

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: P1217380

Luminaire Tested: S124DRP-H675D940-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217380
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-H675D940-X4F0-XX-UDD-G-W
Description: DEFINE 4, DIRECT RECESSED WITH GRAZE FLUSH OPTIC
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

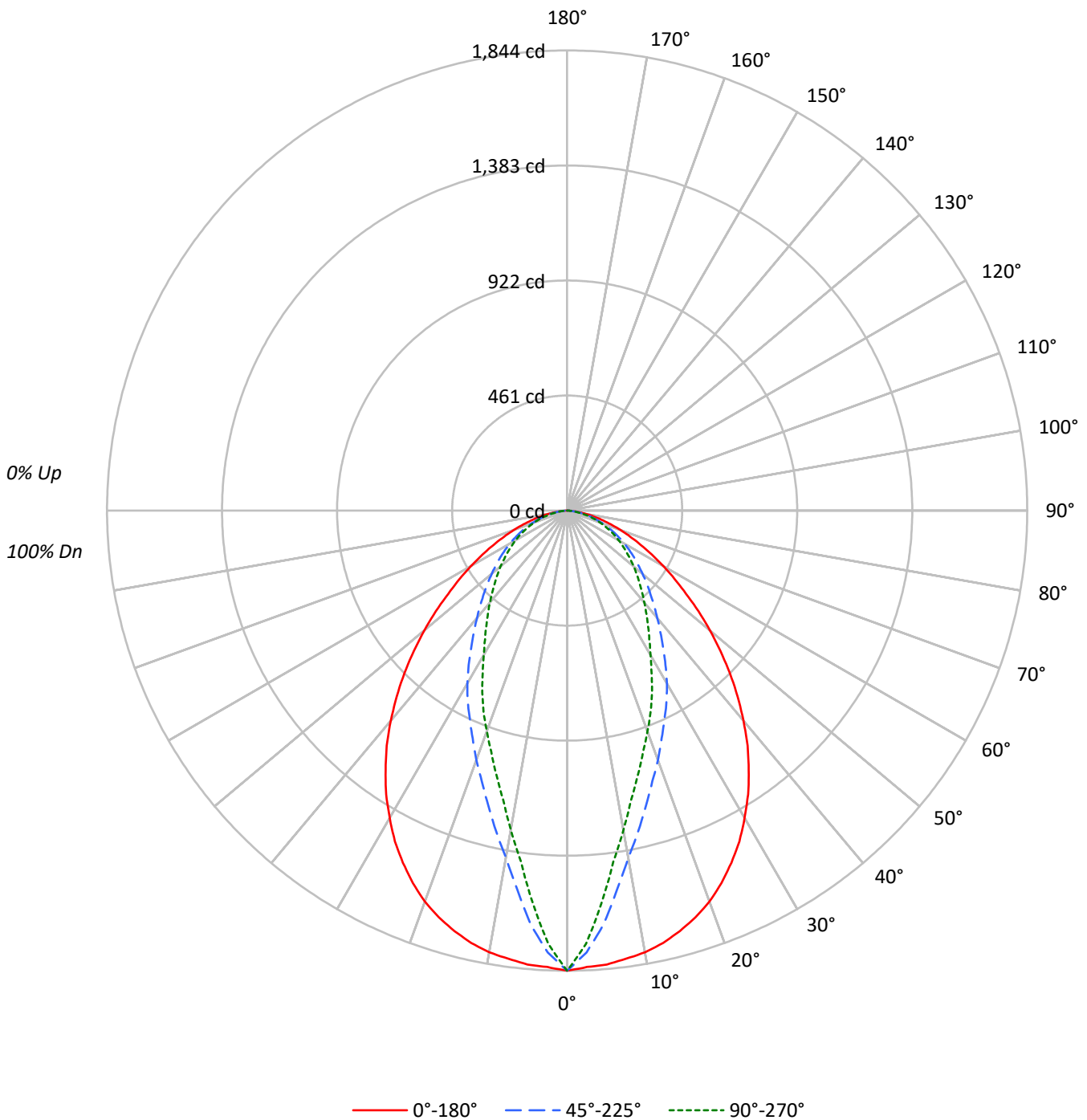
Lumens per Lamp: N/A
Luminaire Lumens: 2585.7 lumens
Efficiency: N/A
Efficacy: 108.6 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.59 / 0.87
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

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	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°	16301	16301	16301
5°	16204	14785	14014
10°	16137	12675	11661
15°	15969	11183	10032
20°	15689	10006	8860
25°	15190	9004	7848
30°	14520	8164	6813
35°	13696	7238	6098
40°	12687	6484	5556
45°	11531	5898	5126
50°	10273	5426	4791
55°	8960	5044	4479
60°	7867	4695	4221
65°	6810	4331	3939
70°	5896	3924	3629
75°	4909	3467	3191
80°	3803	2811	2602
85°	2384	1897	1725

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 11531 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	154.3	6.0
10°-20°	366.6	14.2
20°-30°	468.5	18.1
30°-40°	475.8	18.4
40°-50°	421.8	16.3
50°-60°	331.4	12.8
60°-70°	225.7	8.7
70°-80°	115.9	4.5
80°-90°	25.7	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°	989.4	38.3
0°-40°	1465.2	56.7
0°-60°	2218.4	85.8
0°-90°	2585.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2585.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1844	1844	1844	1844	1844	
5°	1826	1780	1666	1602	1579	173
15°	1745	1456	1222	1121	1096	491
25°	1557	1141	923	835	804	716
35°	1269	865	671	585	565	792
45°	922	623	472	423	410	710
55°	581	415	327	298	291	525
65°	326	252	207	192	188	326
75°	144	118	102	97	93	154
85°	24	22	19	19	17	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1843.7	1843.7	1843.7	1843.7	1843.7
2.5°	1830.7	1833.1	1772.2	1750.3	1737.3
5°	1825.8	1779.5	1665.9	1601.7	1579.0
7.5°	1811.2	1710.5	1531.1	1442.6	1419.1
10°	1797.4	1631.8	1411.8	1324.1	1298.9
12.5°	1774.7	1544.9	1316.0	1215.3	1185.3
15°	1744.6	1456.4	1221.8	1121.1	1096.0
17.5°	1708.9	1372.0	1136.6	1040.0	1012.3
20°	1667.5	1294.1	1063.5	964.5	941.7
22.5°	1615.5	1216.9	988.8	899.5	874.3
25°	1557.1	1141.4	923.0	834.6	804.5
27.5°	1494.6	1068.4	862.2	763.9	732.3
30°	1422.3	998.5	799.7	696.5	667.3
32.5°	1349.3	929.5	733.9	636.5	612.9
35°	1268.9	864.6	670.6	585.3	565.0
37.5°	1187.7	802.1	613.7	539.1	521.2
40°	1099.2	741.2	561.8	496.0	481.4
42.5°	1010.7	680.3	514.7	457.9	444.1
45°	922.2	622.7	471.7	423.0	410.0
47.5°	832.9	565.8	431.9	388.9	378.3
50°	746.9	512.3	394.5	357.2	348.3
52.5°	663.3	461.9	358.8	327.2	317.4
55°	581.3	414.8	327.2	297.9	290.6
57.5°	511.5	371.0	295.5	270.3	264.7
60°	444.9	328.8	265.5	244.4	238.7
62.5°	382.4	289.8	235.4	218.4	214.3
65°	325.5	251.7	207.0	192.4	188.3
67.5°	273.6	216.8	177.8	167.2	164.0
70°	228.1	181.8	151.8	142.9	140.4
72.5°	182.7	148.6	125.8	119.3	116.9
75°	143.7	118.5	101.5	96.6	93.4
77.5°	108.0	90.1	77.9	73.9	71.4
80°	74.7	64.1	55.2	53.6	51.1
82.5°	47.1	40.6	35.7	34.9	32.5
85°	23.5	21.9	18.7	18.7	17.0
87.5°	8.1	7.3	7.3	7.3	6.5
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	18.60	20.09	18.97	20.40	20.72	15.93	17.41	16.29	17.73	18.04
	3H	20.19	21.53	20.57	21.86	22.22	17.53	18.86	17.90	19.19	19.55
	4H	20.72	21.97	21.12	22.32	22.70	18.08	19.33	18.48	19.68	20.06
	6H	21.06	22.21	21.47	22.58	22.97	18.44	19.59	18.85	19.96	20.35
	8H	21.13	22.23	21.56	22.62	23.02	18.53	19.62	18.95	20.01	20.42
	12H	21.16	22.21	21.59	22.60	23.03	18.56	19.61	18.99	19.99	20.42
4H	2H	18.83	20.08	19.23	20.43	20.81	16.60	17.85	17.00	18.20	18.58
	3H	20.61	21.65	21.03	22.05	22.45	18.39	19.43	18.80	19.83	20.23
	4H	21.25	22.19	21.69	22.60	23.04	19.05	19.99	19.49	20.40	20.84
	6H	21.70	22.51	22.16	22.95	23.41	19.51	20.32	19.97	20.76	21.22
	8H	21.81	22.57	22.28	23.01	23.48	19.63	20.38	20.09	20.83	21.30
	12H	21.87	22.54	22.35	23.02	23.50	19.69	20.36	20.17	20.84	21.31
8H	4H	21.36	22.11	21.82	22.56	23.03	19.35	20.11	19.82	20.55	21.02
	6H	21.88	22.50	22.37	22.99	23.47	19.90	20.53	20.40	21.02	21.50
	8H	22.03	22.59	22.55	23.10	23.59	20.07	20.63	20.59	21.14	21.63
	12H	22.13	22.62	22.64	23.12	23.68	20.18	20.67	20.69	21.16	21.73
12H	4H	21.35	22.02	21.83	22.50	22.97	19.38	20.05	19.86	20.53	21.00
	6H	21.87	22.43	22.38	22.94	23.43	19.94	20.50	20.46	21.01	21.50
	8H	22.06	22.56	22.57	23.05	23.61	20.15	20.65	20.66	21.14	21.70