

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: P1217311

Luminaire Tested: S122DRP-S290D835-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217311
TEST IS SCALED FROM IESNA LM-79-24 TEST DATA (G3-2511-596-2)
Test Lab: INNOVATION CENTER
Issue Date: 4/9/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122DRP-S290D835-X4F0-XX-UDD-G-W
Description: DEFINE 2, DIRECT RECESSED WITH GRAZE FLUSH OPTIC
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

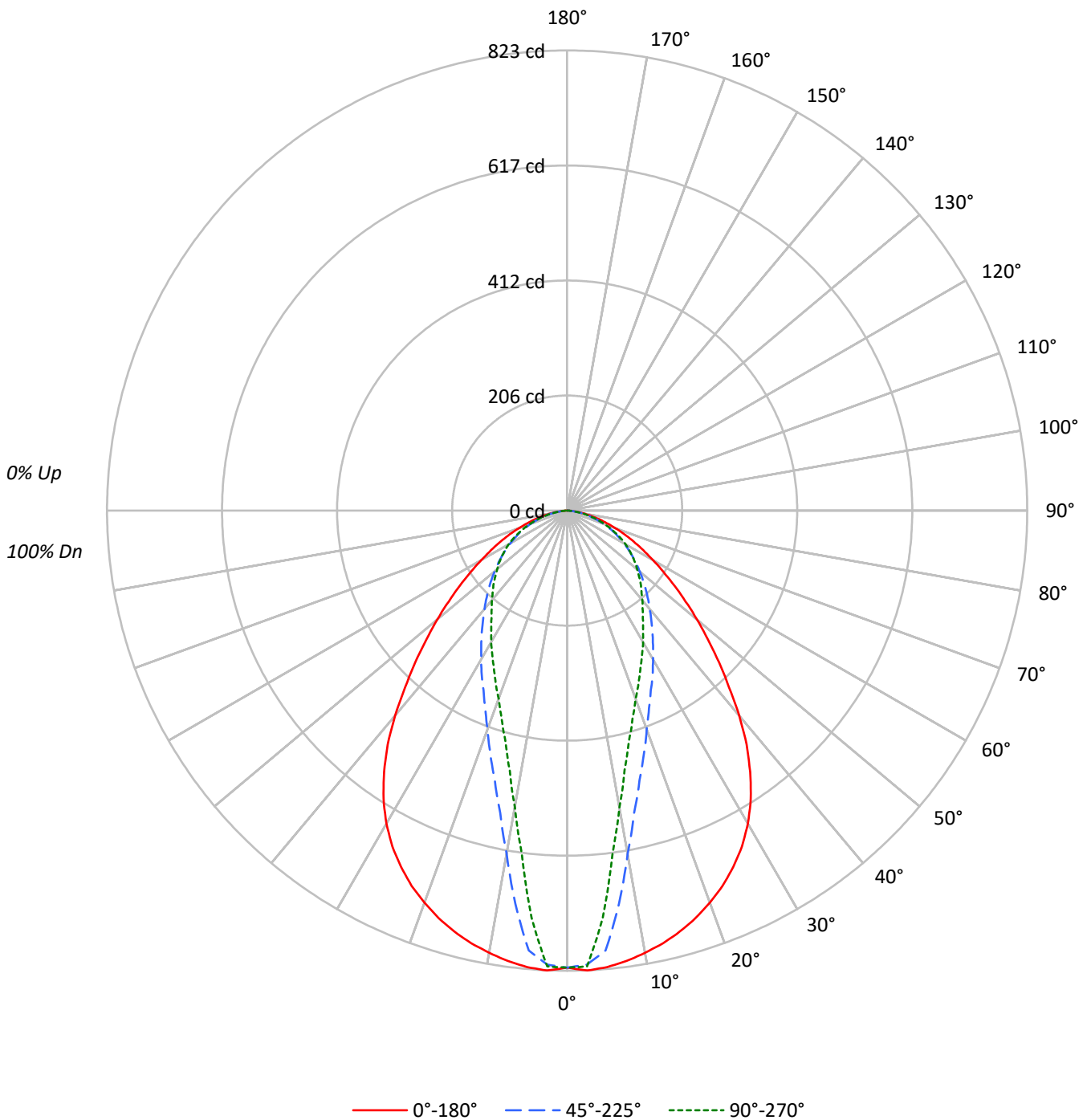
Lumens per Lamp: N/A
Luminaire Lumens: 1098.3 lumens
Efficiency: N/A
Efficacy: 87.2 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 0.5 / 0.8
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 12.6
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	100	100	100	100	100		
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87	87	87	87	87	87	87		
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75	75	75	75	75	75	75		
3	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67	65	65	65	65	65	65	65		
4	86	76	68	62	84	74	67	61	72	65	60	70	64	60	68	63	59	57	57	57	57	57	57	57		
5	80	69	60	54	78	67	60	54	65	59	53	63	58	53	62	57	52	50	50	50	50	50	50	50		
6	75	63	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45	45	45	45	45	45	45		
7	70	57	49	44	68	57	49	44	55	48	43	54	48	43	52	47	43	41	41	41	41	41	41	41		
8	65	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37	37	37	37	37	37	37		
9	62	49	41	36	60	49	41	36	47	41	36	46	40	36	45	40	36	34	34	34	34	34	34	34		
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	43	37	33	31	31	31	31	31	31	31		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	15486	15486	15486
5°	15585	15017	13906
10°	15446	11993	10367
15°	15287	9801	8371
20°	15043	8389	7222
25°	14698	7406	6480
30°	14141	6716	5942
35°	13195	6155	5463
40°	11832	5683	5176
45°	10294	5313	4992
50°	8934	4990	4813
55°	7733	4717	4690
60°	6703	4445	4574
65°	5868	4165	4322
70°	5052	3828	3966
75°	4216	3367	3499
80°	3306	2749	2651
85°	2043	1761	1761

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 10294 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.4	6.4
10°-20°	155.2	14.1
20°-30°	190.4	17.3
30°-40°	196.8	17.9
40°-50°	177.7	16.2
50°-60°	144.0	13.1
60°-70°	100.9	9.2
70°-80°	52.1	4.7
80°-90°	11.0	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°	415.9	37.9
0°-40°	612.7	55.8
0°-60°	934.4	85.1
0°-90°	1098.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1098.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	817	817	817	817	817	
5°	820	818	790	754	731	78
15°	779	657	500	446	427	220
25°	703	467	354	321	310	323
35°	570	345	266	244	236	355
45°	384	249	198	187	186	297
55°	234	170	143	141	142	211
65°	131	105	93	95	96	131
75°	58	50	46	47	48	62
85°	9	8	8	8	8	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	817.4	817.4	817.4	817.4	817.4
2.5°	823.3	820.3	812.7	819.9	816.1
5°	819.5	817.8	789.6	754.2	731.2
7.5°	812.7	806.7	709.5	642.5	619.9
10°	802.9	773.0	623.4	561.1	538.9
12.5°	792.6	722.3	553.9	495.4	475.4
15°	779.4	657.0	499.7	445.6	426.8
17.5°	764.1	600.3	456.6	404.6	389.7
20°	746.1	551.3	416.1	370.5	358.2
22.5°	726.5	509.9	382.5	345.4	333.8
25°	703.1	466.9	354.3	320.6	310.0
27.5°	677.1	434.0	330.9	299.3	290.4
30°	646.4	402.1	307.0	278.8	271.6
32.5°	611.4	372.2	285.7	260.9	252.4
35°	570.5	344.9	266.1	243.5	236.2
37.5°	527.0	318.1	247.3	227.7	221.7
40°	478.4	294.6	229.8	212.3	209.3
42.5°	428.5	271.2	214.0	199.1	196.6
45°	384.2	248.6	198.3	187.2	186.3
47.5°	341.1	228.1	183.8	175.2	174.4
50°	303.1	206.8	169.3	163.7	163.3
52.5°	266.9	188.0	155.6	152.6	153.5
55°	234.1	170.1	142.8	141.1	142.0
57.5°	203.8	153.5	130.0	130.5	131.7
60°	176.9	136.4	117.3	119.0	120.7
62.5°	153.5	120.7	104.9	107.4	109.2
65°	130.9	104.9	92.9	95.1	96.4
67.5°	110.9	90.0	81.0	83.6	84.0
70°	91.2	76.3	69.1	71.6	71.6
72.5°	74.2	62.2	57.6	58.8	59.3
75°	57.6	49.5	46.0	47.3	47.8
77.5°	43.5	37.5	35.0	36.2	35.8
80°	30.3	26.4	25.2	24.7	24.3
82.5°	18.8	16.6	15.3	15.8	15.3
85°	9.4	8.1	8.1	8.1	8.1
87.5°	3.0	3.0	3.0	3.0	3.0
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	18.02	19.52	18.38	19.83	20.14	16.52	18.02	16.88	18.33	18.64
	3H	19.60	20.95	19.98	21.28	21.64	18.23	19.57	18.61	19.90	20.26
	4H	20.13	21.39	20.53	21.74	22.12	18.81	20.07	19.21	20.42	20.80
	6H	20.46	21.62	20.87	21.99	22.38	19.16	20.32	19.57	20.69	21.08
	8H	20.53	21.64	20.96	22.03	22.43	19.23	20.34	19.66	20.73	21.13
	12H	20.56	21.62	20.99	22.00	22.43	19.26	20.32	19.69	20.71	21.14
4H	2H	18.33	19.59	18.73	19.94	20.32	17.08	18.34	17.48	18.69	19.07
	3H	20.11	21.16	20.52	21.56	21.96	18.99	20.04	19.40	20.44	20.84
	4H	20.74	21.68	21.17	22.10	22.54	19.69	20.63	20.12	21.05	21.49
	6H	21.17	21.99	21.63	22.43	22.89	20.14	20.96	20.60	21.40	21.86
	8H	21.28	22.04	21.74	22.49	22.96	20.24	21.01	20.71	21.45	21.92
	12H	21.33	22.01	21.81	22.49	22.96	20.29	20.98	20.78	21.46	21.93
8H	4H	20.89	21.65	21.35	22.10	22.56	19.93	20.69	20.39	21.14	21.60
	6H	21.39	22.02	21.89	22.52	22.99	20.47	21.10	20.96	21.59	22.07
	8H	21.54	22.11	22.06	22.62	23.10	20.61	21.18	21.13	21.69	22.18
	12H	21.63	22.13	22.14	22.62	23.19	20.71	21.21	21.22	21.70	22.27
12H	4H	20.89	21.57	21.37	22.05	22.52	19.94	20.62	20.42	21.10	21.57
	6H	21.40	21.96	21.91	22.47	22.96	20.49	21.05	21.00	21.56	22.05
	8H	21.58	22.08	22.09	22.57	23.14	20.68	21.18	21.19	21.67	22.23