

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: P1055235

Luminaire Tested: S122R3DR-S675D850-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055235
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-S675D850-X4F0-XX-UDD-F-W
Description: DEFINE 2, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

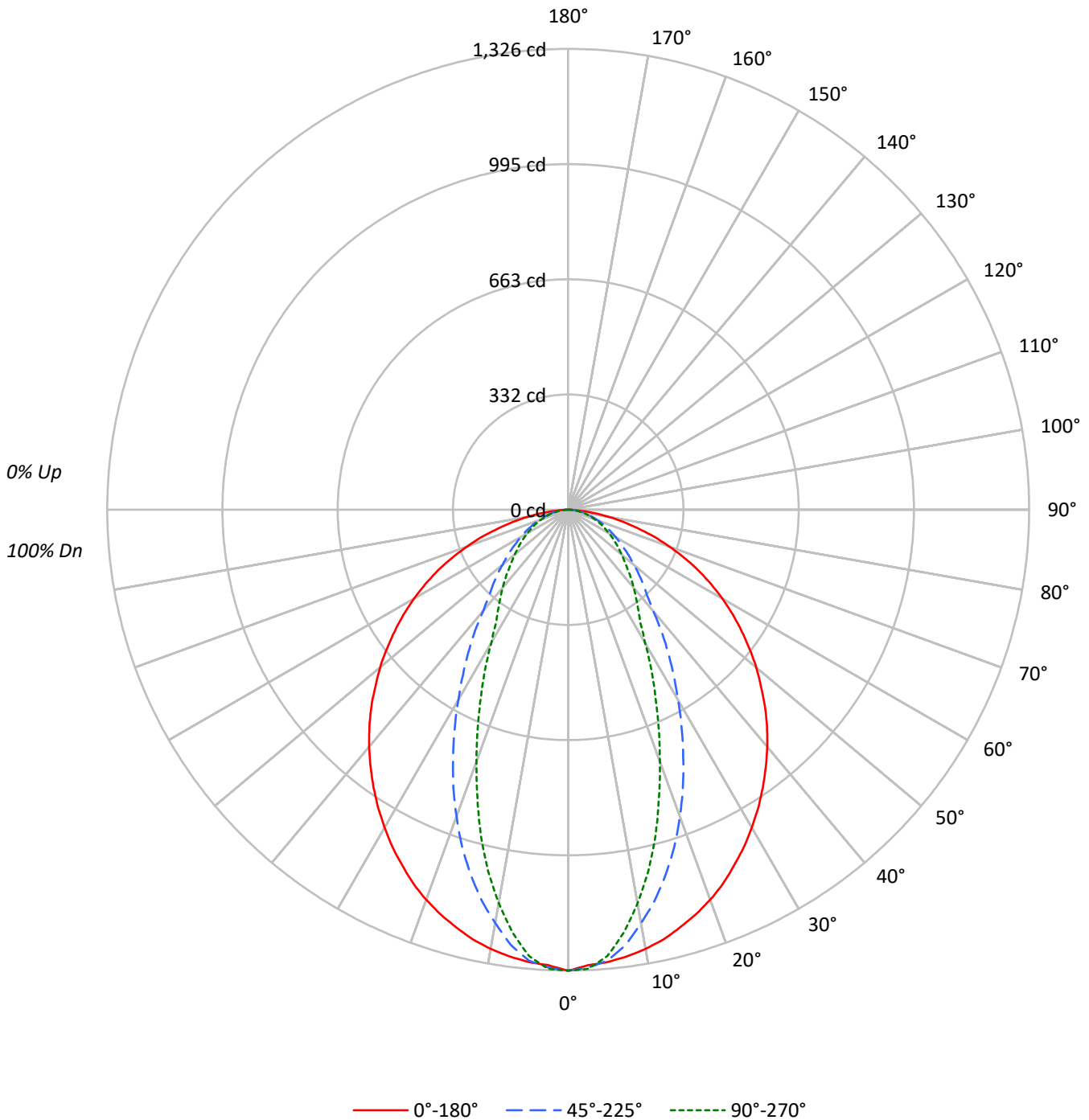
Lumens per Lamp: N/A
Luminaire Lumens: 2006.2 lumens
Efficiency: N/A
Efficacy: 76.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.71 / 0.9
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
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	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	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°	25130	25130	25130
5°	24845	24762	24530
10°	24684	23234	22124
15°	24406	21295	19034
20°	24081	18938	15541
25°	23601	16368	12403
30°	23098	13828	9680
35°	22571	11569	8132
40°	22024	9381	7242
45°	21454	8201	6479
50°	20821	7257	5916
55°	20109	6557	5496
60°	19416	5968	5127
65°	18492	5469	4824
70°	17139	5096	4548
75°	15182	4626	4304
80°	12951	4353	3993
85°	8913	3848	3608

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 21454 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.5	6.1
10°-20°	306.9	15.3
20°-30°	378.1	18.8
30°-40°	362.8	18.1
40°-50°	312.9	15.6
50°-60°	242.8	12.1
60°-70°	166.2	8.3
70°-80°	90.3	4.5
80°-90°	24.7	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°	806.5	40.2
0°-40°	1169.3	58.3
0°-60°	1725.0	86.0
0°-90°	2006.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2006.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1326	1326	1326	1326	1326	
5°	1306	1325	1302	1285	1290	124
15°	1244	1207	1086	997	970	351
25°	1129	1008	783	639	593	520
35°	976	774	500	373	352	610
45°	801	539	306	253	242	617
55°	609	324	198	172	166	545
65°	412	176	122	111	108	407
75°	207	81	63	60	59	222
85°	41	20	18	18	17	52
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1326.4	1326.4	1326.4	1326.4	1326.4
2.5°	1311.9	1334.1	1318.6	1318.6	1321.9
5°	1306.4	1325.3	1302.0	1285.3	1289.8
7.5°	1296.4	1309.7	1263.2	1227.7	1226.6
10°	1283.1	1284.2	1207.7	1161.1	1150.0
12.5°	1266.5	1248.7	1151.1	1081.3	1064.6
15°	1244.3	1206.6	1085.7	997.0	970.4
17.5°	1221.0	1163.3	1015.8	904.9	868.3
20°	1194.4	1111.2	939.3	812.9	770.8
22.5°	1164.5	1061.3	862.8	724.2	679.8
25°	1129.0	1008.1	783.0	638.8	593.3
27.5°	1094.6	953.7	706.4	563.4	516.8
30°	1055.8	895.0	632.1	491.3	442.5
32.5°	1017.0	835.1	563.4	422.5	385.9
35°	975.9	774.1	500.2	372.6	351.6
37.5°	933.8	714.2	440.3	339.4	320.5
40°	890.5	654.3	379.3	307.2	292.8
42.5°	846.2	595.5	337.1	280.6	267.3
45°	800.7	539.0	306.1	252.9	241.8
47.5°	751.9	482.4	276.1	229.6	219.6
50°	706.4	428.1	246.2	208.5	200.7
52.5°	657.6	374.8	221.8	189.6	183.0
55°	608.8	323.8	198.5	171.9	166.4
57.5°	561.2	275.0	176.3	155.3	150.8
60°	512.4	236.2	157.5	139.7	135.3
62.5°	462.5	205.2	139.7	125.3	120.9
65°	412.5	176.3	122.0	110.9	107.6
67.5°	360.4	148.6	106.5	97.6	95.4
70°	309.4	124.2	92.0	84.3	82.1
72.5°	259.5	100.9	77.6	72.1	69.9
75°	207.4	81.0	63.2	59.9	58.8
77.5°	161.9	63.2	51.0	48.8	47.7
80°	118.7	46.6	39.9	37.7	36.6
82.5°	78.7	32.2	28.8	27.7	26.6
85°	41.0	20.0	17.7	17.7	16.6
87.5°	13.3	8.9	8.9	8.9	7.8
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	20.81	22.28	21.18	22.59	22.91	15.62	17.09	15.98	17.40	17.71
	3H	23.14	24.46	23.52	24.78	25.15	17.26	18.58	17.64	18.91	19.27
	4H	24.04	25.27	24.44	25.62	26.00	17.90	19.13	18.30	19.48	19.86
	6H	24.70	25.84	25.11	26.21	26.60	18.39	19.53	18.81	19.90	20.29
	8H	24.91	25.99	25.33	26.38	26.78	18.56	19.65	18.99	20.04	20.44
	12H	25.02	26.06	25.45	26.44	26.87	18.68	19.72	19.11	20.10	20.53
4H	2H	20.83	22.06	21.23	22.41	22.79	16.33	17.57	16.73	17.92	18.30
	3H	23.24	24.26	23.65	24.66	25.07	18.18	19.21	18.59	19.61	20.01
	4H	24.17	25.09	24.60	25.51	25.95	18.93	19.85	19.36	20.27	20.71
	6H	24.95	25.75	25.40	26.19	26.65	19.54	20.34	20.00	20.79	21.25
	8H	25.22	25.97	25.68	26.41	26.88	19.76	20.51	20.22	20.95	21.42
	12H	25.39	26.06	25.88	26.54	27.01	19.92	20.59	20.40	21.07	21.54
8H	4H	24.16	24.91	24.63	25.36	25.82	19.31	20.06	19.77	20.50	20.97
	6H	24.97	25.59	25.47	26.08	26.56	20.04	20.66	20.54	21.15	21.63
	8H	25.27	25.82	25.79	26.34	26.82	20.34	20.89	20.85	21.40	21.89
	12H	25.50	25.99	26.01	26.48	27.05	20.58	21.07	21.09	21.56	22.13
12H	4H	24.14	24.81	24.62	25.29	25.76	19.36	20.03	19.85	20.51	20.98
	6H	24.94	25.50	25.46	26.01	26.50	20.13	20.68	20.64	21.19	21.68
	8H	25.28	25.77	25.79	26.26	26.83	20.48	20.97	21.00	21.47	22.03