

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: P1217406

Luminaire Tested: S124DRP-S290D935-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217406
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-S290D935-X4F0-XX-UDD-G-W
Description: DEFINE 4, DIRECT RECESSED WITH GRAZE FLUSH OPTIC
CORE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

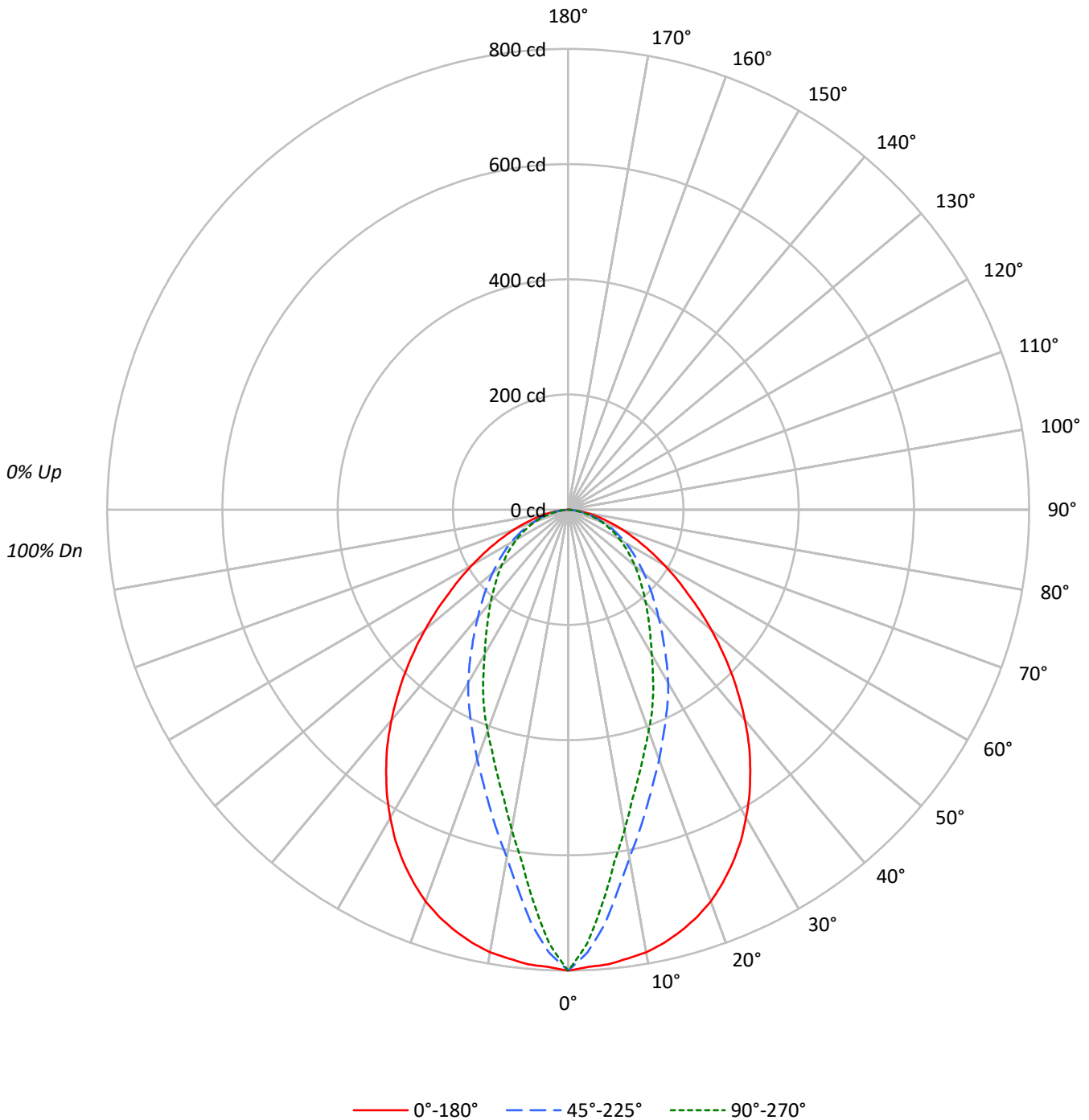
Lumens per Lamp: N/A
Luminaire Lumens: 1122.2 lumens
Efficiency: N/A
Efficacy: 89.1 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.59 / 0.87
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 12.6
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	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					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°	7074	7074	7074
5°	7033	6417	6082
10°	7004	5501	5061
15°	6931	4854	4353
20°	6809	4343	3845
25°	6593	3908	3407
30°	6302	3543	2957
35°	5944	3141	2647
40°	5506	2814	2411
45°	5004	2559	2224
50°	4458	2355	2078
55°	3889	2189	1944
60°	3415	2037	1832
65°	2956	1879	1709
70°	2559	1704	1577
75°	2132	1503	1383
80°	1650	1222	1130
85°	1035	822	751

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5004 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.0	6.0
10°-20°	159.1	14.2
20°-30°	203.3	18.1
30°-40°	206.5	18.4
40°-50°	183.0	16.3
50°-60°	143.8	12.8
60°-70°	98.0	8.7
70°-80°	50.3	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°	429.4	38.3
0°-40°	635.9	56.7
0°-60°	962.8	85.8
0°-90°	1122.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1122.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	800	800	800	800	800	
5°	792	772	723	695	685	75
15°	757	632	530	487	476	213
25°	676	495	401	362	349	311
35°	551	375	291	254	245	344
45°	400	270	205	184	178	308
55°	252	180	142	129	126	228
65°	141	109	90	84	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°	800.1	800.1	800.1	800.1	800.1
2.5°	794.5	795.6	769.1	759.6	754.0
5°	792.4	772.3	723.0	695.1	685.3
7.5°	786.0	742.4	664.5	626.1	615.9
10°	780.1	708.2	612.7	574.6	563.7
12.5°	770.2	670.5	571.1	527.4	514.4
15°	757.2	632.1	530.3	486.6	475.6
17.5°	741.7	595.4	493.3	451.3	439.4
20°	723.7	561.6	461.6	418.6	408.7
22.5°	701.1	528.1	429.1	390.4	379.5
25°	675.8	495.4	400.6	362.2	349.2
27.5°	648.6	463.7	374.2	331.5	317.8
30°	617.3	433.4	347.0	302.3	289.6
32.5°	585.6	403.4	318.5	276.2	266.0
35°	550.7	375.2	291.0	254.0	245.2
37.5°	515.5	348.1	266.4	233.9	226.2
40°	477.1	321.7	243.8	215.3	208.9
42.5°	438.6	295.3	223.4	198.7	192.7
45°	400.2	270.2	204.7	183.6	177.9
47.5°	361.5	245.6	187.4	168.8	164.2
50°	324.1	222.3	171.2	155.0	151.1
52.5°	287.9	200.5	155.7	142.0	137.8
55°	252.3	180.0	142.0	129.3	126.1
57.5°	222.0	161.0	128.2	117.3	114.9
60°	193.1	142.7	115.2	106.1	103.6
62.5°	165.9	125.8	102.2	94.8	93.0
65°	141.3	109.2	89.8	83.5	81.7
67.5°	118.7	94.1	77.2	72.6	71.2
70°	99.0	78.9	65.9	62.0	61.0
72.5°	79.3	64.5	54.6	51.8	50.7
75°	62.4	51.4	44.0	41.9	40.5
77.5°	46.9	39.1	33.8	32.1	31.0
80°	32.4	27.8	24.0	23.3	22.2
82.5°	20.4	17.6	15.5	15.2	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	15.70	17.19	16.07	17.50	17.82	13.03	14.51	13.39	14.83	15.14
	3H	17.29	18.63	17.67	18.96	19.32	14.63	15.96	15.00	16.29	16.65
	4H	17.82	19.07	18.22	19.42	19.80	15.18	16.43	15.58	16.78	17.16
	6H	18.16	19.31	18.57	19.68	20.07	15.54	16.69	15.95	17.06	17.45
	8H	18.23	19.33	18.66	19.72	20.12	15.63	16.72	16.05	17.11	17.52
	12H	18.26	19.31	18.69	19.70	20.12	15.66	16.71	16.09	17.10	17.52
4H	2H	15.93	17.18	16.33	17.53	17.91	13.70	14.95	14.10	15.30	15.68
	3H	17.71	18.75	18.12	19.15	19.55	15.49	16.53	15.90	16.93	17.33
	4H	18.35	19.29	18.79	19.70	20.14	16.15	17.09	16.59	17.50	17.94
	6H	18.80	19.61	19.26	20.05	20.51	16.61	17.42	17.07	17.86	18.32
	8H	18.91	19.67	19.38	20.11	20.58	16.73	17.48	17.19	17.93	18.40
	12H	18.97	19.64	19.45	20.12	20.59	16.79	17.46	17.27	17.94	18.41
8H	4H	18.46	19.21	18.92	19.66	20.13	16.45	17.21	16.92	17.65	18.12
	6H	18.98	19.60	19.47	20.09	20.57	17.00	17.63	17.50	18.12	18.60
	8H	19.13	19.69	19.65	20.20	20.69	17.17	17.73	17.69	18.24	18.73
	12H	19.23	19.72	19.74	20.22	20.78	17.28	17.77	17.79	18.26	18.83
12H	4H	18.45	19.12	18.93	19.60	20.07	16.48	17.15	16.96	17.63	18.10
	6H	18.97	19.53	19.48	20.04	20.53	17.04	17.60	17.56	18.11	18.60
	8H	19.16	19.65	19.67	20.15	20.71	17.25	17.75	17.77	18.24	18.81