

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: P1217375

Luminaire Tested: S124DRP-H675D840-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217375
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-H675D840-X4F0-XX-UDD-G-W
Description: DEFINE 4, DIRECT RECESSED WITH GRAZE FLUSH OPTIC
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

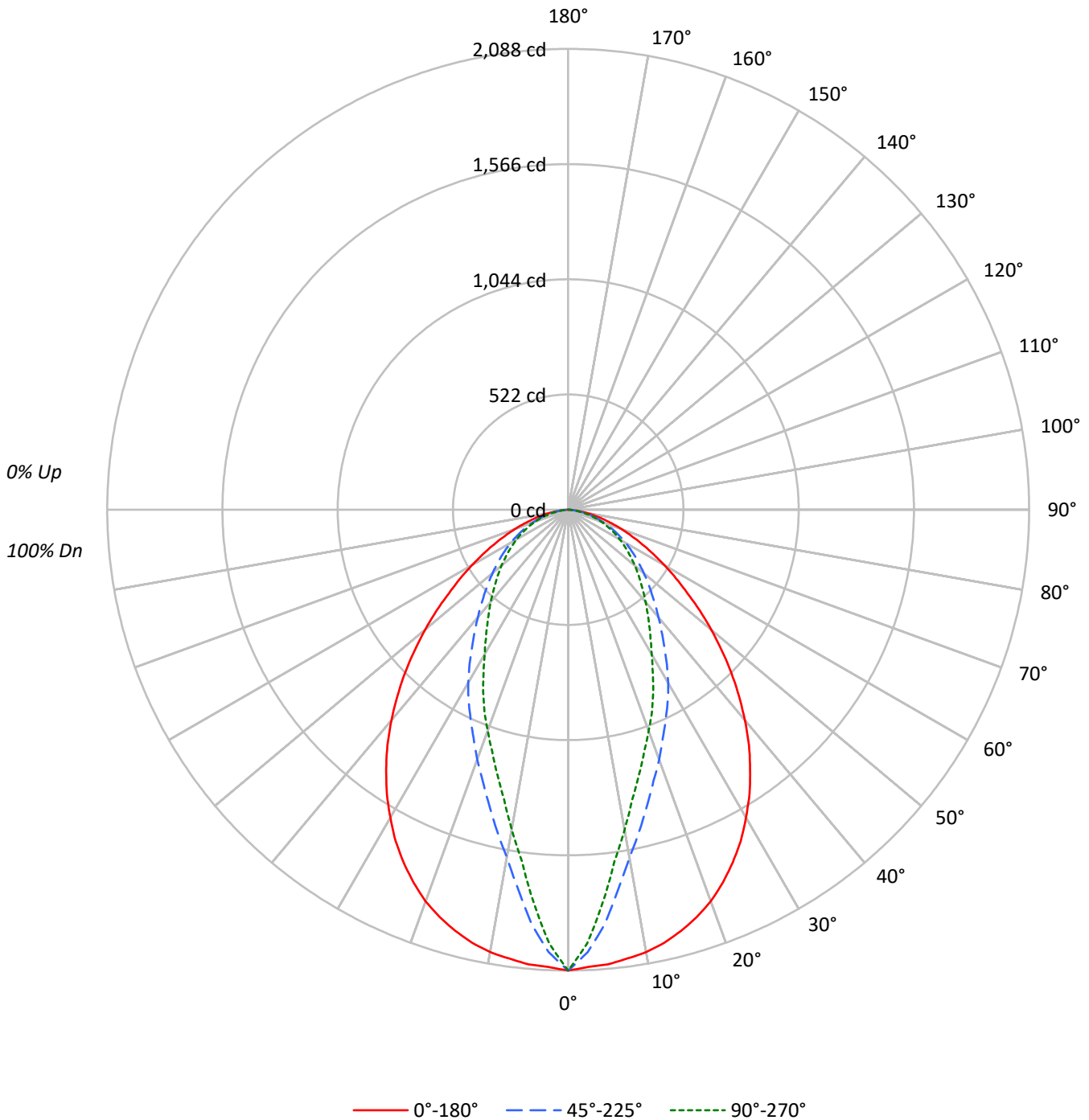
Lumens per Lamp: N/A
Luminaire Lumens: 2928.3 lumens
Efficiency: N/A
Efficacy: 123.0 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.59 / 0.87
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 23.8
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°	18461	18461	18461
5°	18351	16744	15871
10°	18274	14354	13206
15°	18085	12665	11361
20°	17768	11332	10034
25°	17203	10198	8888
30°	16445	9245	7715
35°	15510	8196	6907
40°	14368	7343	6292
45°	13059	6679	5805
50°	11634	6146	5425
55°	10147	5711	5073
60°	8909	5315	4780
65°	7713	4904	4462
70°	6680	4444	4113
75°	5558	3925	3611
80°	4307	3182	2948
85°	2709	2140	1958

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 13059 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	174.8	6.0
10°-20°	415.2	14.2
20°-30°	530.5	18.1
30°-40°	538.8	18.4
40°-50°	477.7	16.3
50°-60°	375.4	12.8
60°-70°	255.6	8.7
70°-80°	131.2	4.5
80°-90°	29.1	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°	1120.5	38.3
0°-40°	1659.4	56.7
0°-60°	2512.4	85.8
0°-90°	2928.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2928.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2088	2088	2088	2088	2088	
5°	2068	2015	1887	1814	1788	196
15°	1976	1649	1384	1270	1241	556
25°	1763	1293	1045	945	911	810
35°	1437	979	759	663	640	897
45°	1044	705	534	479	464	805
55°	658	470	370	337	329	594
65°	369	285	234	218	213	369
75°	163	134	115	109	106	175
85°	27	25	21	21	19	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2088.0	2088.0	2088.0	2088.0	2088.0
2.5°	2073.2	2076.0	2007.0	1982.2	1967.5
5°	2067.7	2015.3	1886.6	1814.0	1788.2
7.5°	2051.2	1937.2	1734.0	1633.8	1607.1
10°	2035.5	1848.0	1598.8	1499.5	1471.0
12.5°	2009.8	1749.6	1490.3	1376.3	1342.3
15°	1975.8	1649.4	1383.7	1269.7	1241.2
17.5°	1935.3	1553.8	1287.2	1177.7	1146.5
20°	1888.4	1465.5	1204.4	1092.2	1066.5
22.5°	1829.6	1378.2	1119.8	1018.7	990.2
25°	1763.4	1292.7	1045.4	945.1	911.1
27.5°	1692.6	1209.9	976.4	865.2	829.3
30°	1610.8	1130.9	905.6	788.8	755.7
32.5°	1528.0	1052.7	831.1	720.8	694.1
35°	1437.0	979.2	759.4	662.9	639.9
37.5°	1345.1	908.4	695.1	610.5	590.3
40°	1244.9	839.4	636.2	561.8	545.2
42.5°	1144.7	770.5	582.9	518.5	502.9
45°	1044.4	705.2	534.2	479.0	464.3
47.5°	943.3	640.8	489.1	440.4	428.4
50°	845.8	580.1	446.8	404.5	394.4
52.5°	751.1	523.1	406.4	370.5	359.5
55°	658.3	469.8	370.5	337.4	329.1
57.5°	579.2	420.2	334.7	306.2	299.7
60°	503.8	372.4	300.6	276.7	270.3
62.5°	433.0	328.2	266.6	247.3	242.7
65°	368.7	285.0	234.4	217.9	213.3
67.5°	309.8	245.5	201.3	189.4	185.7
70°	258.4	205.9	171.9	161.8	159.1
72.5°	206.9	168.2	142.5	135.2	132.4
75°	162.7	134.2	114.9	109.4	105.7
77.5°	122.3	102.1	88.3	83.7	80.9
80°	84.6	72.6	62.5	60.7	57.9
82.5°	53.3	46.0	40.5	39.5	36.8
85°	26.7	24.8	21.1	21.1	19.3
87.5°	9.2	8.3	8.3	8.3	7.4
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	19.04	20.52	19.40	20.84	21.15	16.36	17.85	16.73	18.16	18.48
	3H	20.63	21.96	21.01	22.29	22.65	17.96	19.29	18.34	19.62	19.98
	4H	21.16	22.41	21.56	22.76	23.13	18.52	19.77	18.92	20.12	20.49
	6H	21.49	22.64	21.90	23.01	23.40	18.87	20.03	19.28	20.39	20.79
	8H	21.57	22.66	21.99	23.05	23.46	18.96	20.06	19.39	20.45	20.85
	12H	21.60	22.65	22.03	23.03	23.46	18.99	20.05	19.43	20.43	20.86
4H	2H	19.26	20.51	19.66	20.86	21.24	17.04	18.29	17.44	18.63	19.01
	3H	21.05	22.08	21.46	22.48	22.89	18.82	19.86	19.23	20.26	20.66
	4H	21.69	22.62	22.12	23.04	23.47	19.49	20.42	19.92	20.84	21.27
	6H	22.13	22.94	22.59	23.39	23.85	19.94	20.75	20.40	21.20	21.66
	8H	22.24	23.00	22.71	23.45	23.91	20.06	20.82	20.52	21.26	21.73
	12H	22.30	22.98	22.79	23.46	23.93	20.12	20.79	20.60	21.27	21.75
8H	4H	21.79	22.55	22.25	22.99	23.46	19.79	20.54	20.25	20.99	21.45
	6H	22.31	22.93	22.81	23.42	23.90	20.34	20.96	20.83	21.45	21.93
	8H	22.46	23.02	22.98	23.53	24.02	20.50	21.06	21.02	21.57	22.06
	12H	22.57	23.06	23.08	23.55	24.12	20.61	21.10	21.12	21.60	22.16
12H	4H	21.78	22.46	22.26	22.94	23.41	19.81	20.48	20.29	20.96	21.43
	6H	22.30	22.86	22.82	23.37	23.86	20.37	20.93	20.89	21.44	21.93
	8H	22.50	22.99	23.01	23.48	24.05	20.59	21.08	21.10	21.57	22.14