

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: P1056081

Luminaire Tested: S124R3DR-S795D935-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056081
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-S795D935-X4F0-XX-UDD-F-W
Description: DEFINE 4, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

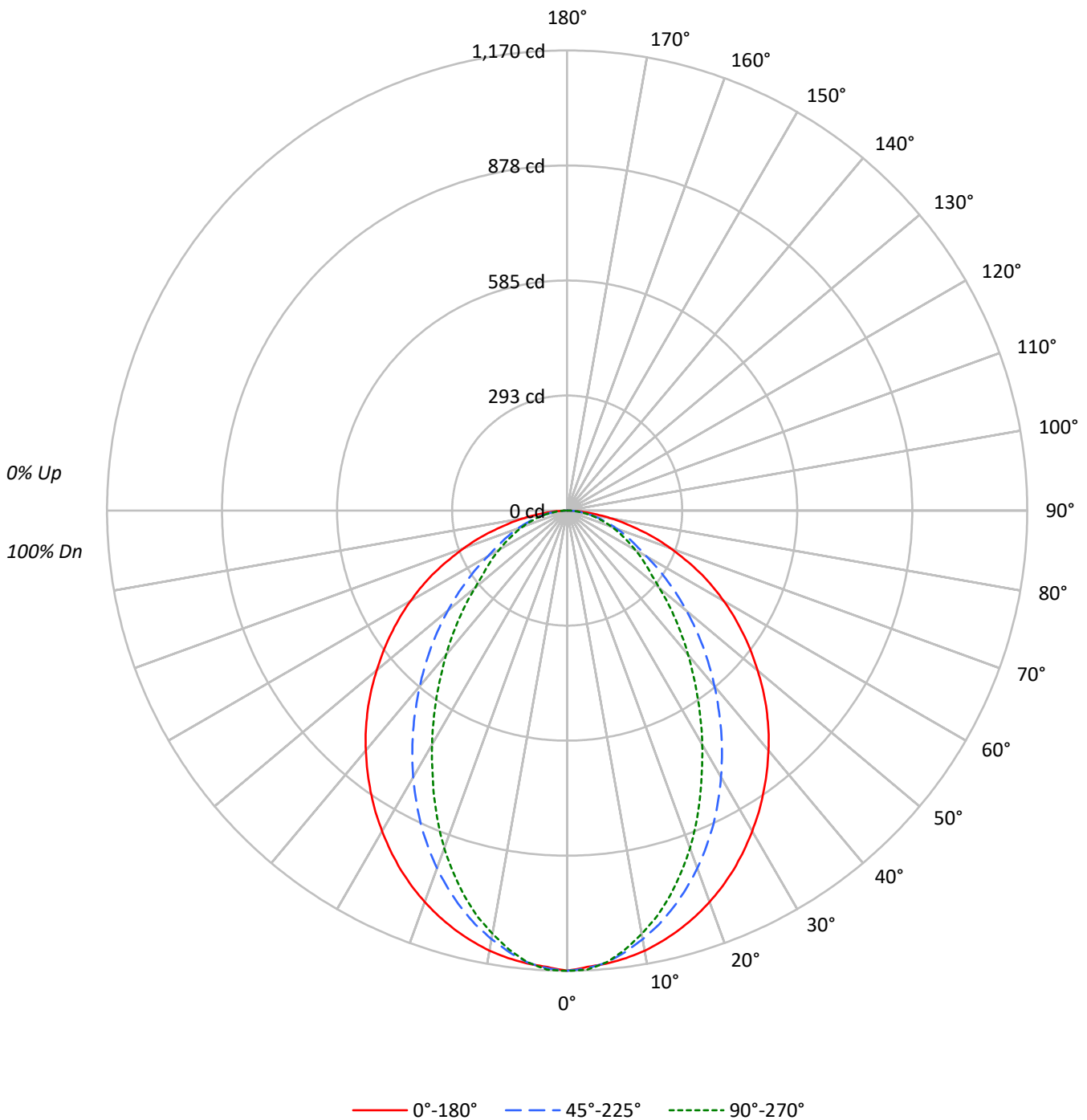
Lumens per Lamp: N/A
Luminaire Lumens: 2330.5 lumens
Efficiency: N/A
Efficacy: 88.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.95 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P1056081

CATALOG NUMBER: S124R3DR-S795D935-X4F0-XX-UDD-F-W

Luminous Intensity Polar Plot



TEST NUMBER: P1056081

CATALOG NUMBER: S124R3DR-S795D935-X4F0-XX-UDD-F-W

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	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°	10345	10345	10345
5°	10262	10239	10232
10°	10203	9933	9809
15°	10095	9560	9268
20°	9964	9106	8595
25°	9802	8584	7811
30°	9608	7990	7015
35°	9404	7370	6245
40°	9192	6728	5525
45°	8968	6104	4855
50°	8693	5448	4192
55°	8427	4791	3809
60°	8131	4111	3533
65°	7764	3728	3297
70°	7212	3451	3115
75°	6528	3177	2941
80°	5697	2938	2760
85°	4362	2709	2536

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8968 cd/sqm



TEST NUMBER: P1056081

CATALOG NUMBER: S124R3DR-S795D935-X4F0-XX-UDD-F-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.9	4.7
10°-20°	295.5	12.7
20°-30°	409.2	17.6
30°-40°	439.2	18.8
40°-50°	399.4	17.1
50°-60°	314.5	13.5
60°-70°	215.2	9.2
70°-80°	115.9	5.0
80°-90°	32.8	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°	813.6	34.9
0°-40°	1252.7	53.8
0°-60°	1966.6	84.4
0°-90°	2330.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2330.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1170	1170	1170	1170	1170	
5°	1156	1169	1154	1148	1153	110
15°	1103	1091	1044	1016	1012	311
25°	1005	964	880	816	801	463
35°	871	803	683	600	579	545
45°	717	626	488	404	388	553
55°	547	443	311	251	247	489
65°	371	265	178	158	158	366
75°	191	116	93	85	86	204
85°	43	29	27	25	25	52
90°	0	0	0	0	0	



TEST NUMBER: P1056081

CATALOG NUMBER: S124R3DR-S795D935-X4F0-XX-UDD-F-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1170.1	<i>1170.1</i>	1170.1	1170.1	1170.1
2.5°	<i>1161.5</i>	<i>1175.3</i>	<i>1164.9</i>	<i>1166.7</i>	<i>1168.4</i>
5°	1156.3	<i>1169.2</i>	1153.7	1147.7	1152.9
7.5°	1147.7	<i>1156.3</i>	1132.2	1121.0	1126.2
10°	1136.5	<i>1138.2</i>	1106.4	1090.0	1092.6
12.5°	1121.0	<i>1116.7</i>	1078.0	1054.7	1056.4
15°	1102.9	<i>1090.9</i>	1044.4	1016.0	1012.5
17.5°	1082.3	<i>1062.5</i>	1007.4	971.2	964.3
20°	1059.0	<i>1032.3</i>	967.8	921.3	913.5
22.5°	1033.2	<i>998.8</i>	924.7	869.6	858.4
25°	1004.8	<i>963.5</i>	879.9	816.2	800.7
27.5°	973.8	<i>925.6</i>	831.7	762.0	742.2
30°	941.1	<i>886.0</i>	782.6	707.7	687.1
32.5°	907.5	<i>845.5</i>	732.7	653.5	632.0
35°	871.3	<i>803.3</i>	682.8	600.1	578.6
37.5°	834.3	<i>759.4</i>	632.0	548.5	526.1
40°	796.4	<i>715.5</i>	582.9	496.8	478.7
42.5°	757.7	<i>670.7</i>	534.7	448.6	432.2
45°	717.2	<i>625.9</i>	488.2	403.8	388.3
47.5°	675.9	<i>580.3</i>	440.8	361.6	347.0
50°	632.0	<i>534.7</i>	396.1	320.3	304.8
52.5°	589.8	<i>488.2</i>	353.0	279.8	272.1
55°	546.7	<i>442.6</i>	310.8	250.6	247.1
57.5°	503.7	<i>396.9</i>	272.1	227.3	223.9
60°	459.8	<i>352.1</i>	232.5	203.2	199.8
62.5°	415.9	<i>308.2</i>	203.2	179.9	178.2
65°	371.1	<i>265.2</i>	178.2	158.4	157.6
67.5°	323.7	<i>223.9</i>	155.8	139.5	138.6
70°	279.0	<i>182.5</i>	133.5	120.5	120.5
72.5°	236.8	<i>144.6</i>	112.8	102.5	102.5
75°	191.1	<i>116.2</i>	93.0	85.2	86.1
77.5°	150.7	<i>91.3</i>	74.9	69.7	69.7
80°	111.9	<i>68.0</i>	57.7	53.4	54.2
82.5°	75.8	<i>47.4</i>	41.3	38.7	38.7
85°	43.0	<i>29.3</i>	26.7	25.0	25.0
87.5°	15.5	<i>13.8</i>	12.9	11.2	12.1
90°	0.0	<i>0.0</i>	0.0	0.0	0.0



TEST NUMBER: P1056081
 CATALOG NUMBER: S124R3DR-S795D935-X4F0-XX-UDD-F-W

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	19.26	20.78	19.62	21.10	21.41	15.04	16.56	15.40	16.88	17.19
	3H	21.03	22.40	21.41	22.73	23.09	16.65	18.02	17.03	18.35	18.71
	4H	21.71	22.99	22.11	23.34	23.72	17.28	18.57	17.68	18.91	19.29
	6H	22.22	23.40	22.63	23.77	24.16	17.78	18.97	18.19	19.33	19.72
	8H	22.38	23.51	22.80	23.90	24.30	17.95	19.08	18.37	19.47	19.87
	12H	22.48	23.56	22.91	23.94	24.37	18.07	19.15	18.50	19.54	19.97
4H	2H	19.35	20.64	19.75	20.99	21.37	15.76	17.04	16.15	17.39	17.77
	3H	21.30	22.37	21.71	22.77	23.17	17.56	18.63	17.97	19.03	19.43
	4H	22.05	23.02	22.49	23.43	23.87	18.30	19.26	18.73	19.68	20.12
	6H	22.69	23.53	23.15	23.97	24.43	18.92	19.75	19.37	20.20	20.66
	8H	22.91	23.69	23.37	24.14	24.61	19.13	19.92	19.59	20.36	20.83
	12H	23.06	23.77	23.55	24.24	24.71	19.30	20.00	19.78	20.48	20.95
8H	4H	22.11	22.90	22.58	23.34	23.81	18.69	19.47	19.15	19.92	20.38
	6H	22.81	23.46	23.31	23.95	24.43	19.42	20.07	19.92	20.56	21.04
	8H	23.08	23.66	23.59	24.17	24.66	19.71	20.29	20.22	20.80	21.29
	12H	23.30	23.81	23.81	24.30	24.87	19.95	20.47	20.46	20.96	21.52
12H	4H	22.10	22.81	22.59	23.28	23.75	18.74	19.45	19.23	19.92	20.39
	6H	22.80	23.39	23.32	23.90	24.39	19.50	20.09	20.02	20.60	21.08
	8H	23.11	23.63	23.62	24.12	24.68	19.85	20.37	20.36	20.86	21.42