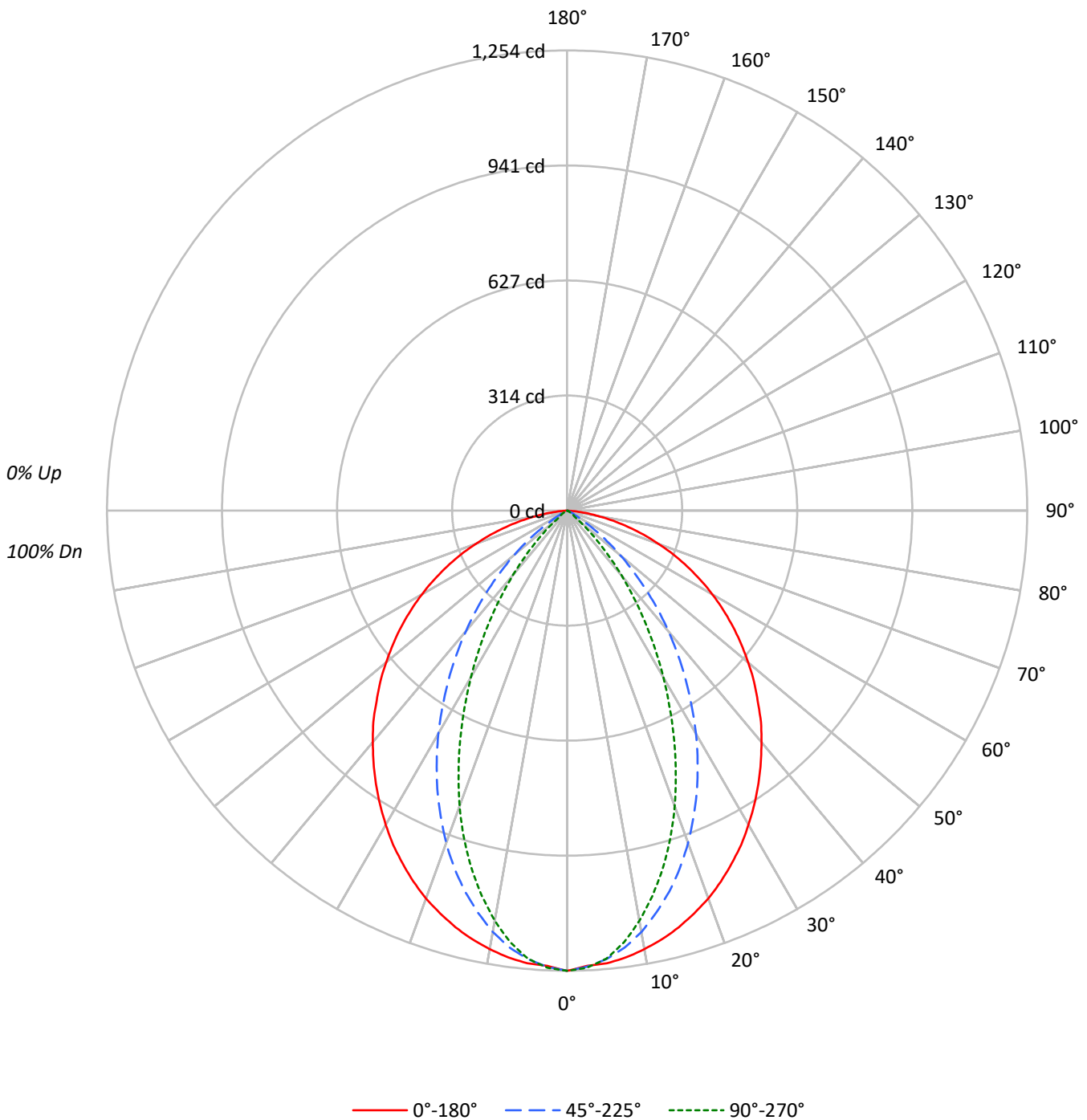
Lumens per Lamp: N/A
Luminaire Lumens: 1752.9 lumens
Efficiency: N/A
Efficacy: 41.8 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 0.81 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 41.9
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°	11089	11089	11089
5°	10989	10891	10880
10°	10895	10465	10189
15°	10760	9837	9229
20°	10586	9070	8063
25°	10351	8169	6729
30°	10093	7168	5348
35°	9808	6079	3982
40°	9508	4952	2653
45°	9179	3782	1460
50°	8862	2587	406
55°	8510	1403	265
60°	8088	435	152
65°	7563	282	77
70°	6835	127	31
75°	5879	41	0
80°	4445	0	0
85°	1867	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9179 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.7	6.6
10°-20°	303.8	17.3
20°-30°	392.5	22.4
30°-40°	375.2	21.4
40°-50°	280.6	16.0
50°-60°	167.0	9.5
60°-70°	84.8	4.8
70°-80°	29.5	1.7
80°-90°	4.0	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°	812.0	46.3
0°-40°	1187.1	67.7
0°-60°	1634.7	93.3
0°-90°	1752.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1752.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1254	1254	1254	1254	1254	
5°	1238	1248	1227	1221	1226	117
15°	1176	1151	1075	1024	1008	331
25°	1061	987	837	727	690	489
35°	909	783	563	419	369	568
45°	734	563	302	161	117	568
55°	552	343	91	21	17	493
65°	362	139	14	5	4	357
75°	172	18	1	1	0	183
85°	18	0	0	0	0	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1254.2	1254.2	1254.2	1254.2	1254.2
2.5°	1241.9	1256.6	1244.3	1245.6	1246.8
5°	1238.2	1248.0	1227.1	1221.0	1225.9
7.5°	1228.4	1232.1	1201.3	1185.3	1186.6
10°	1213.6	1209.9	1165.7	1138.6	1134.9
12.5°	1196.4	1184.1	1122.6	1083.3	1074.7
15°	1175.5	1150.9	1074.7	1024.3	1008.3
17.5°	1150.9	1115.2	1021.8	955.4	935.7
20°	1125.1	1075.9	964.0	881.6	857.0
22.5°	1094.3	1031.6	901.3	804.2	773.4
25°	1061.1	987.4	837.4	726.7	689.8
27.5°	1026.7	939.4	769.7	648.0	605.0
30°	988.6	889.0	702.1	568.1	523.8
32.5°	949.2	837.4	632.0	494.3	445.1
35°	908.7	783.3	563.2	419.3	368.9
37.5°	866.9	729.1	496.8	348.0	296.3
40°	823.8	673.8	429.1	280.3	229.9
42.5°	782.0	618.5	365.2	216.4	169.7
45°	734.1	563.2	302.5	161.1	116.8
47.5°	691.0	509.1	242.2	109.4	68.9
50°	644.3	451.3	188.1	63.9	29.5
52.5°	597.6	397.2	137.7	28.3	22.1
55°	552.1	343.1	91.0	20.9	17.2
57.5°	504.1	289.0	49.2	16.0	12.3
60°	457.4	236.1	24.6	12.3	8.6
62.5°	409.5	185.7	19.7	7.4	4.9
65°	361.5	138.9	13.5	4.9	3.7
67.5°	313.5	94.7	8.6	2.5	1.2
70°	264.4	57.8	4.9	1.2	1.2
72.5°	217.6	29.5	2.5	1.2	1.2
75°	172.1	18.4	1.2	1.2	0.0
77.5°	127.9	9.8	1.2	1.2	0.0
80°	87.3	3.7	0.0	0.0	0.0
82.5°	50.4	1.2	0.0	0.0	0.0
85°	18.4	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	18.81	20.14	19.18	20.46	20.77	0.00	0.00	0.00	0.00	0.00
	3H	20.36	21.53	20.74	21.86	22.23	0.00	0.00	0.00	0.00	0.00
	4H	20.95	22.05	21.35	22.40	22.78	0.00	0.00	0.00	0.00	0.00
	6H	21.37	22.37	21.78	22.74	23.14	0.00	0.00	0.00	0.00	0.00
	8H	21.47	22.42	21.90	22.81	23.21	0.00	0.00	0.00	0.00	0.00
	12H	21.49	22.40	21.92	22.78	23.21	0.00	0.00	0.00	0.00	0.00
4H	2H	18.59	19.69	18.99	20.04	20.42	0.00	0.00	0.00	0.00	0.29
	3H	20.16	21.05	20.57	21.45	21.86	0.00	0.00	0.00	0.00	0.13
	4H	20.74	21.54	21.17	21.96	22.40	0.00	0.00	0.00	0.00	0.03
	6H	21.20	21.89	21.66	22.33	22.80	0.00	0.00	0.00	0.00	0.00
	8H	21.32	21.96	21.79	22.41	22.88	0.00	0.00	0.00	0.00	0.00
	12H	21.36	21.92	21.84	22.41	22.88	0.00	0.00	0.00	0.00	0.00
8H	4H	20.60	21.24	21.07	21.69	22.16	0.11	0.75	0.58	1.19	1.67
	6H	21.04	21.57	21.55	22.06	22.54	0.02	0.54	0.52	1.03	1.52
	8H	21.16	21.63	21.68	22.14	22.64	0.00	0.42	0.48	0.94	1.43
	12H	21.21	21.62	21.72	22.12	22.69	0.00	0.32	0.43	0.82	1.39
12H	4H	20.56	21.12	21.04	21.61	22.08	0.52	1.08	1.00	1.57	2.04
	6H	20.98	21.45	21.50	21.96	22.46	0.41	0.88	0.93	1.39	1.89
	8H	21.12	21.53	21.63	22.02	22.60	0.37	0.78	0.88	1.27	1.85