

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P998500

Luminaire Tested: SA2XXDIP-B485D530UB27-4F0-XX-W2A-D4

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P998500
REPORT IS A COMBINATION OF REPORTS P984243 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B485D530UB27-4F0-XX-W2A-D4
Description: Define 2 Direct/Indirect Pendant with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

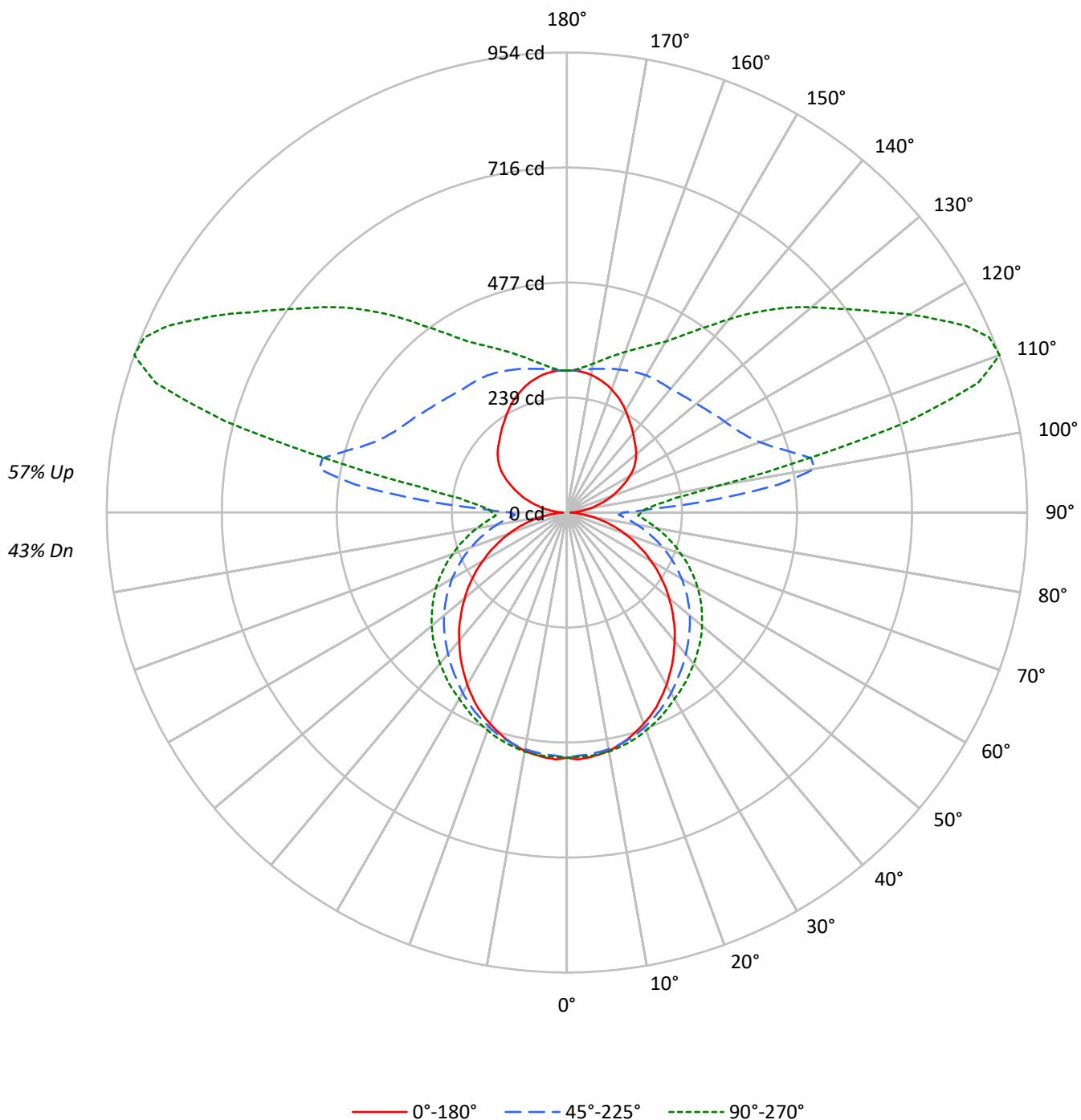
Lumens per Lamp: N/A
Luminaire Lumens: 3996.3 lumens
Efficiency: N/A
Efficacy: 101.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 39.4
Input Voltage (V):
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					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	106	106	106	106	96	96	96	96	80	80	80	64	64	64	50	50	50	43		
1	95	90	86	82	86	82	79	75	68	65	63	54	52	51	42	41	40	34		
2	86	78	71	66	78	71	65	61	59	54	51	47	44	41	36	34	32	27		
3	78	68	60	54	71	62	55	50	51	46	42	41	37	34	32	29	27	22		
4	71	60	52	45	65	55	48	42	45	40	35	36	32	29	28	25	23	19		
5	65	53	45	39	59	49	41	36	40	35	30	32	28	25	25	22	20	16		
6	60	47	39	33	54	44	36	31	36	30	26	29	25	22	23	20	17	14		
7	55	43	35	29	50	39	32	27	33	27	23	26	22	19	21	17	15	12		
8	51	39	31	25	47	36	29	24	30	24	20	24	20	17	19	16	13	11		
9	48	35	28	22	43	32	26	21	27	22	18	22	18	15	17	14	12	10		
10	44	32	25	20	40	30	23	19	25	20	16	20	16	13	16	13	11	9		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8052	8052	8052
5°	8089	7708	7665
10°	8035	7442	7332
15°	7921	7166	6992
20°	7777	6876	6670
25°	7636	6597	6376
30°	7440	6315	6085
35°	7240	6043	5873
40°	7027	5809	5661
45°	6827	5595	5476
50°	6612	5398	5294
55°	6384	5190	5108
60°	6108	4972	4913
65°	5819	4722	4689
70°	5491	4454	4447
75°	5074	4184	4219
80°	4415	3905	3984
85°	3743	3641	3779

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 6827 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.2	1.2
10°-20°	138.3	3.5
20°-30°	209.6	5.2
30°-40°	255.2	6.4
40°-50°	274.6	6.9
50°-60°	266.6	6.7
60°-70°	232.9	5.8
70°-80°	179.2	4.5
80°-90°	121.9	3.1
90°-100°	202.2	5.1
100°-110°	464.1	11.6
110°-120°	464.2	11.6
120°-130°	371.1	9.3
130°-140°	289.7	7.2
140°-150°	213.4	5.3
150°-160°	148.9	3.7
160°-170°	87.7	2.2
170°-180°	28.5	0.7
0°-30°	396.1	9.9
0°-40°	651.3	16.3
0°-60°	1192.5	29.8
0°-90°	1726.5	43.2
90°-120°	1130.5	28.3
90°-150°	2004.7	50.2
90°-180°	2270.0	56.8
0°-180°	3996.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	509	509	509	509	509	
5°	510	508	504	508	507	48
15°	487	488	488	495	494	137
25°	442	448	454	463	465	203
35°	381	394	408	424	429	238
45°	313	332	358	381	388	241
55°	240	266	304	331	341	214
65°	164	200	243	274	283	163
75°	91	132	179	211	220	96
85°	26	72	119	150	161	28
90°	8	58	117	145	154	6
95°	26	89	307	197	186	25
105°	73	129	483	839	736	78
115°	125	165	395	791	914	123
125°	171	203	363	632	733	153
135°	200	239	342	517	594	155
145°	228	262	332	416	459	143
155°	259	280	322	364	379	119
165°	282	291	309	327	332	80
175°	294	294	297	300	300	28
180°	294	294	294	294	294	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	508.7	508.7	508.7	508.7	508.7
2.5°	512.4	510.2	505.0	508.7	507.2
5°	510.2	508.0	503.5	508.0	507.2
7.5°	506.5	505.0	501.3	506.5	505.7
10°	502.1	500.6	498.4	504.3	503.5
12.5°	494.7	495.4	493.9	499.8	499.1
15°	486.6	488.1	488.1	494.7	493.9
17.5°	476.3	479.2	481.4	488.1	488.1
20°	465.9	469.6	472.6	480.7	480.7
22.5°	454.9	459.3	463.7	471.8	473.3
25°	442.3	447.5	454.1	463.0	465.2
27.5°	427.6	435.7	443.1	454.1	455.6
30°	412.9	422.4	432.0	443.8	446.0
32.5°	396.6	407.7	419.5	433.5	437.9
35°	381.2	393.7	407.7	423.9	429.1
37.5°	364.2	378.2	395.9	413.6	418.8
40°	347.2	363.5	383.4	402.5	409.2
42.5°	331.0	347.2	370.8	392.2	398.8
45°	312.6	332.5	358.3	381.2	388.5
47.5°	294.9	316.3	345.8	369.4	377.5
50°	276.5	299.3	332.5	357.6	365.7
52.5°	258.8	283.1	318.5	344.3	353.1
55°	239.6	266.1	304.5	331.0	340.6
57.5°	221.2	250.7	289.0	317.7	327.3
60°	201.3	233.0	275.0	303.0	313.3
62.5°	183.6	216.7	258.8	289.0	298.6
65°	163.7	199.8	243.3	273.5	283.1
67.5°	146.0	183.6	227.8	258.0	268.4
70°	126.8	165.1	210.9	242.6	251.4
72.5°	109.1	148.9	195.4	226.3	237.4
75°	90.7	132.0	179.1	210.9	220.4
77.5°	73.0	115.7	163.7	195.4	205.7
80°	55.3	100.3	148.2	179.1	189.5
82.5°	40.5	84.8	133.4	164.4	174.0
85°	26.5	72.2	119.4	150.4	160.7
87.5°	16.2	60.5	107.6	137.9	147.4
90°	8.0	57.8	116.6	145.2	154.4
92.5°	15.1	72.6	177.9	159.6	162.9
95°	25.7	89.2	306.8	196.6	186.2
97.5°	34.7	101.2	441.5	275.1	223.9
100°	48.8	111.2	521.2	436.0	311.9
102.5°	61.0	120.6	518.9	661.5	498.5
105°	72.8	129.3	483.1	839.4	735.6
107.5°	86.4	138.0	449.6	900.0	893.4
110°	99.2	147.1	425.9	883.4	954.4

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	111.6	156.3	408.4	841.6	948.1
115°	124.7	164.8	395.4	791.1	914.5
117.5°	137.6	174.0	385.7	743.2	866.7
120°	150.0	183.0	377.4	699.0	821.2
122.5°	161.9	192.9	370.6	664.1	772.7
125°	171.4	202.6	362.7	632.0	733.0
127.5°	179.9	212.2	356.5	603.2	694.8
130°	187.3	221.6	350.9	574.8	662.3
132.5°	194.1	230.6	346.0	545.6	629.4
135°	200.1	238.6	341.7	517.0	594.2
137.5°	206.3	245.4	338.0	487.9	559.4
140°	213.7	251.0	334.5	461.9	523.5
142.5°	221.0	256.0	333.0	437.3	488.3
145°	227.7	261.6	331.9	416.4	459.0
147.5°	235.6	266.2	330.2	398.3	431.7
150°	243.6	270.7	328.5	385.2	409.5
152.5°	251.5	275.2	325.7	374.6	393.1
155°	258.8	279.6	322.3	364.5	378.9
157.5°	265.1	282.9	318.9	354.8	366.5
160°	271.3	286.3	315.5	345.2	354.6
162.5°	277.5	288.8	312.7	336.2	343.2
165°	282.1	290.6	308.7	327.4	332.5
167.5°	286.0	292.2	305.3	319.5	322.3
170°	290.0	293.2	302.5	312.1	313.2
172.5°	292.3	294.0	299.1	305.6	305.9
175°	294.0	294.2	296.8	300.5	299.6
177.5°	295.1	294.5	294.5	296.8	295.1
180°	294.5	294.5	294.5	294.5	294.5

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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	11.80	12.65	12.81	13.67	15.03	14.88	15.72	15.88	16.74	18.10
	3H	13.26	14.03	14.28	15.06	16.44	17.47	18.23	18.48	19.26	20.64
	4H	13.74	14.46	14.76	15.50	16.88	18.72	19.44	19.74	20.48	21.86
	6H	14.02	14.69	15.06	15.73	17.13	20.01	20.69	21.05	21.72	23.12
	8H	14.08	14.72	15.12	15.77	17.17	20.67	21.31	21.71	22.37	23.76
	12H	14.10	14.71	15.14	15.75	17.18	21.40	22.01	22.44	23.06	24.48
4H	2H	12.85	13.58	13.88	14.61	16.00	15.21	15.93	16.24	16.96	18.35
	3H	14.56	15.17	15.60	16.23	17.63	18.00	18.61	19.04	19.67	21.07
	4H	15.18	15.75	16.23	16.80	18.22	19.41	19.98	20.46	21.03	22.45
	6H	15.59	16.09	16.65	17.16	18.58	20.88	21.37	21.93	22.45	23.86
	8H	15.70	16.16	16.76	17.23	18.67	21.64	22.10	22.69	23.16	24.60
	12H	15.74	16.17	16.82	17.25	18.69	22.46	22.88	23.54	23.97	25.41
8H	4H	15.97	16.43	17.02	17.50	18.93	19.56	20.02	20.61	21.08	22.52
	6H	16.60	16.99	17.68	18.10	19.53	21.18	21.57	22.26	22.68	24.11
	8H	16.82	17.17	17.91	18.26	19.71	22.07	22.42	23.16	23.51	24.96
	12H	16.96	17.26	18.05	18.35	19.83	23.07	23.37	24.16	24.46	25.95
12H	4H	16.17	16.59	17.24	17.67	19.11	19.53	19.95	20.60	21.03	22.47
	6H	16.94	17.28	18.02	18.37	19.82	21.21	21.55	22.29	22.64	24.09
	8H	17.24	17.54	18.33	18.63	20.12	22.14	22.44	23.23	23.53	25.02