

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: P1055997

Luminaire Tested: S124R3DR-S1195D930-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055997
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-7)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124R3DR-S1195D930-X4F0-XX-UDD-F-W
Description: DEFINE 4, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

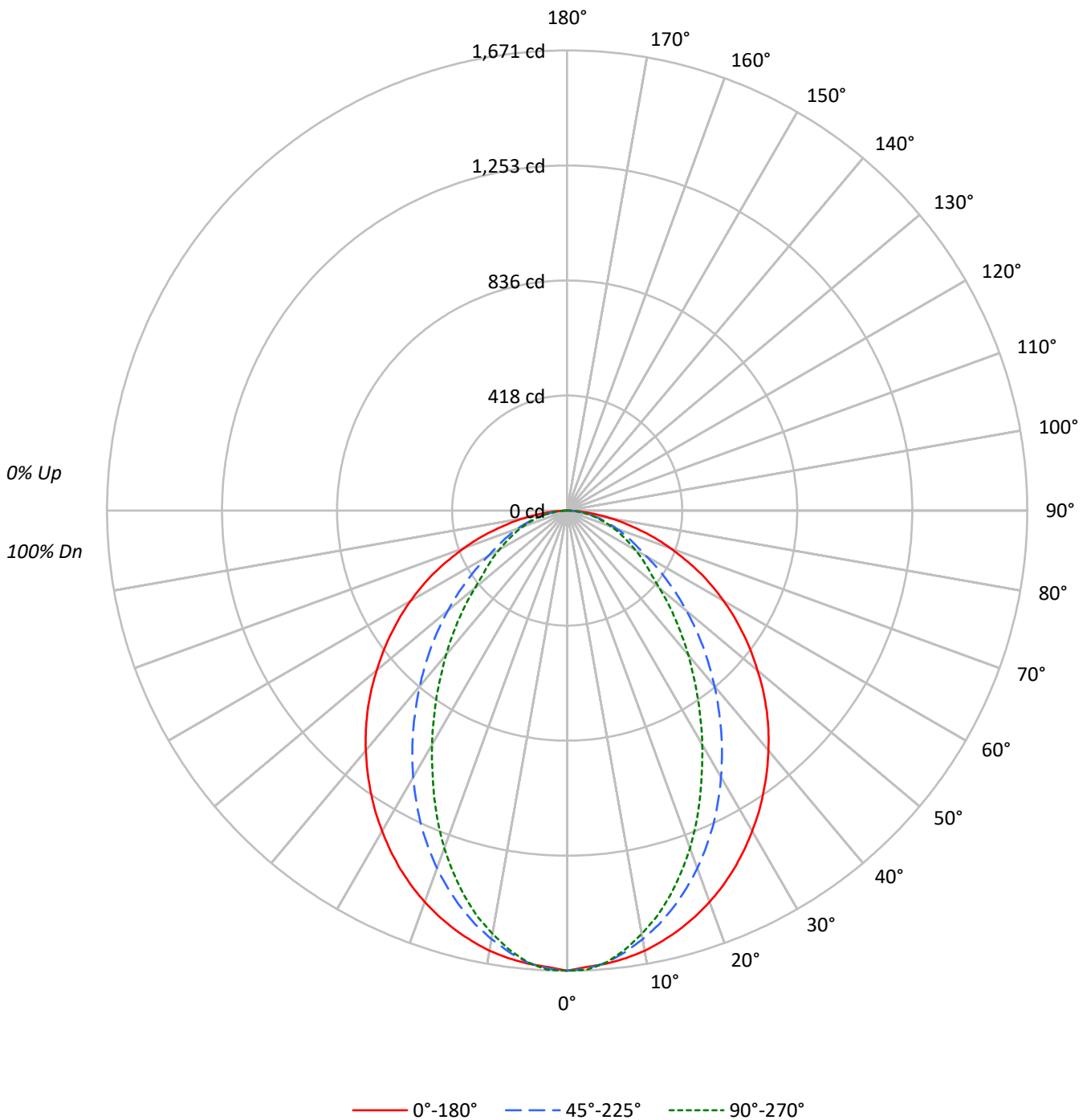
Lumens per Lamp: N/A
Luminaire Lumens: 3328.2 lumens
Efficiency: N/A
Efficacy: 79.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.95 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 41.9
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	105	102	98	107	103	100	97	99	96	93	95	93	91	92	90	88	86					86			
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	76	73					73			
3	93	83	75	69	90	81	74	69	79	73	68	76	71	67	73	69	65	63					63			
4	85	74	66	60	83	73	65	60	71	64	59	68	63	58	66	61	57	55					55			
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51	49					49			
6	73	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45	43					43			
7	68	56	47	42	67	55	47	42	53	46	41	52	46	41	51	45	41	39					39			
8	64	51	43	38	62	51	43	38	49	42	37	48	42	37	47	41	37	35					35			
9	60	47	39	34	59	47	39	34	46	39	34	45	38	34	44	38	34	32					32			
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	41	35	31	29					29			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14774	14774	14774
5°	14656	14624	14612
10°	14572	14185	14009
15°	14417	13652	13236
20°	14230	13004	12275
25°	13998	12259	11155
30°	13720	11411	10017
35°	13431	10525	8919
40°	13127	9607	7891
45°	12807	8718	6933
50°	12414	7780	5987
55°	12036	6842	5440
60°	11610	5871	5045
65°	11088	5324	4707
70°	10299	4927	4449
75°	9326	4537	4202
80°	8136	4195	3946
85°	6239	3865	3622

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 12807 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	155.6	4.7
10°-20°	422.0	12.7
20°-30°	584.3	17.6
30°-40°	627.2	18.8
40°-50°	570.3	17.1
50°-60°	449.1	13.5
60°-70°	307.4	9.2
70°-80°	165.5	5.0
80°-90°	46.8	1.4
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°	1161.9	34.9
0°-40°	1789.0	53.8
0°-60°	2808.5	84.4
0°-90°	3328.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3328.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1671	1671	1671	1671	1671	
5°	1651	1670	1648	1639	1646	157
15°	1575	1558	1492	1451	1446	444
25°	1435	1376	1257	1166	1144	661
35°	1244	1147	975	857	826	778
45°	1024	894	697	577	554	790
55°	781	632	444	358	353	698
65°	530	379	254	226	225	523
75°	273	166	133	122	123	291
85°	62	42	38	36	36	74
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1671.0	1671.0	1671.0	1671.0	1671.0
2.5°	1658.7	1678.4	1663.6	1666.1	1668.6
5°	1651.3	1669.8	1647.7	1639.1	1646.4
7.5°	1639.1	1651.3	1616.9	1600.9	1608.3
10°	1623.1	1625.5	1580.0	1556.7	1560.4
12.5°	1600.9	1594.8	1539.5	1506.3	1508.7
15°	1575.1	1557.9	1491.5	1450.9	1446.0
17.5°	1545.6	1517.3	1438.6	1387.0	1377.1
20°	1512.4	1474.3	1382.1	1315.7	1304.6
22.5°	1475.5	1426.3	1320.6	1241.9	1225.9
25°	1434.9	1375.9	1256.6	1165.7	1143.5
27.5°	1390.7	1321.8	1187.8	1088.2	1059.9
30°	1343.9	1265.3	1117.7	1010.7	981.2
32.5°	1296.0	1207.5	1046.4	933.3	902.5
35°	1244.4	1147.2	975.1	857.0	826.3
37.5°	1191.5	1084.5	902.5	783.3	751.3
40°	1137.4	1021.8	832.4	709.5	683.7
42.5°	1082.0	957.9	763.6	640.6	617.3
45°	1024.3	893.9	697.2	576.7	554.5
47.5°	965.2	828.7	629.6	516.4	495.5
50°	902.5	763.6	565.6	457.4	435.3
52.5°	842.3	697.2	504.1	399.6	388.6
55°	780.8	632.0	443.9	357.8	352.9
57.5°	719.3	566.8	388.6	324.6	319.7
60°	656.6	502.9	332.0	290.2	285.3
62.5°	593.9	440.2	290.2	257.0	254.5
65°	530.0	378.7	254.5	226.2	225.0
67.5°	462.3	319.7	222.6	199.2	198.0
70°	398.4	260.7	190.6	172.1	172.1
72.5°	338.1	206.6	161.1	146.3	146.3
75°	273.0	166.0	132.8	121.7	123.0
77.5°	215.2	130.3	107.0	99.6	99.6
80°	159.8	97.1	82.4	76.2	77.5
82.5°	108.2	67.6	59.0	55.3	55.3
85°	61.5	41.8	38.1	35.7	35.7
87.5°	22.1	19.7	18.4	16.0	17.2
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	20.50	22.02	20.86	22.34	22.65	16.28	17.80	16.64	18.11	18.43
	3H	22.27	23.64	22.65	23.97	24.33	17.89	19.26	18.26	19.58	19.95
	4H	22.94	24.23	23.34	24.58	24.96	18.52	19.80	18.92	20.15	20.53
	6H	23.45	24.64	23.87	25.01	25.40	19.02	20.21	19.43	20.57	20.96
	8H	23.62	24.75	24.04	25.14	25.54	19.19	20.32	19.61	20.71	21.11
	12H	23.72	24.80	24.15	25.18	25.61	19.31	20.39	19.74	20.78	21.20
4H	2H	20.59	21.88	20.99	22.23	22.61	16.99	18.28	17.39	18.63	19.01
	3H	22.54	23.61	22.95	24.01	24.41	18.80	19.87	19.21	20.27	20.67
	4H	23.29	24.26	23.73	24.67	25.11	19.54	20.50	19.97	20.92	21.36
	6H	23.93	24.77	24.38	25.21	25.67	20.15	20.99	20.61	21.44	21.90
	8H	24.15	24.93	24.61	25.38	25.84	20.37	21.15	20.83	21.60	22.07
	12H	24.30	25.00	24.78	25.48	25.95	20.54	21.24	21.02	21.72	22.19
8H	4H	23.35	24.14	23.81	24.58	25.05	19.93	20.71	20.39	21.16	21.62
	6H	24.05	24.70	24.55	25.19	25.67	20.66	21.31	21.15	21.80	22.28
	8H	24.32	24.90	24.83	25.41	25.90	20.95	21.53	21.46	22.04	22.53
	12H	24.54	25.05	25.04	25.54	26.11	21.19	21.71	21.70	22.20	22.76
12H	4H	23.34	24.04	23.82	24.52	24.99	19.98	20.68	20.46	21.16	21.63
	6H	24.04	24.63	24.56	25.14	25.62	20.74	21.32	21.25	21.83	22.32
	8H	24.35	24.87	24.86	25.36	25.92	21.09	21.60	21.60	22.10	22.66