

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: P1217402

Luminaire Tested: S124DRP-S290D840-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217402
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-S290D840-X4F0-XX-UDD-G-W
Description: DEFINE 4, DIRECT RECESSED WITH GRAZE FLUSH OPTIC
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

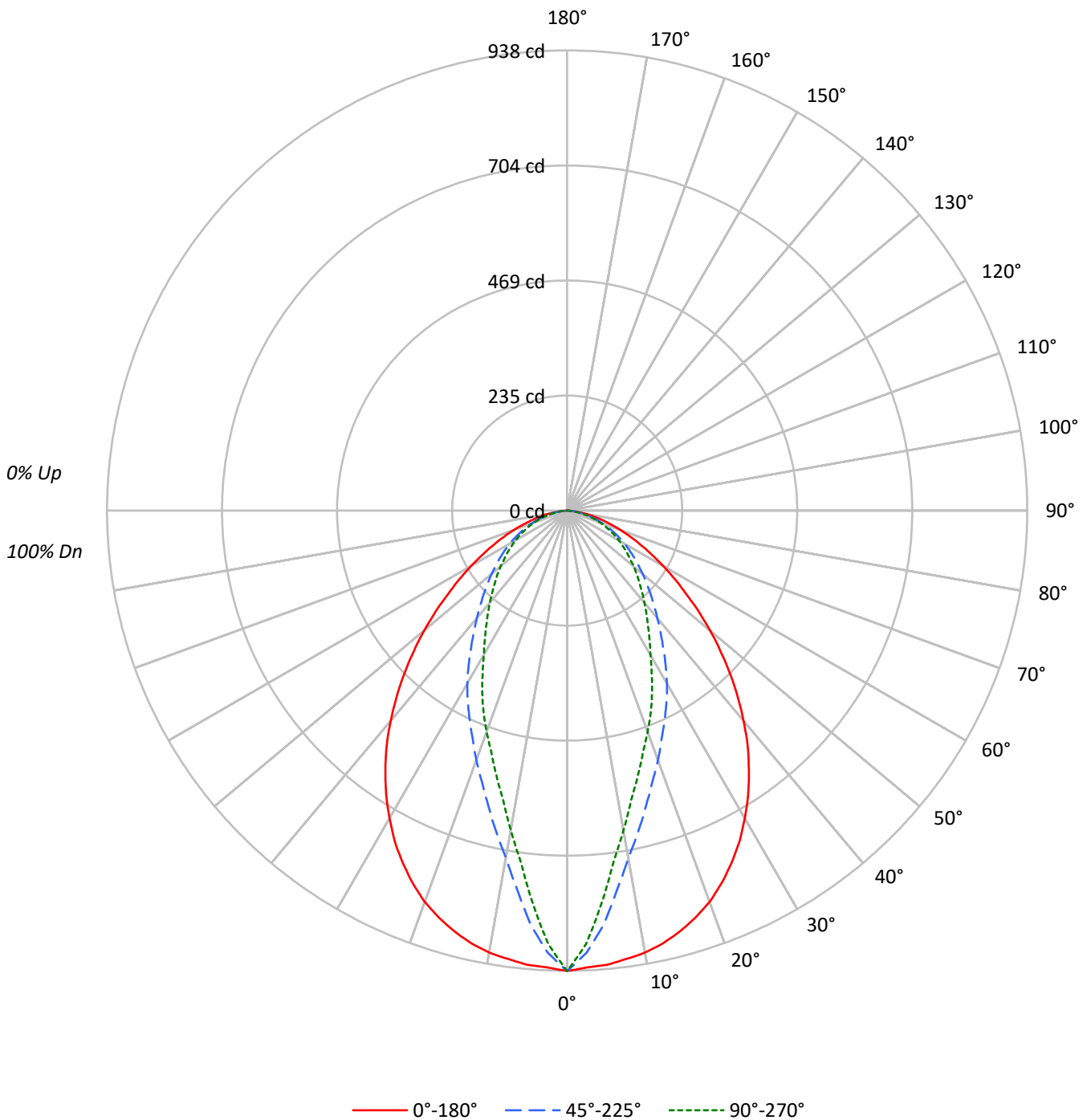
Lumens per Lamp: N/A
Luminaire Lumens: 1316.2 lumens
Efficiency: N/A
Efficacy: 104.5 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.59 / 0.87
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 12.6
Input Voltage (V): 120
Input Current (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	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									87																			
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	75									75																			
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65									65																			
4	87	76	68	62	84	75	67	62	72	66	61	70	64	60	68	63	59	57									57																			
5	80	69	61	55	78	68	60	54	66	59	54	64	58	53	62	57	53	51									51																			
6	75	63	55	49	73	62	54	49	60	53	48	58	52	48	57	52	47	45									45																			
7	70	58	50	44	68	57	49	44	55	48	43	54	48	43	53	47	43	41									41																			
8	66	53	45	40	64	52	45	40	51	44	40	50	44	39	49	43	39	37									37																			
9	62	49	42	36	60	49	41	36	48	41	36	47	40	36	46	40	36	34									34																			
10	58	46	38	34	57	45	38	34	44	38	33	43	37	33	43	37	33	31									31																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8298	8298	8298
5°	8249	7526	7134
10°	8214	6451	5936
15°	8129	5692	5107
20°	7986	5094	4511
25°	7732	4584	3995
30°	7391	4155	3468
35°	6971	3684	3104
40°	6458	3301	2829
45°	5869	3002	2610
50°	5230	2762	2439
55°	4561	2567	2280
60°	4005	2389	2148
65°	3467	2205	2006
70°	3001	1998	1848
75°	2497	1766	1623
80°	1935	1431	1324
85°	1217	964	883

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5869 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.6	6.0
10°-20°	186.6	14.2
20°-30°	238.5	18.1
30°-40°	242.2	18.4
40°-50°	214.7	16.3
50°-60°	168.7	12.8
60°-70°	114.9	8.7
70°-80°	59.0	4.5
80°-90°	13.1	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°	503.6	38.3
0°-40°	745.8	56.7
0°-60°	1129.3	85.8
0°-90°	1316.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1316.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	938	938	938	938	938	
5°	929	906	848	815	804	88
15°	888	741	622	571	558	250
25°	793	581	470	425	410	364
35°	646	440	341	298	288	403
45°	469	317	240	215	209	362
55°	296	211	166	152	148	267
65°	166	128	105	98	96	166
75°	73	60	52	49	48	79
85°	12	11	10	10	9	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	938.5	938.5	938.5	938.5	938.5
2.5°	931.9	933.1	902.1	891.0	884.3
5°	929.4	905.8	848.0	815.3	803.8
7.5°	922.0	870.7	779.4	734.3	722.4
10°	914.9	830.6	718.6	674.0	661.2
12.5°	903.4	786.4	669.9	618.6	603.3
15°	888.1	741.4	621.9	570.7	557.9
17.5°	869.9	698.4	578.5	529.4	515.3
20°	848.8	658.7	541.4	490.9	479.4
22.5°	822.4	619.5	503.3	457.9	445.1
25°	792.6	581.0	469.9	424.8	409.5
27.5°	760.8	543.8	438.9	388.9	372.7
30°	724.0	508.3	407.0	354.6	339.7
32.5°	686.8	473.2	373.6	324.0	312.0
35°	645.9	440.1	341.3	298.0	287.6
37.5°	604.6	408.3	312.4	274.4	265.3
40°	559.5	377.3	286.0	252.5	245.1
42.5°	514.5	346.3	262.0	233.1	226.0
45°	469.4	317.0	240.1	215.3	208.7
47.5°	424.0	288.0	219.8	197.9	192.6
50°	380.2	260.8	200.8	181.8	177.3
52.5°	337.6	235.1	182.7	166.5	161.6
55°	295.9	211.2	166.5	151.7	147.9
57.5°	260.3	188.9	150.4	137.6	134.7
60°	226.5	167.4	135.1	124.4	121.5
62.5°	194.6	147.5	119.8	111.2	109.1
65°	165.7	128.1	105.4	97.9	95.9
67.5°	139.3	110.3	90.5	85.1	83.5
70°	116.1	92.6	77.3	72.7	71.5
72.5°	93.0	75.6	64.1	60.7	59.5
75°	73.1	60.3	51.7	49.2	47.5
77.5°	55.0	45.9	39.7	37.6	36.4
80°	38.0	32.6	28.1	27.3	26.0
82.5°	24.0	20.7	18.2	17.8	16.5
85°	12.0	11.2	9.5	9.5	8.7
87.5°	4.1	3.7	3.7	3.7	3.3
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	16.26	17.74	16.62	18.06	18.37	13.58	15.07	13.95	15.38	15.70
	3H	17.85	19.18	18.23	19.51	19.87	15.18	16.51	15.56	16.84	17.20
	4H	18.38	19.63	18.78	19.98	20.36	15.74	16.99	16.14	17.34	17.72
	6H	18.71	19.86	19.12	20.23	20.62	16.09	17.25	16.51	17.61	18.01
	8H	18.79	19.89	19.22	20.28	20.68	16.18	17.28	16.61	17.67	18.07
	12H	18.82	19.87	19.25	20.25	20.68	16.22	17.27	16.65	17.65	18.08
4H	2H	16.49	17.74	16.89	18.08	18.46	14.26	15.51	14.66	15.86	16.23
	3H	18.27	19.31	18.68	19.71	20.11	16.04	17.08	16.46	17.48	17.88
	4H	18.91	19.84	19.34	20.26	20.70	16.71	17.64	17.14	18.06	18.50
	6H	19.35	20.16	19.81	20.61	21.07	17.16	17.97	17.62	18.42	18.88
	8H	19.47	20.22	19.93	20.67	21.14	17.28	18.04	17.74	18.48	18.95
	12H	19.52	20.20	20.01	20.68	21.15	17.34	18.02	17.82	18.50	18.97
8H	4H	19.01	19.77	19.48	20.21	20.68	17.01	17.76	17.47	18.21	18.68
	6H	19.53	20.15	20.03	20.65	21.12	17.56	18.18	18.06	18.67	19.15
	8H	19.69	20.24	20.20	20.76	21.24	17.73	18.28	18.24	18.79	19.28
	12H	19.79	20.28	20.30	20.77	21.34	17.83	18.32	18.34	18.82	19.38
12H	4H	19.00	19.68	19.49	20.16	20.63	17.03	17.71	17.51	18.18	18.66
	6H	19.52	20.08	20.04	20.59	21.08	17.59	18.15	18.11	18.66	19.15
	8H	19.72	20.21	20.23	20.70	21.27	17.81	18.30	18.32	18.79	19.36