

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: P998442

Luminaire Tested: SA2XXDIP-B485D330UB27-4F0-XX-W2A-F1

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P998442
REPORT IS A COMBINATION OF REPORTS P984185 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B485D330UB27-4F0-XX-W2A-F1
Description: Define 2 Direct/Indirect Pendant with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

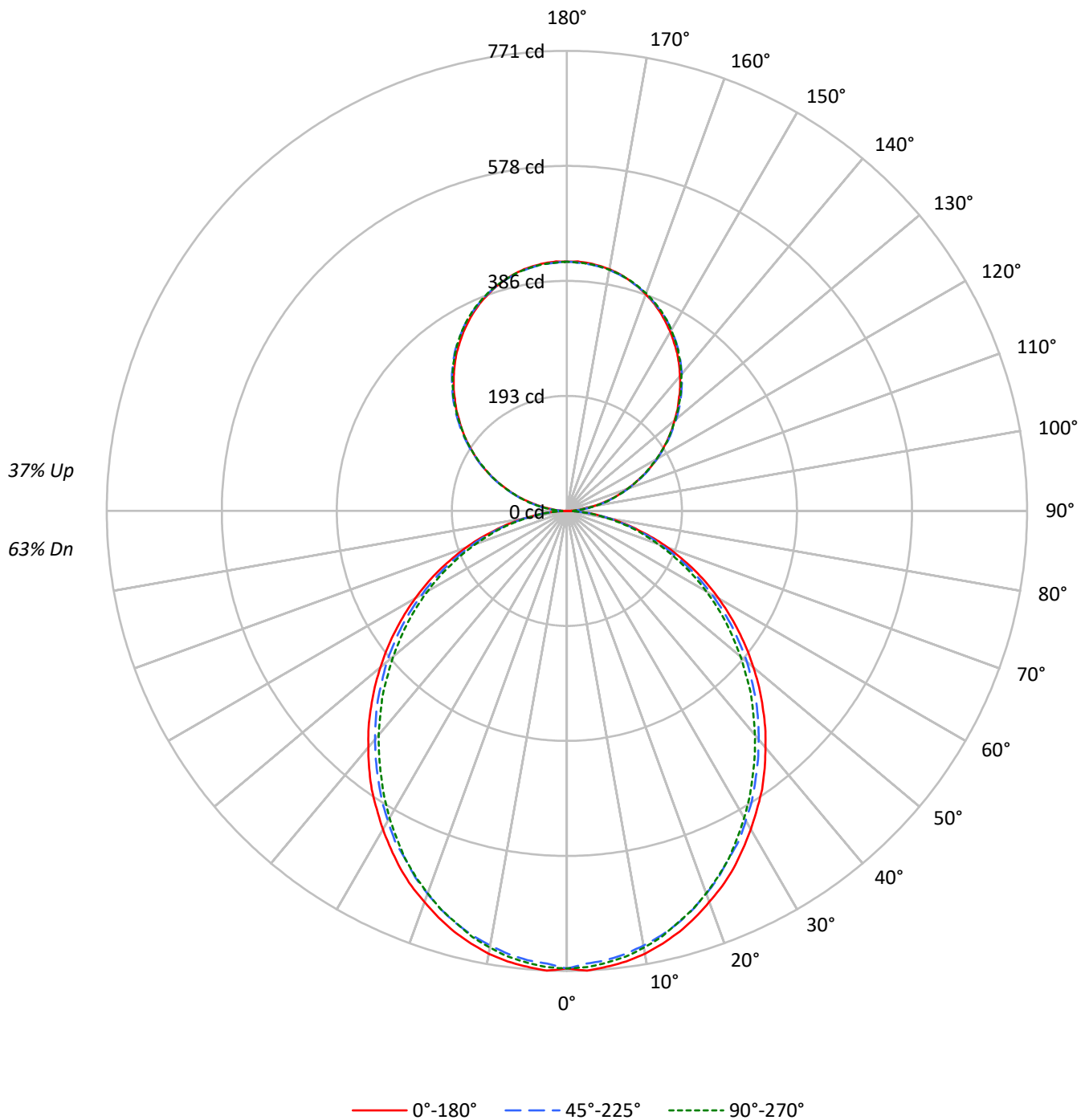
Lumens per Lamp: N/A
Luminaire Lumens: 3120.0 lumens
Efficiency: N/A
Efficacy: 93.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 33.3
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				10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	110	110	110	110	103	103	103	103	90	90	90	79	79	79	68	68	68
1	101	96	92	89	94	90	87	84	79	77	74	69	67	65	60	58	57
2	92	84	78	72	86	79	73	69	70	65	62	61	58	55	53	50	48
3	84	74	66	60	78	70	63	57	61	56	52	54	50	46	47	44	41
4	77	65	57	51	71	62	54	49	55	49	44	48	43	40	42	38	35
5	70	58	50	44	66	55	48	42	49	43	38	43	38	35	38	34	31
6	65	53	44	38	61	50	42	37	44	38	33	39	34	30	34	30	27
7	60	47	39	34	56	45	38	32	40	34	30	36	31	27	31	27	24
8	56	43	35	30	52	41	34	29	37	31	26	33	28	24	29	25	22
9	52	40	32	27	49	37	30	26	34	28	24	30	25	22	27	23	20
10	49	36	29	24	46	34	28	23	31	25	21	28	23	20	25	21	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12139	12139	12139
5°	12159	11571	11488
10°	12060	11044	10825
15°	11883	10512	10125
20°	11644	9934	9464
25°	11407	9330	8802
30°	11106	8764	8109
35°	10825	8165	7428
40°	10476	7574	6783
45°	10129	6989	6152
50°	9752	6394	5497
55°	9353	5755	4877
60°	8906	5066	4232
65°	8415	4365	3554
70°	7791	3597	2869
75°	6931	2773	2216
80°	5884	1884	1425
85°	4266	878	607

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 10129 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.2	2.3
10°-20°	203.1	6.5
20°-30°	298.4	9.6
30°-40°	346.6	11.1
40°-50°	346.2	11.1
50°-60°	301.9	9.7
60°-70°	223.1	7.2
70°-80°	126.3	4.0
80°-90°	34.5	1.1
90°-100°	25.8	0.8
100°-110°	82.1	2.6
110°-120°	140.6	4.5
120°-130°	184.8	5.9
130°-140°	207.5	6.7
140°-150°	203.5	6.5
150°-160°	170.7	5.5
160°-170°	113.2	3.6
170°-180°	39.6	1.3
0°-30°	573.7	18.4
0°-40°	920.3	29.5
0°-60°	1568.3	50.3
0°-90°	1952.2	62.6
90°-120°	248.5	8.0
90°-150°	844.4	27.1
90°-180°	1168.0	37.4
0°-180°	3120.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	767	767	767	767	767	
5°	767	764	756	762	760	73
15°	730	726	716	719	715	206
25°	661	655	642	644	642	304
35°	570	563	551	546	543	356
45°	464	459	448	440	436	358
55°	351	347	338	329	325	314
65°	237	232	225	218	215	234
75°	124	122	119	114	116	132
85°	30	30	29	26	26	34
90°	0	5	12	12	12	3
95°	18	22	23	23	22	20
105°	76	77	78	78	78	80
115°	141	143	142	142	141	139
125°	205	208	207	206	206	183
135°	265	269	270	270	269	205
145°	322	325	327	327	326	201
155°	368	369	370	372	371	170
165°	401	400	400	403	401	113
175°	417	416	415	418	416	40
180°	418	418	418	418	418	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	766.9	766.9	766.9	766.9	766.9
2.5°	771.3	767.6	759.5	766.9	765.4
5°	766.9	763.9	755.8	761.7	760.2
7.5°	761.7	757.3	749.2	755.1	753.6
10°	753.6	748.4	739.6	745.5	743.3
12.5°	742.5	738.1	729.2	732.9	731.5
15°	730.0	725.6	716.0	718.9	715.2
17.5°	714.5	710.1	700.5	704.2	700.5
20°	697.5	693.1	682.8	685.0	682.1
22.5°	680.6	673.9	664.4	664.4	662.9
25°	660.7	654.8	642.2	643.7	642.2
27.5°	638.6	633.4	623.8	621.6	617.9
30°	616.4	610.5	599.5	597.3	594.3
32.5°	592.8	588.4	576.6	572.2	569.2
35°	570.0	562.6	550.8	546.4	542.7
37.5°	544.2	537.5	525.7	520.6	516.9
40°	517.6	511.7	499.9	493.3	490.3
42.5°	491.8	485.9	474.1	466.7	462.3
45°	463.8	458.6	447.6	439.5	436.5
47.5°	436.5	431.4	419.6	411.4	407.0
50°	407.8	404.1	393.8	383.4	379.7
52.5°	379.7	374.6	365.0	356.9	351.7
55°	351.0	346.6	337.7	328.9	325.2
57.5°	322.2	318.5	309.0	300.1	297.2
60°	293.5	290.5	280.2	272.1	269.9
62.5°	265.4	260.3	252.9	245.5	242.6
65°	236.7	232.3	224.9	218.3	214.6
67.5°	207.2	203.5	196.9	191.7	188.8
70°	179.9	177.0	170.3	165.2	162.2
72.5°	151.9	148.9	145.3	140.1	137.9
75°	123.9	122.4	118.7	114.3	115.8
77.5°	98.8	95.9	94.4	92.2	90.0
80°	73.7	73.0	71.5	69.3	67.8
82.5°	50.1	50.1	49.4	46.5	46.5
85°	30.2	29.5	28.8	26.5	25.8
87.5°	13.3	11.8	10.3	8.1	7.4
90°	0.4	4.6	12.3	11.6	12.0
92.5°	7.8	10.6	10.9	11.3	11.3
95°	18.3	21.9	22.6	22.6	21.9
97.5°	30.7	33.8	35.2	35.2	35.2
100°	44.8	47.6	48.6	48.6	48.3
102.5°	59.6	61.7	63.1	63.4	63.1
105°	75.8	76.8	77.5	78.3	78.3
107.5°	92.0	93.4	93.4	93.8	92.0
110°	107.5	109.6	109.6	109.6	108.6

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	124.4	126.5	126.2	125.1	124.4
115°	141.0	143.1	142.4	142.1	141.0
117.5°	157.6	160.4	158.6	157.6	156.5
120°	174.1	176.9	174.1	174.1	173.1
122.5°	189.3	192.8	191.0	190.0	189.3
125°	205.1	208.3	207.3	206.2	205.9
127.5°	220.7	224.5	223.1	221.7	220.7
130°	235.1	239.7	239.0	238.3	236.9
132.5°	251.3	254.9	255.2	253.4	252.4
135°	265.4	269.3	270.0	269.7	268.6
137.5°	280.9	284.1	284.8	284.5	283.0
140°	294.7	297.9	299.6	299.6	298.2
142.5°	308.8	312.0	313.0	313.4	312.0
145°	322.2	324.6	326.8	327.1	325.7
147.5°	334.2	337.3	338.7	339.4	338.0
150°	346.5	348.6	350.0	351.1	350.0
152.5°	357.4	359.5	361.3	362.7	361.3
155°	368.4	369.4	370.5	372.2	371.2
157.5°	377.9	378.6	379.3	381.7	380.0
160°	386.3	387.0	387.4	389.5	388.1
162.5°	394.1	394.1	394.4	396.9	395.1
165°	400.8	400.4	400.4	402.9	401.1
167.5°	406.8	405.7	405.7	408.2	406.4
170°	411.4	410.3	409.9	412.4	410.3
172.5°	414.5	413.5	413.1	415.6	413.5
175°	417.0	415.9	415.2	417.7	415.6
177.5°	418.4	417.3	416.6	418.8	416.6
180°	417.7	417.7	417.7	417.7	417.7

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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	14.99	15.98	15.83	16.84	17.92	15.78	16.76	16.62	17.63	18.71
	3H	16.34	17.23	17.19	18.10	19.21	17.41	18.30	18.26	19.17	20.28
	4H	16.75	17.59	17.62	18.47	19.58	18.01	18.85	18.88	19.73	20.84
	6H	16.98	17.75	17.86	18.64	19.77	18.42	19.19	19.30	20.08	21.21
	8H	17.01	17.75	17.90	18.65	19.78	18.53	19.27	19.42	20.17	21.30
	12H	17.01	17.71	17.90	18.61	19.76	18.58	19.28	19.48	20.18	21.34
4H	2H	15.48	16.31	16.35	17.19	18.31	16.12	16.96	17.00	17.84	18.96
	3H	17.01	17.71	17.89	18.62	19.75	17.91	18.61	18.80	19.52	20.66
	4H	17.52	18.15	18.42	19.06	20.22	18.60	19.24	19.50	20.14	21.30
	6H	17.83	18.38	18.74	19.31	20.47	19.10	19.65	20.02	20.59	21.75
	8H	17.89	18.40	18.80	19.33	20.50	19.25	19.76	20.16	20.69	21.86
	12H	17.89	18.36	18.83	19.30	20.48	19.32	19.78	20.25	20.73	21.90
8H	4H	17.70	18.22	18.62	19.14	20.32	18.70	19.21	19.61	20.14	21.31
	6H	18.09	18.52	19.03	19.49	20.66	19.27	19.70	20.21	20.66	21.84
	8H	18.20	18.57	19.15	19.53	20.72	19.46	19.84	20.41	20.80	21.99
	12H	18.23	18.57	19.19	19.52	20.76	19.56	19.90	20.52	20.85	22.09
12H	4H	17.69	18.16	18.63	19.10	20.28	18.67	19.13	19.60	20.07	21.25
	6H	18.11	18.49	19.06	19.45	20.64	19.26	19.64	20.21	20.60	21.79
	8H	18.23	18.56	19.18	19.51	20.75	19.46	19.80	20.42	20.75	21.99