

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: P1217431

Luminaire Tested: S124DRP-S865D927-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217431
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-S865D927-X4F0-XX-UDD-G-W
Description: DEFINE 4, DIRECT RECESSED WITH GRAZE FLUSH OPTIC
CORE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

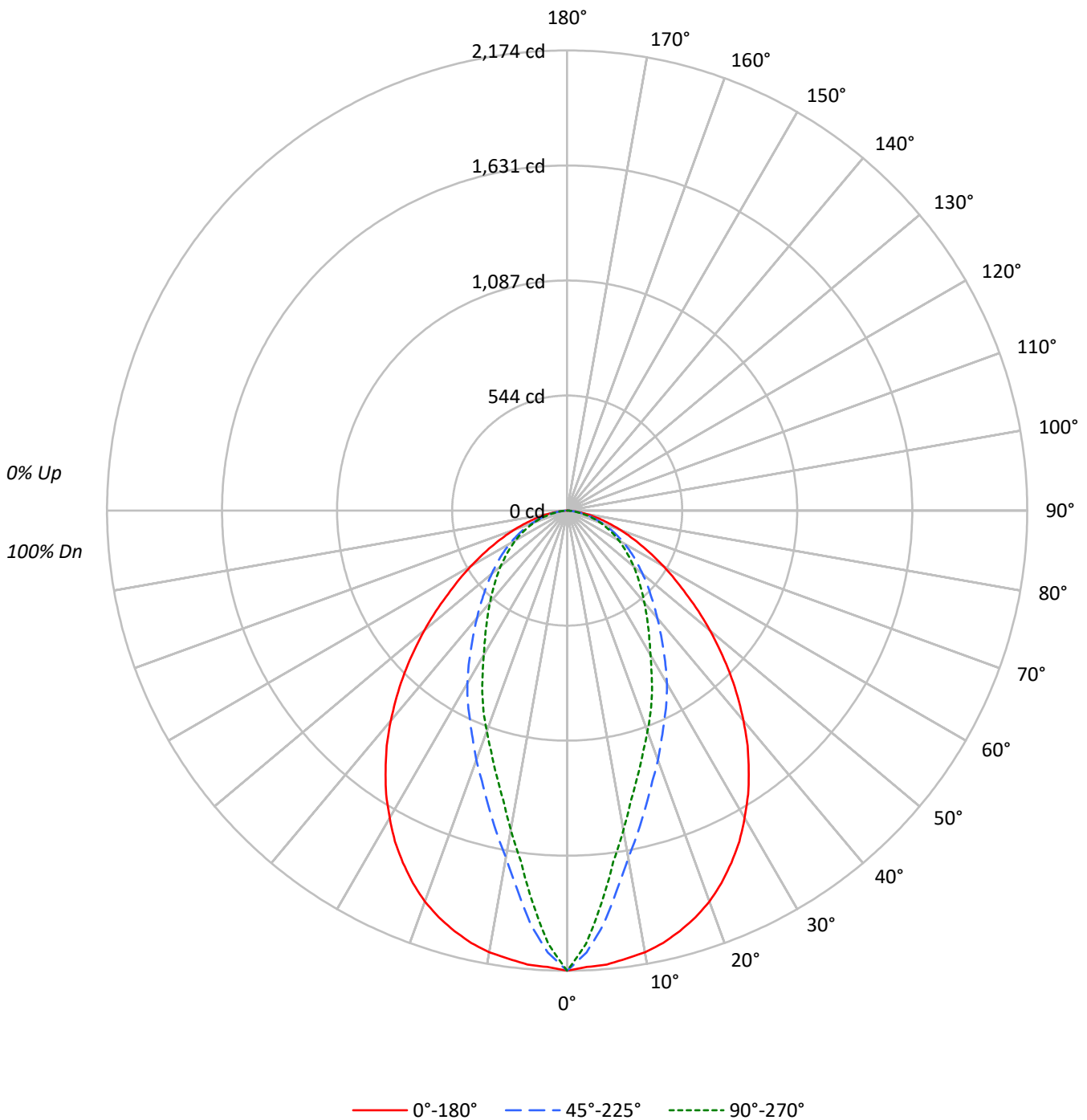
Lumens per Lamp: N/A
Luminaire Lumens: 3048.3 lumens
Efficiency: N/A
Efficacy: 87.8 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.59 / 0.87
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 34.7
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	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°	19217	19217	19217
5°	19104	17430	16521
10°	19024	14943	13748
15°	18826	13184	11827
20°	18496	11797	10446
25°	17908	10616	9253
30°	17119	9624	8032
35°	16146	8532	7189
40°	14957	7644	6550
45°	13594	6953	6043
50°	12111	6397	5648
55°	10564	5945	5281
60°	9275	5535	4976
65°	8029	5107	4644
70°	6951	4627	4281
75°	5787	4086	3761
80°	4486	3315	3070
85°	2820	2232	2039

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 13594 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	181.9	6.0
10°-20°	432.2	14.2
20°-30°	552.3	18.1
30°-40°	560.9	18.4
40°-50°	497.2	16.3
50°-60°	390.7	12.8
60°-70°	266.1	8.7
70°-80°	136.6	4.5
80°-90°	30.3	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°	1166.4	38.3
0°-40°	1727.4	56.7
0°-60°	2615.4	85.8
0°-90°	3048.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3048.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2174	2174	2174	2174	2174	
5°	2152	2098	1964	1888	1862	204
15°	2057	1717	1440	1322	1292	579
25°	1836	1346	1088	984	948	844
35°	1496	1019	790	690	666	933
45°	1087	734	556	499	483	838
55°	685	489	386	351	343	619
65°	384	297	244	227	222	384
75°	169	140	120	114	110	182
85°	28	26	22	22	20	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2173.5	2173.5	2173.5	2173.5	2173.5
2.5°	2158.2	2161.1	2089.3	2063.5	2048.2
5°	2152.5	2097.9	1963.9	1888.3	1861.5
7.5°	2135.2	2016.6	1805.1	1700.7	1673.0
10°	2119.0	1923.7	1664.4	1561.0	1531.3
12.5°	2092.2	1821.3	1551.4	1432.7	1397.3
15°	2056.8	1717.0	1440.4	1321.7	1292.1
17.5°	2014.7	1617.5	1339.9	1226.0	1193.5
20°	1965.8	1525.6	1253.8	1137.0	1110.2
22.5°	1904.6	1434.7	1165.7	1060.4	1030.8
25°	1835.7	1345.7	1088.2	983.9	948.5
27.5°	1762.0	1259.5	1016.4	900.6	863.3
30°	1676.8	1177.2	942.7	821.2	786.7
32.5°	1590.7	1095.9	865.2	750.4	722.6
35°	1495.9	1019.3	790.5	690.1	666.1
37.5°	1400.2	945.6	723.6	635.5	614.4
40°	1295.9	873.8	662.3	584.8	567.5
42.5°	1191.6	802.0	606.8	539.8	523.5
45°	1087.2	734.1	556.1	498.6	483.3
47.5°	982.0	667.1	509.2	458.4	446.0
50°	880.5	603.9	465.1	421.1	410.6
52.5°	781.9	544.6	423.0	385.7	374.2
55°	685.3	489.1	385.7	351.2	342.6
57.5°	603.0	437.4	348.4	318.7	312.0
60°	524.5	387.6	313.0	288.1	281.4
62.5°	450.8	341.7	277.6	257.5	252.7
65°	383.8	296.7	244.1	226.8	222.0
67.5°	322.5	255.5	209.6	197.2	193.3
70°	268.9	214.4	179.0	168.4	165.6
72.5°	215.3	175.1	148.3	140.7	137.8
75°	169.4	139.7	119.6	113.9	110.1
77.5°	127.3	106.2	91.9	87.1	84.2
80°	88.1	75.6	65.1	63.2	60.3
82.5°	55.5	47.9	42.1	41.2	38.3
85°	27.8	25.8	22.0	22.0	20.1
87.5°	9.6	8.6	8.6	8.6	7.7
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	19.17	20.66	19.54	20.97	21.29	16.50	17.99	16.86	18.30	18.61
	3H	20.77	22.10	21.14	22.43	22.79	18.10	19.43	18.48	19.76	20.12
	4H	21.30	22.55	21.70	22.89	23.27	18.66	19.91	19.06	20.25	20.63
	6H	21.63	22.78	22.04	23.15	23.54	19.01	20.17	19.42	20.53	20.92
	8H	21.71	22.80	22.13	23.19	23.59	19.10	20.20	19.53	20.59	20.99
	12H	21.73	22.79	22.17	23.17	23.60	19.13	20.19	19.57	20.57	21.00
4H	2H	19.40	20.65	19.80	21.00	21.38	17.18	18.42	17.58	18.77	19.15
	3H	21.19	22.22	21.60	22.62	23.02	18.96	20.00	19.37	20.40	20.80
	4H	21.83	22.76	22.26	23.17	23.61	19.63	20.56	20.06	20.97	21.41
	6H	22.27	23.08	22.73	23.53	23.99	20.08	20.89	20.54	21.34	21.80
	8H	22.38	23.14	22.85	23.59	24.05	20.20	20.96	20.66	21.40	21.87
	12H	22.44	23.12	22.92	23.60	24.07	20.26	20.93	20.74	21.41	21.88
8H	4H	21.93	22.69	22.39	23.13	23.60	19.93	20.68	20.39	21.13	21.59
	6H	22.45	23.07	22.95	23.56	24.04	20.48	21.10	20.97	21.59	22.07
	8H	22.60	23.16	23.12	23.67	24.16	20.64	21.20	21.16	21.71	22.20
	12H	22.70	23.20	23.22	23.69	24.26	20.75	21.24	21.26	21.74	22.30
12H	4H	21.92	22.60	22.40	23.07	23.55	19.95	20.62	20.43	21.10	21.57
	6H	22.44	23.00	22.96	23.51	24.00	20.51	21.07	21.03	21.58	22.07
	8H	22.63	23.13	23.15	23.62	24.19	20.73	21.22	21.24	21.71	22.28