

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: P1439654

Luminaire Tested: S122DR-H675D840-X4F0-XX-UDD-FLB-W

Issue Date: 4/2/2026

**Test Information**

Test Method: LM-79-2024  
Report Number: P1439654  
TEST IS SCALED FROM IESNA LM-79-24 TEST DATA (G2-2602-702-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 4/2/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122DR-H675D840-X4F0-XX-UDD-FLB-W  
Description: DEFINE 2, DIRECT RECESSED WITH BATWING FLUSH OPTIC  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

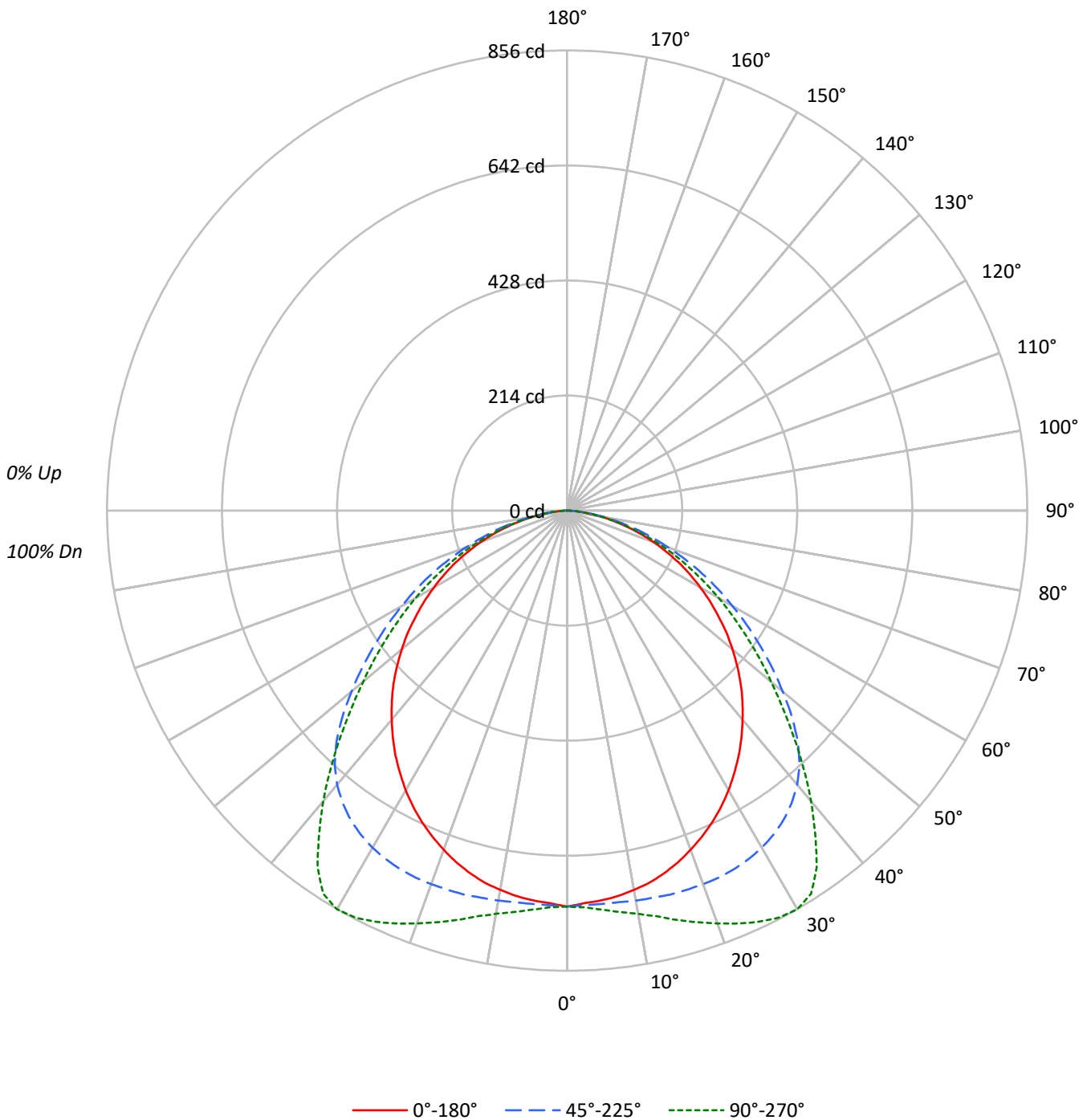
Lumens per Lamp: N/A  
Luminaire Lumens: 2265.7 lumens  
Efficiency: N/A  
Efficacy: 95.2 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.56 / 1.51  
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')  
CIE Type: Direct

Input Watts (W): 23.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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	109	105	101	97	107	102	99	95	98	95	92	94	92	89	91	89	87	85
2	100	91	85	79	97	90	84	78	86	81	76	83	79	75	80	76	73	71
3	91	80	72	66	88	79	71	66	76	70	64	73	68	63	71	66	62	60
4	83	71	63	56	81	70	62	56	68	60	55	65	59	54	63	58	53	51
5	76	64	55	48	74	63	54	48	61	53	47	59	52	47	57	51	46	44
6	71	57	48	42	69	56	48	42	55	47	42	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	30
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	34	29	27
10	53	40	32	27	52	39	32	27	38	31	27	38	31	26	37	31	26	25

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	13957	13957	13957
5°	13845	13973	14174
10°	13784	14173	14652
15°	13697	14505	15464
20°	13539	14910	16474
25°	13358	15379	17643
30°	13139	15843	18735
35°	12873	16241	18723
40°	12556	16467	17461
45°	12242	16248	15990
50°	11831	15415	14599
55°	11359	14461	13417
60°	10852	13467	12341
65°	10266	12409	11252
70°	9445	11090	10082
75°	8345	9604	8696
80°	6895	7626	6895
85°	4587	5000	4782

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 67.5°  
 Vertical Angle: 45°  
 Luminance: 16376 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	70.4	3.1
10°-20°	210.4	9.3
20°-30°	341.4	15.1
30°-40°	432.0	19.1
40°-50°	432.7	19.1
50°-60°	362.4	16.0
60°-70°	255.4	11.3
70°-80°	131.7	5.8
80°-90°	29.2	1.3
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°	622.3	27.5
0°-40°	1054.3	46.5
0°-60°	1849.3	81.6
0°-90°	2265.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2265.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	737	737	737	737	737	
5°	728	740	735	739	745	69
15°	698	718	740	769	788	197
25°	639	673	736	808	844	294
35°	557	602	702	793	810	348
45°	457	505	606	611	597	352
55°	344	386	438	420	406	308
65°	229	255	277	260	251	226
75°	114	126	131	122	119	121
85°	21	23	23	23	22	27
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	736.7	736.7	736.7	736.7	736.7
2.5°	730.9	742.4	734.7	735.7	738.6
5°	728.0	740.5	734.7	738.6	745.3
7.5°	723.3	736.7	734.7	742.4	753.0
10°	716.5	731.9	736.7	750.1	761.6
12.5°	708.9	725.2	737.6	758.7	773.1
15°	698.3	718.5	739.5	769.2	788.4
17.5°	685.9	709.8	739.5	780.7	802.8
20°	671.5	699.3	739.5	790.3	817.1
22.5°	656.2	686.9	738.6	798.9	831.5
25°	639.0	673.4	735.7	807.6	844.0
27.5°	620.8	658.1	730.9	814.3	853.5
30°	600.6	640.9	724.2	817.1	856.4
32.5°	578.6	622.7	714.6	811.4	844.9
35°	556.6	601.6	702.2	793.2	809.5
37.5°	532.6	579.6	685.9	757.7	757.7
40°	507.7	555.6	665.8	708.9	706.0
42.5°	482.8	530.7	639.9	661.0	651.4
45°	456.9	504.8	606.4	611.2	596.8
47.5°	429.2	476.1	567.1	560.4	544.1
50°	401.4	447.4	523.0	511.5	495.3
52.5°	373.6	417.7	480.9	464.6	450.2
55°	343.9	386.1	437.8	419.6	406.2
57.5°	315.2	354.4	396.6	376.5	365.0
60°	286.4	321.9	355.4	336.2	325.7
62.5°	257.7	288.3	316.1	297.0	287.4
65°	229.0	254.8	276.8	259.6	251.0
67.5°	199.3	222.2	237.6	222.2	216.5
70°	170.5	188.7	200.2	186.8	182.0
72.5°	141.8	157.1	164.8	154.2	149.4
75°	114.0	125.5	131.2	121.7	118.8
77.5°	87.2	95.8	98.7	92.0	88.1
80°	63.2	68.0	69.9	65.1	63.2
82.5°	39.3	43.1	45.0	41.2	40.2
85°	21.1	23.0	23.0	23.0	22.0
87.5°	7.7	9.6	9.6	9.6	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	20.64	22.26	21.01	22.57	22.88	21.16	22.77	21.52	23.08	23.40
	3H	22.21	23.67	22.59	23.99	24.35	22.62	24.08	23.00	24.40	24.76
	4H	22.75	24.12	23.15	24.46	24.84	23.12	24.48	23.52	24.83	25.21
	6H	23.09	24.36	23.50	24.72	25.11	23.42	24.68	23.83	25.05	25.44
	8H	23.18	24.38	23.60	24.77	25.17	23.49	24.70	23.92	25.09	25.49
	12H	23.21	24.37	23.64	24.75	25.18	23.52	24.68	23.95	25.06	25.49
4H	2H	21.40	22.76	21.80	23.11	23.49	21.80	23.16	22.19	23.51	23.89
	3H	23.17	24.31	23.58	24.71	25.11	23.46	24.60	23.87	25.00	25.40
	4H	23.82	24.84	24.25	25.26	25.69	24.06	25.08	24.49	25.50	25.93
	6H	24.26	25.15	24.71	25.60	26.05	24.45	25.35	24.91	25.79	26.25
	8H	24.37	25.21	24.83	25.65	26.11	24.55	25.39	25.01	25.83	26.30
	12H	24.43	25.18	24.91	25.66	26.13	24.61	25.36	25.09	25.84	26.31
8H	4H	24.10	24.94	24.56	25.38	25.84	24.31	25.15	24.77	25.59	26.06
	6H	24.64	25.33	25.13	25.82	26.30	24.80	25.49	25.29	25.98	26.46
	8H	24.80	25.42	25.31	25.93	26.41	24.94	25.56	25.45	26.07	26.56
	12H	24.90	25.45	25.41	25.94	26.50	25.04	25.59	25.55	26.08	26.65
12H	4H	24.11	24.86	24.59	25.34	25.81	24.33	25.08	24.81	25.56	26.03
	6H	24.67	25.29	25.18	25.80	26.28	24.82	25.45	25.33	25.96	26.44
	8H	24.87	25.42	25.38	25.91	26.47	25.01	25.56	25.52	26.05	26.62