

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: P1055160

Luminaire Tested: S122R3DR-S1005D930-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055160
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-1)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122R3DR-S1005D930-X4F0-XX-UDD-F-W
Description: DEFINE 2, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

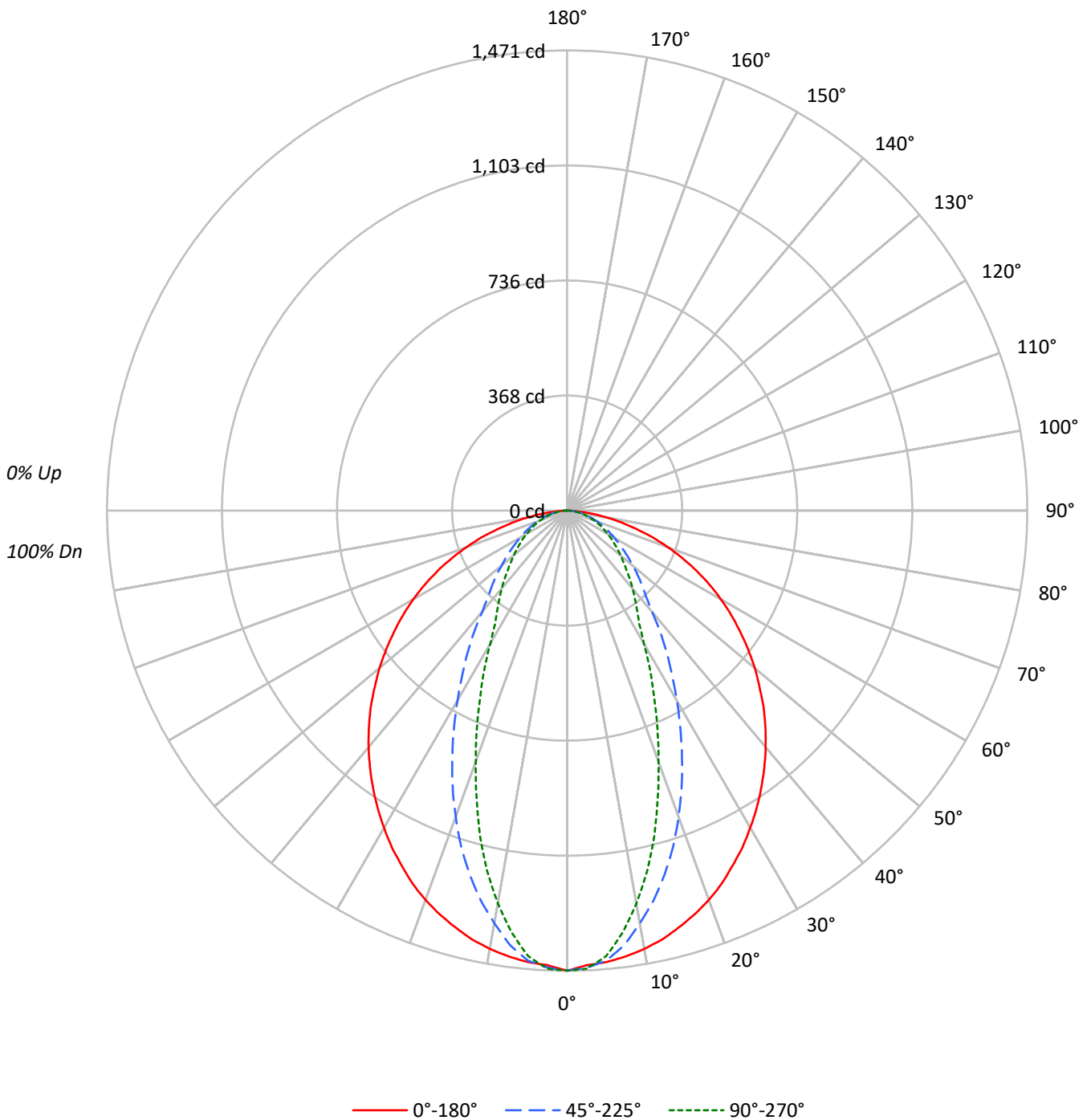
Lumens per Lamp: N/A
Luminaire Lumens: 2224.4 lumens
Efficiency: N/A
Efficacy: 53.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.71 / 0.9
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 41.9
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	101	97	100	97	94	96	94	92	92	91	89	87
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66
4	87	76	69	63	85	75	68	62	73	66	61	71	65	61	68	64	60	58
5	81	69	61	55	79	68	61	55	66	60	55	64	59	54	63	58	54	52
6	75	63	55	50	74	63	55	49	61	54	49	59	53	49	58	52	48	46
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38
9	62	50	43	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35
10	59	47	39	35	58	46	39	34	45	39	34	44	38	34	43	38	34	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	27862	27862	27862
5°	27548	27453	27196
10°	27368	25760	24531
15°	27060	23612	21103
20°	26700	20998	17230
25°	26166	18147	13751
30°	25609	15333	10733
35°	25025	12825	9016
40°	24420	10400	8028
45°	23787	9094	7183
50°	23087	8047	6561
55°	22296	7270	6091
60°	21526	6616	5684
65°	20505	6065	5348
70°	19006	5656	5041
75°	16829	5131	4773
80°	14358	4833	4430
85°	9891	4282	4000

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 23787 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	134.8	6.1
10°-20°	340.2	15.3
20°-30°	419.2	18.8
30°-40°	402.2	18.1
40°-50°	347.0	15.6
50°-60°	269.2	12.1
60°-70°	184.3	8.3
70°-80°	100.1	4.5
80°-90°	27.4	1.2
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°	894.2	40.2
0°-40°	1296.5	58.3
0°-60°	1912.6	86.0
0°-90°	2224.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2224.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1471	1471	1471	1471	1471	
5°	1448	1469	1444	1425	1430	137
15°	1380	1338	1204	1105	1076	389
25°	1252	1118	868	708	658	577
35°	1082	858	554	413	390	677
45°	888	598	339	280	268	684
55°	675	359	220	191	184	604
65°	457	196	135	123	119	452
75°	230	90	70	66	65	246
85°	46	22	20	20	18	58
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1470.6	1470.6	1470.6	1470.6	1470.6
2.5°	1454.6	1479.2	1462.0	1462.0	1465.7
5°	1448.5	1469.4	1443.5	1425.1	1430.0
7.5°	1437.4	1452.2	1400.5	1361.2	1359.9
10°	1422.6	1423.9	1339.0	1287.4	1275.1
12.5°	1404.2	1384.5	1276.3	1198.9	1180.4
15°	1379.6	1337.8	1203.8	1105.4	1075.9
17.5°	1353.8	1289.8	1126.3	1003.3	962.8
20°	1324.3	1232.1	1041.5	901.3	854.6
22.5°	1291.1	1176.7	956.6	802.9	753.7
25°	1251.7	1117.7	868.1	708.2	657.8
27.5°	1213.6	1057.5	783.3	624.6	573.0
30°	1170.6	992.3	700.9	544.7	490.6
32.5°	1127.5	925.9	624.6	468.5	427.9
35°	1082.0	858.3	554.5	413.1	389.8
37.5°	1035.3	791.9	488.1	376.3	355.4
40°	987.4	725.5	420.5	340.6	324.6
42.5°	938.2	660.3	373.8	311.1	296.3
45°	887.8	597.6	339.4	280.3	268.1
47.5°	833.7	534.9	306.2	254.5	243.5
50°	783.3	474.6	273.0	231.2	222.6
52.5°	729.1	415.6	245.9	210.3	202.9
55°	675.0	359.0	220.1	190.6	184.4
57.5°	622.2	304.9	195.5	172.1	167.2
60°	568.1	261.9	174.6	154.9	150.0
62.5°	512.7	227.5	154.9	138.9	134.0
65°	457.4	195.5	135.3	123.0	119.3
67.5°	399.6	164.8	118.0	108.2	105.7
70°	343.1	137.7	102.1	93.4	91.0
72.5°	287.7	111.9	86.1	79.9	77.5
75°	229.9	89.8	70.1	66.4	65.2
77.5°	179.5	70.1	56.6	54.1	52.9
80°	131.6	51.6	44.3	41.8	40.6
82.5°	87.3	35.7	32.0	30.7	29.5
85°	45.5	22.1	19.7	19.7	18.4
87.5°	14.8	9.8	9.8	9.8	8.6
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	21.17	22.64	21.53	22.95	23.26	15.97	17.44	16.34	17.75	18.07
	3H	23.50	24.81	23.88	25.14	25.51	17.62	18.94	18.00	19.27	19.63
	4H	24.39	25.63	24.79	25.98	26.36	18.26	19.49	18.66	19.84	20.22
	6H	25.06	26.20	25.47	26.56	26.96	18.75	19.89	19.16	20.26	20.65
	8H	25.26	26.35	25.69	26.74	27.14	18.92	20.00	19.35	20.39	20.80
	12H	25.38	26.42	25.81	26.80	27.23	19.04	20.07	19.47	20.46	20.89
4H	2H	21.19	22.42	21.59	22.77	23.15	16.69	17.92	17.09	18.27	18.65
	3H	23.60	24.62	24.01	25.02	25.42	18.54	19.56	18.95	19.96	20.36
	4H	24.53	25.45	24.96	25.87	26.31	19.28	20.21	19.72	20.62	21.06
	6H	25.30	26.11	25.76	26.55	27.01	19.90	20.70	20.36	21.15	21.61
	8H	25.58	26.32	26.04	26.77	27.24	20.12	20.87	20.58	21.31	21.78
	12H	25.75	26.42	26.24	26.90	27.37	20.28	20.95	20.76	21.42	21.90
8H	4H	24.52	25.27	24.98	25.71	26.18	19.66	20.41	20.13	20.86	21.33
	6H	25.33	25.95	25.83	26.44	26.92	20.40	21.02	20.90	21.51	21.99
	8H	25.63	26.18	26.14	26.69	27.18	20.70	21.25	21.21	21.76	22.25
	12H	25.86	26.35	26.37	26.84	27.41	20.94	21.43	21.45	21.92	22.49
12H	4H	24.50	25.17	24.98	25.65	26.12	19.72	20.39	20.20	20.87	21.34
	6H	25.30	25.86	25.82	26.37	26.86	20.49	21.04	21.00	21.55	22.04
	8H	25.64	26.13	26.15	26.62	27.19	20.84	21.33	21.35	21.83	22.39