

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: P1217361

Luminaire Tested: S124DRP-H290D935-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217361
TEST IS SCALED FROM IESNA LM-79-24 TEST DATA (G2-2509-563-3)
Test Lab: INNOVATION CENTER
Issue Date: 4/9/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DRP-H290D935-X4F0-XX-UDD-G-W
Description: DEFINE 4, DIRECT RECESSED WITH GRAZE FLUSH OPTIC
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

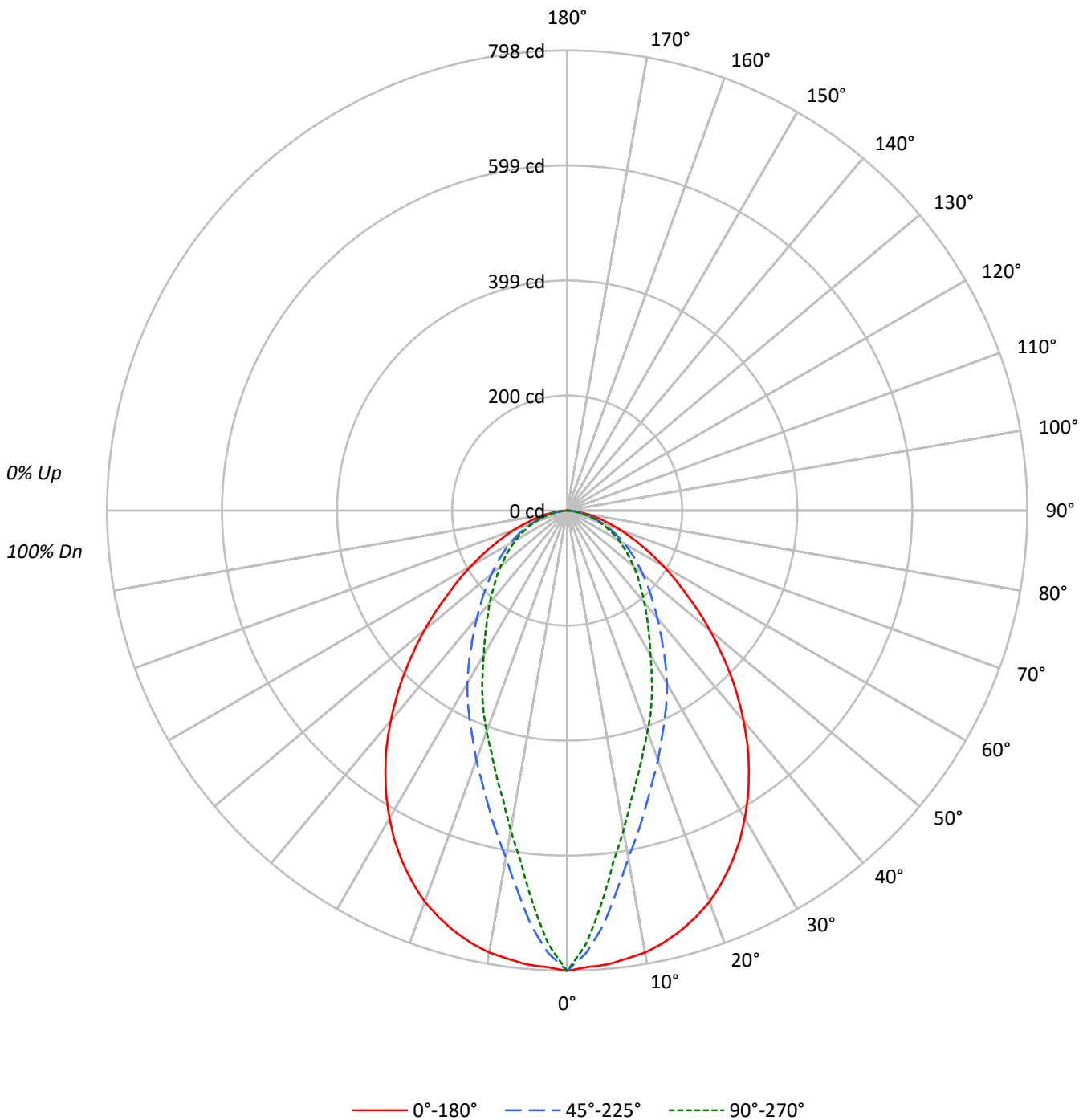
Lumens per Lamp: N/A
Luminaire Lumens: 1119.4 lumens
Efficiency: N/A
Efficacy: 95.7 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.59 / 0.87
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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	110	106	102	99	108	104	100	97	100	97	94	96	94	92	92	90	89	87
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	75
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65
4	87	76	68	62	84	75	67	62	72	66	61	70	64	60	68	63	59	57
5	80	69	61	55	78	68	60	54	66	59	54	64	58	53	62	57	53	51
6	75	63	55	49	73	62	54	49	60	53	48	58	52	48	57	52	47	45
7	70	58	50	44	68	57	49	44	55	48	43	54	48	43	53	47	43	41
8	66	53	45	40	64	52	45	40	51	44	40	50	44	39	49	43	39	37
9	62	49	42	36	60	49	41	36	48	41	36	47	40	36	46	40	36	34
10	58	46	38	34	57	45	38	34	44	38	33	43	37	33	43	37	33	31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7057	7057	7057
5°	7015	6401	6067
10°	6986	5487	5048
15°	6913	4842	4343
20°	6792	4332	3836
25°	6576	3898	3398
30°	6287	3534	2949
35°	5929	3133	2640
40°	5493	2807	2405
45°	4993	2553	2219
50°	4447	2349	2074
55°	3878	2183	1939
60°	3406	2032	1827
65°	2948	1874	1705
70°	2554	1698	1572
75°	2125	1500	1380
80°	1645	1217	1125
85°	1035	822	751

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4993 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.8	6.0
10°-20°	158.7	14.2
20°-30°	202.8	18.1
30°-40°	206.0	18.4
40°-50°	182.6	16.3
50°-60°	143.5	12.8
60°-70°	97.7	8.7
70°-80°	50.2	4.5
80°-90°	11.1	1.0
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°	428.3	38.3
0°-40°	634.3	56.7
0°-60°	960.4	85.8
0°-90°	1119.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1119.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	798	798	798	798	798	
5°	790	770	721	693	684	75
15°	755	630	529	485	474	213
25°	674	494	400	361	348	310
35°	549	374	290	253	245	343
45°	399	270	204	183	178	308
55°	252	180	142	129	126	227
65°	141	109	90	83	82	141
75°	62	51	44	42	40	67
85°	10	10	8	8	7	14
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	798.2	798.2	798.2	798.2	798.2
2.5°	792.6	793.6	767.2	757.8	752.1
5°	790.4	770.4	721.2	693.4	683.6
7.5°	784.1	740.5	662.9	624.6	614.4
10°	778.1	706.4	611.2	573.2	562.3
12.5°	768.3	668.8	569.7	526.1	513.1
15°	755.3	630.5	529.0	485.4	474.5
17.5°	739.8	594.0	492.1	450.2	438.3
20°	721.9	560.2	460.4	417.5	407.7
22.5°	699.4	526.8	428.1	389.4	378.5
25°	674.1	494.2	399.6	361.3	348.3
27.5°	647.0	462.5	373.3	330.7	317.0
30°	615.8	432.3	346.2	301.6	288.9
32.5°	584.1	402.4	317.7	275.5	265.4
35°	549.3	374.3	290.3	253.4	244.6
37.5°	514.2	347.2	265.7	233.4	225.6
40°	475.9	320.9	243.2	214.7	208.4
42.5°	437.6	294.5	222.8	198.2	192.3
45°	399.3	269.6	204.2	183.1	177.5
47.5°	360.6	245.0	187.0	168.4	163.8
50°	323.3	221.8	170.8	154.6	150.8
52.5°	287.1	200.0	155.3	141.6	137.4
55°	251.6	179.6	141.6	129.0	125.8
57.5°	221.4	160.6	127.9	117.0	114.6
60°	192.6	142.3	114.9	105.8	103.3
62.5°	165.5	125.5	101.9	94.5	92.8
65°	140.9	109.0	89.6	83.3	81.5
67.5°	118.4	93.8	77.0	72.4	71.0
70°	98.8	78.7	65.7	61.9	60.8
72.5°	79.1	64.3	54.5	51.7	50.6
75°	62.2	51.3	43.9	41.8	40.4
77.5°	46.7	39.0	33.7	32.0	30.9
80°	32.3	27.8	23.9	23.2	22.1
82.5°	20.4	17.6	15.5	15.1	14.1
85°	10.2	9.5	8.1	8.1	7.4
87.5°	3.5	3.2	3.2	3.2	2.8
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	15.69	17.18	16.06	17.49	17.81	13.02	14.50	13.38	14.82	15.13
	3H	17.28	18.62	17.66	18.95	19.31	14.62	15.95	14.99	16.28	16.64
	4H	17.81	19.06	18.21	19.41	19.79	15.17	16.42	15.57	16.77	17.15
	6H	18.15	19.30	18.56	19.67	20.06	15.53	16.68	15.94	17.05	17.44
	8H	18.22	19.32	18.65	19.71	20.11	15.62	16.71	16.04	17.10	17.51
	12H	18.25	19.30	18.68	19.69	20.12	15.65	16.70	16.08	17.09	17.52
4H	2H	15.92	17.17	16.32	17.52	17.90	13.69	14.94	14.09	15.29	15.67
	3H	17.70	18.74	18.12	19.14	19.54	15.48	16.52	15.89	16.92	17.32
	4H	18.34	19.28	18.78	19.69	20.13	16.14	17.08	16.58	17.49	17.93
	6H	18.79	19.60	19.25	20.04	20.50	16.60	17.41	17.06	17.85	18.32
	8H	18.90	19.66	19.37	20.10	20.57	16.72	17.47	17.18	17.92	18.39
	12H	18.96	19.63	19.44	20.11	20.59	16.78	17.45	17.26	17.93	18.40
8H	4H	18.45	19.20	18.91	19.65	20.12	16.44	17.20	16.91	17.65	18.11
	6H	18.97	19.59	19.46	20.08	20.56	16.99	17.62	17.49	18.11	18.59
	8H	19.12	19.68	19.64	20.19	20.68	17.16	17.72	17.68	18.23	18.72
	12H	19.22	19.72	19.73	20.21	20.77	17.27	17.76	17.78	18.25	18.82
12H	4H	18.44	19.11	18.92	19.59	20.06	16.47	17.14	16.95	17.62	18.09
	6H	18.96	19.52	19.48	20.03	20.52	17.03	17.59	17.55	18.10	18.59
	8H	19.15	19.65	19.66	20.14	20.70	17.24	17.74	17.76	18.23	18.80