

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: P1056065

Luminaire Tested: S124R3DR-S795D835-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056065
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-S795D835-X4F0-XX-UDD-F-S
Description: DEFINE 4, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

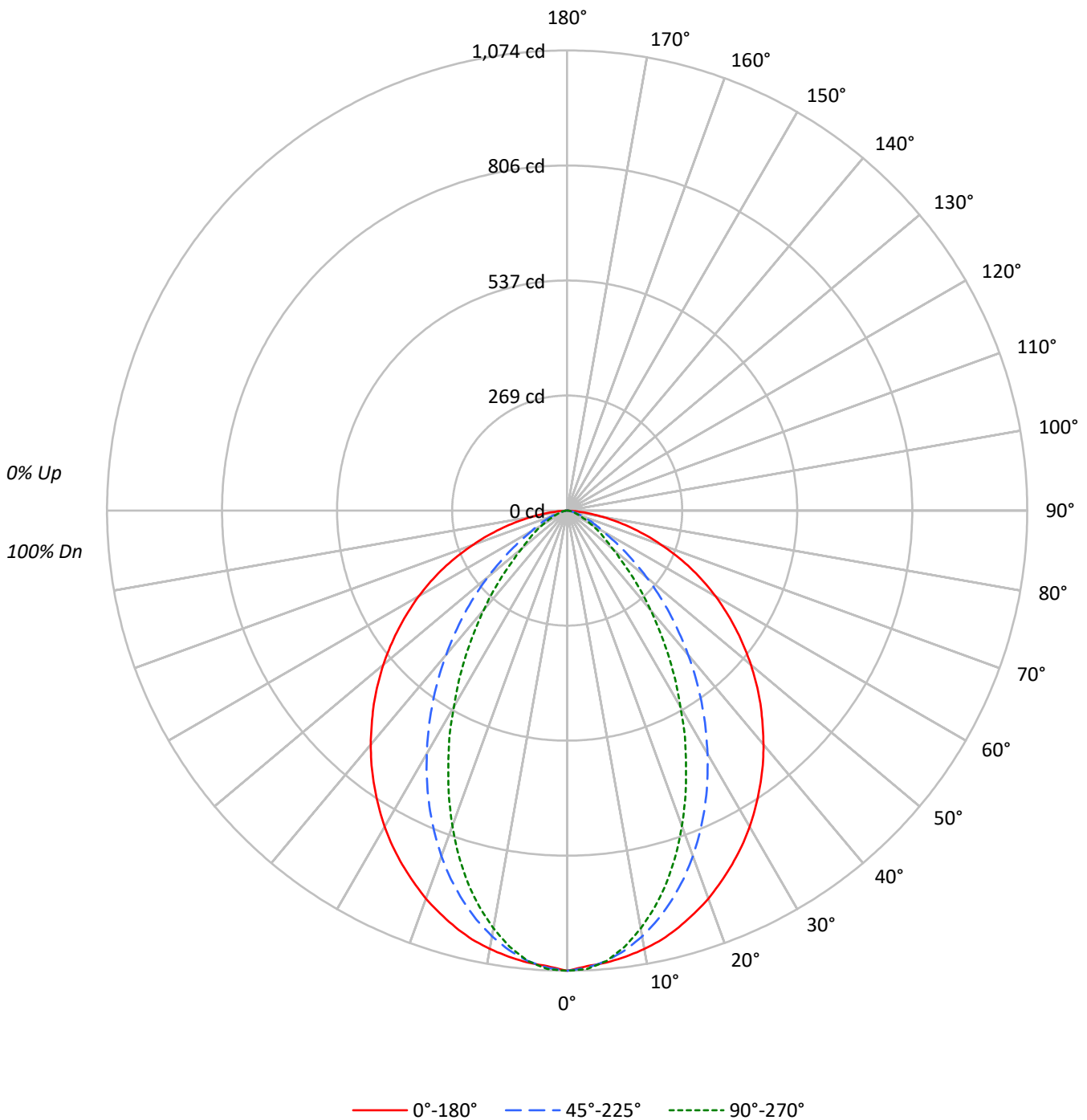
Lumens per Lamp: N/A
Luminaire Lumens: 1736.6 lumens
Efficiency: N/A
Efficacy: 65.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.87 / 1.03
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

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	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°	9496	9496	9496
5°	9399	9363	9363
10°	9328	9059	8888
15°	9217	8622	8220
20°	9070	8073	7367
25°	8887	7424	6400
30°	8698	6687	5390
35°	8473	5904	4436
40°	8229	5067	3497
45°	7977	4214	2613
50°	7703	3315	1912
55°	7399	2451	1526
60°	7073	1698	1167
65°	6653	1318	858
70°	6023	931	672
75°	5261	649	512
80°	4226	509	458
85°	2333	406	406

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7977 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.6	5.7
10°-20°	266.2	15.3
20°-30°	355.0	20.4
30°-40°	357.5	20.6
40°-50°	293.1	16.9
50°-60°	200.4	11.5
60°-70°	112.0	6.4
70°-80°	44.4	2.6
80°-90°	8.4	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°	720.8	41.5
0°-40°	1078.3	62.1
0°-60°	1571.8	90.5
0°-90°	1736.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1736.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1074	1074	1074	1074	1074	
5°	1059	1071	1055	1050	1055	100
15°	1007	996	942	909	898	284
25°	911	866	761	684	656	420
35°	785	702	547	443	411	491
45°	638	521	337	237	209	492
55°	480	337	159	106	99	429
65°	318	160	63	45	41	314
75°	154	42	19	16	15	165
85°	23	4	4	4	4	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1074	1074	1074	1074	1074
2.5°	1064	1077	1068	1069	1071
5°	1059	1071	1055	1050	1055
7.5°	1050	1059	1035	1025	1027
10°	1039	1042	1009	992	990
12.5°	1025	1021	978	953	947
15°	1007	996	942	909	898
17.5°	986	967	902	859	843
20°	964	936	858	803	783
22.5°	938	903	811	744	721
25°	911	866	761	684	656
27.5°	883	828	709	623	595
30°	852	787	655	562	528
32.5°	819	745	601	502	470
35°	785	702	547	443	411
37.5°	750	658	493	387	355
40°	713	613	439	334	303
42.5°	675	567	387	284	255
45°	638	521	337	237	209
47.5°	599	475	288	193	169
50°	560	429	241	155	139
52.5°	520	383	198	127	116
55°	480	337	159	106	99
57.5°	440	291	123	90	82
60°	400	246	96	73	66
62.5°	359	201	79	58	52
65°	318	160	63	45	41
67.5°	277	122	48	35	32
70°	233	87	36	27	26
72.5°	195	59	26	21	20
75°	154	42	19	16	15
77.5°	119	27	14	13	12
80°	83	15	10	9	9
82.5°	51	8	7	6	6
85°	23	4	4	4	4
87.5°	4	2	2	2	2
90°	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	18.54	19.95	18.91	20.26	20.58	9.63	11.04	10.00	11.35	11.67
	3H	20.13	21.38	20.51	21.71	22.07	10.23	11.48	10.60	11.81	12.17
	4H	20.73	21.89	21.13	22.24	22.62	10.38	11.55	10.78	11.90	12.28
	6H	21.16	22.23	21.57	22.60	22.99	10.49	11.57	10.90	11.93	12.33
	8H	21.27	22.29	21.70	22.68	23.08	10.51	11.53	10.94	11.92	12.32
	12H	21.31	22.29	21.74	22.67	23.10	10.52	11.49	10.95	11.88	12.31
4H	2H	18.40	19.57	18.80	19.92	20.30	10.22	11.39	10.62	11.74	12.12
	3H	20.05	21.00	20.46	21.41	21.81	10.93	11.89	11.34	12.29	12.69
	4H	20.65	21.51	21.09	21.93	22.37	11.13	11.99	11.57	12.41	12.85
	6H	21.14	21.89	21.60	22.33	22.79	11.30	12.04	11.76	12.49	12.95
	8H	21.29	21.98	21.75	22.42	22.89	11.33	12.02	11.80	12.47	12.94
	12H	21.36	21.97	21.84	22.45	22.93	11.36	11.97	11.84	12.45	12.93
8H	4H	20.54	21.24	21.01	21.68	22.15	11.41	12.10	11.87	12.54	13.01
	6H	21.03	21.59	21.53	22.09	22.57	11.61	12.18	12.11	12.67	13.15
	8H	21.17	21.68	21.69	22.19	22.68	11.67	12.17	12.19	12.69	13.18
	12H	21.26	21.71	21.77	22.20	22.77	11.73	12.17	12.24	12.67	13.24
12H	4H	20.51	21.12	20.99	21.60	22.07	11.43	12.05	11.92	12.53	13.00
	6H	20.97	21.48	21.49	21.99	22.48	11.64	12.15	12.16	12.66	13.15
	8H	21.14	21.58	21.65	22.08	22.65	11.73	12.18	12.24	12.67	13.24