

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: P1056087

Luminaire Tested: S124R3DR-S795D950-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056087
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: S124R3DR-S795D950-X4F0-XX-UDD-F-W
Description: DEFINE 4, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

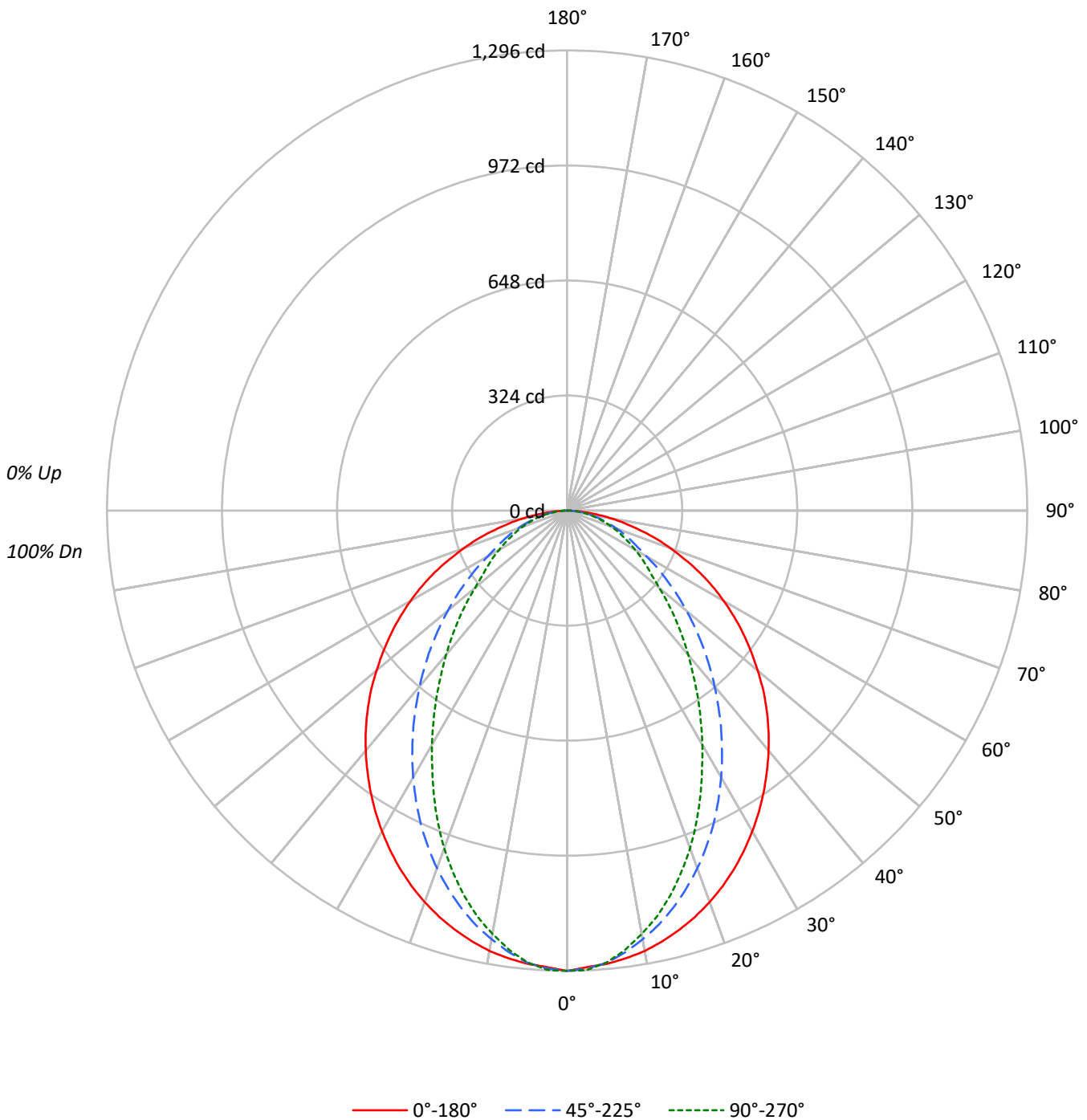
Lumens per Lamp: N/A
Luminaire Lumens: 2582.3 lumens
Efficiency: N/A
Efficacy: 97.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.95 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
Input Voltage (V): 120
Input Current (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	110	105	102	98	107	103	100	97	99	96	93	95	93	91	92	90	88	86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	76	73
3	93	83	75	69	90	81	74	69	79	73	68	76	71	67	73	69	65	63
4	85	74	66	60	83	73	65	60	71	64	59	68	63	58	66	61	57	55
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51	49
6	73	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45	43
7	68	56	47	42	67	55	47	42	53	46	41	52	46	41	51	45	41	39
8	64	51	43	38	62	51	43	38	49	42	37	48	42	37	47	41	37	35
9	60	47	39	34	59	47	39	34	46	39	34	45	38	34	44	38	34	32
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	41	35	31	29

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11463	11463	11463
5°	11371	11346	11337
10°	11306	11006	10868
15°	11186	10592	10269
20°	11040	10089	9524
25°	10861	9511	8655
30°	10645	8853	7772
35°	10420	8165	6920
40°	10185	7455	6122
45°	9937	6763	5380
50°	9631	6036	4645
55°	9338	5309	4220
60°	9008	4555	3913
65°	8603	4132	3653
70°	7990	3823	3454
75°	7235	3519	3259
80°	6314	3253	3060
85°	4839	3003	2810

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9937 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	120.7	4.7
10°-20°	327.4	12.7
20°-30°	453.3	17.6
30°-40°	486.6	18.8
40°-50°	442.5	17.1
50°-60°	348.5	13.5
60°-70°	238.5	9.2
70°-80°	128.4	5.0
80°-90°	36.4	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°	901.5	34.9
0°-40°	1388.1	53.8
0°-60°	2179.0	84.4
0°-90°	2582.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2582.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1296	1296	1296	1296	1296	
5°	1281	1296	1278	1272	1277	122
15°	1222	1209	1157	1126	1122	345
25°	1113	1068	975	904	887	513
35°	965	890	756	665	641	604
45°	795	694	541	447	430	613
55°	606	490	344	278	274	542
65°	411	294	198	176	175	406
75°	212	129	103	94	95	226
85°	48	32	30	28	28	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1296.5	1296.5	1296.5	1296.5	1296.5
2.5°	1286.9	1302.2	1290.8	1292.7	1294.6
5°	1281.2	1295.5	1278.4	1271.7	1277.4
7.5°	1271.7	1281.2	1254.5	1242.1	1247.8
10°	1259.3	1261.2	1225.9	1207.8	1210.6
12.5°	1242.1	1237.3	1194.4	1168.7	1170.6
15°	1222.1	1208.7	1157.2	1125.7	1121.9
17.5°	1199.2	1177.2	1116.2	1076.1	1068.5
20°	1173.4	1143.8	1072.3	1020.8	1012.2
22.5°	1144.8	1106.6	1024.6	963.5	951.1
25°	1113.3	1067.5	975.0	904.4	887.2
27.5°	1079.0	1025.6	921.6	844.3	822.3
30°	1042.7	981.7	867.2	784.2	761.3
32.5°	1005.5	936.8	811.9	724.1	700.2
35°	965.4	890.1	756.5	664.9	641.1
37.5°	924.4	841.4	700.2	607.7	582.9
40°	882.5	792.8	645.9	550.5	530.4
42.5°	839.5	743.2	592.4	497.0	478.9
45°	794.7	693.6	540.9	447.4	430.3
47.5°	748.9	643.0	488.4	400.7	384.5
50°	700.2	592.4	438.8	354.9	337.7
52.5°	653.5	540.9	391.1	310.1	301.5
55°	605.8	490.4	344.4	277.6	273.8
57.5°	558.1	439.8	301.5	251.9	248.0
60°	509.4	390.2	257.6	225.1	221.3
62.5°	460.8	341.5	225.1	199.4	197.5
65°	411.2	293.8	197.5	175.5	174.6
67.5°	358.7	248.0	172.7	154.5	153.6
70°	309.1	202.2	147.9	133.6	133.6
72.5°	262.4	160.3	125.0	113.5	113.5
75°	211.8	128.8	103.0	94.4	95.4
77.5°	167.0	101.1	83.0	77.3	77.3
80°	124.0	75.4	63.9	59.1	60.1
82.5°	84.0	52.5	45.8	42.9	42.9
85°	47.7	32.4	29.6	27.7	27.7
87.5°	17.2	15.3	14.3	12.4	13.4
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	19.62	21.14	19.98	21.45	21.77	15.39	16.92	15.76	17.23	17.55
	3H	21.39	22.76	21.77	23.09	23.45	17.01	18.38	17.38	18.70	19.06
	4H	22.06	23.35	22.46	23.70	24.08	17.64	18.92	18.04	19.27	19.65
	6H	22.57	23.76	22.98	24.13	24.52	18.14	19.32	18.55	19.69	20.08
	8H	22.74	23.87	23.16	24.26	24.66	18.31	19.44	18.73	19.83	20.23
	12H	22.83	23.92	23.27	24.30	24.73	18.43	19.51	18.86	19.89	20.32
4H	2H	19.71	21.00	20.11	21.35	21.72	16.11	17.40	16.51	17.75	18.13
	3H	21.66	22.73	22.07	23.13	23.53	17.92	18.99	18.33	19.39	19.79
	4H	22.41	23.38	22.84	23.79	24.23	18.66	19.62	19.09	20.04	20.47
	6H	23.05	23.89	23.50	24.33	24.79	19.27	20.11	19.73	20.55	21.01
	8H	23.27	24.05	23.73	24.49	24.96	19.49	20.27	19.95	20.72	21.18
	12H	23.42	24.12	23.90	24.60	25.07	19.66	20.36	20.14	20.84	21.31
8H	4H	22.47	23.25	22.93	23.70	24.16	19.05	19.83	19.51	20.27	20.74
	6H	23.17	23.82	23.66	24.31	24.79	19.78	20.43	20.27	20.92	21.39
	8H	23.44	24.02	23.95	24.53	25.02	20.06	20.65	20.58	21.16	21.64
	12H	23.65	24.17	24.16	24.66	25.23	20.31	20.83	20.82	21.32	21.88
12H	4H	22.46	23.16	22.94	23.64	24.11	19.10	19.80	19.58	20.28	20.75
	6H	23.16	23.74	23.67	24.25	24.74	19.86	20.44	20.37	20.95	21.44
	8H	23.47	23.99	23.98	24.48	25.04	20.21	20.72	20.72	21.21	21.78