

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: P998601

Luminaire Tested: SA2XXDIP-B485D725UB40-4F0-XX-W2A-D1

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P998601
REPORT IS A COMBINATION OF REPORTS P984344 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B485D725UB40-4F0-XX-W2A-D1
Description: Define 2 Direct/Indirect Pendant with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

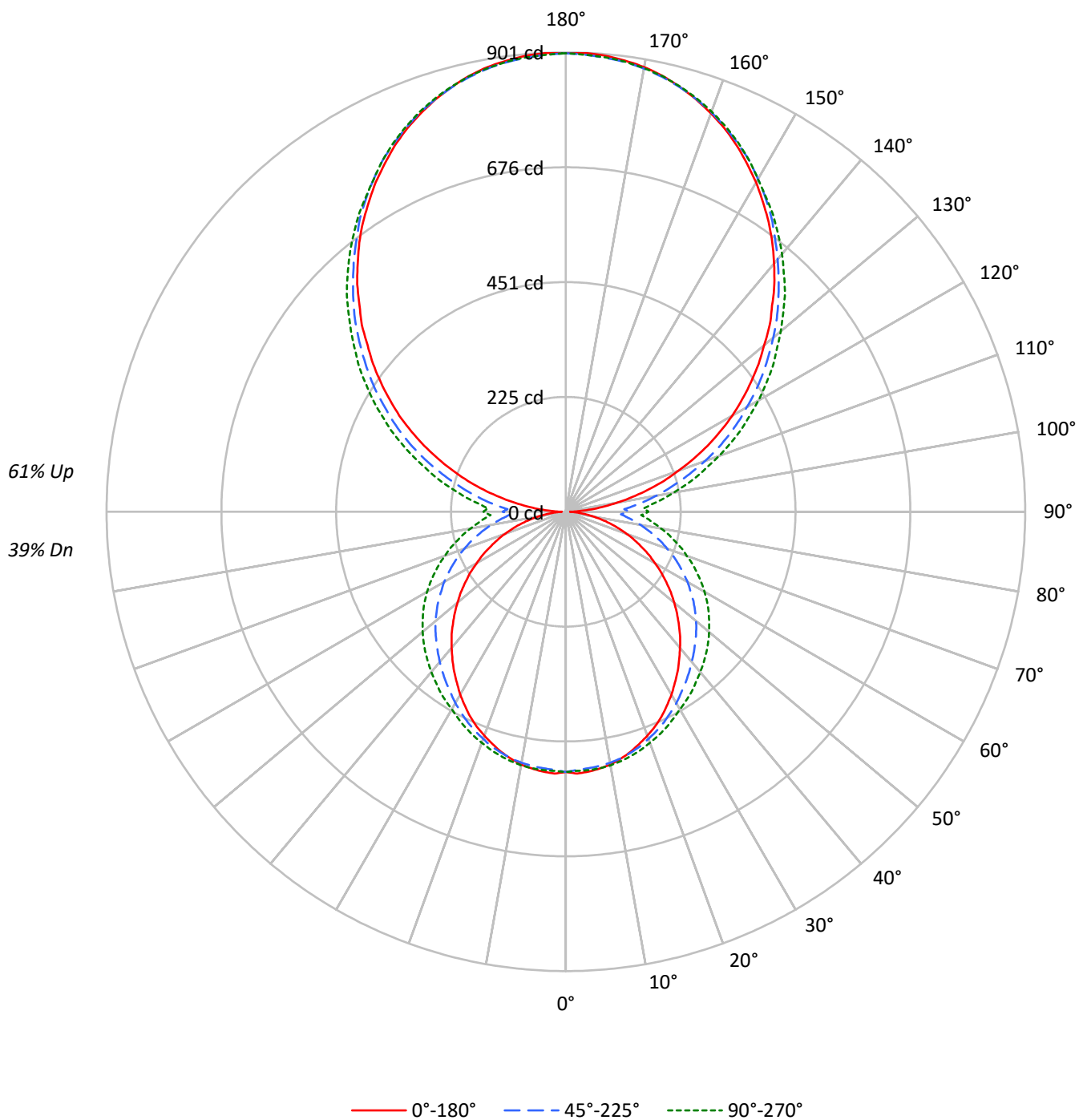
Lumens per Lamp: N/A
Luminaire Lumens: 4464.0 lumens
Efficiency: N/A
Efficacy: 99.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 45.1
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	104	104	104	104	95	95	95	95	77	77	77	61	61	61	46	46	46
1	94	89	85	81	85	81	77	74	66	63	61	52	50	48	39	37	36
2	85	77	71	65	77	70	65	60	57	53	49	45	42	39	33	31	30
3	77	68	60	54	70	61	55	49	50	45	41	39	36	33	29	27	25
4	71	59	51	45	64	54	47	42	44	39	34	35	31	28	26	23	21
5	65	53	44	38	58	48	41	35	39	34	29	31	27	24	23	20	18
6	59	47	39	33	54	43	36	30	35	30	25	28	24	21	21	18	16
7	55	42	34	29	49	39	32	27	32	26	22	25	21	18	19	16	14
8	51	38	31	25	46	35	28	23	29	23	20	23	19	16	17	15	12
9	47	35	27	22	43	32	25	21	26	21	17	21	17	14	16	13	11
10	44	32	25	20	40	29	23	18	24	19	16	19	15	13	15	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8078	8078	8078
5°	8113	7733	7689
10°	8059	7464	7356
15°	7946	7188	7014
20°	7802	6896	6690
25°	7660	6618	6395
30°	7461	6336	6104
35°	7260	6063	5891
40°	7049	5826	5678
45°	6849	5612	5493
50°	6631	5415	5310
55°	6403	5205	5125
60°	6127	4986	4929
65°	5837	4736	4704
70°	5509	4467	4462
75°	5091	4198	4232
80°	4431	3916	3996
85°	3757	3653	3791

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 6849 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.4	1.1
10°-20°	138.7	3.1
20°-30°	210.2	4.7
30°-40°	256.0	5.7
40°-50°	275.4	6.2
50°-60°	267.5	6.0
60°-70°	233.6	5.2
70°-80°	179.8	4.0
80°-90°	123.0	2.8
90°-100°	138.7	3.1
100°-110°	237.5	5.3
110°-120°	342.7	7.7
120°-130°	420.3	9.4
130°-140°	456.1	10.2
140°-150°	439.7	9.8
150°-160°	367.5	8.2
160°-170°	243.7	5.5
170°-180°	85.2	1.9
0°-30°	397.3	8.9
0°-40°	653.3	14.6
0°-60°	1196.2	26.8
0°-90°	1732.5	38.8
90°-120°	718.9	16.1
90°-150°	2035.1	45.6
90°-180°	2732.0	61.2
0°-180°	4464.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	510	510	510	510	510	
5°	512	510	505	510	509	49
15°	488	490	490	496	496	137
25°	444	449	456	464	467	204
35°	382	395	409	425	430	239
45°	314	334	359	382	390	242
55°	240	267	305	332	342	215
65°	164	200	244	274	284	163
75°	91	132	180	212	221	96
85°	27	72	120	151	161	28
90°	8	60	124	152	162	8
95°	45	88	134	162	169	49
105°	167	191	231	258	266	177
115°	307	319	351	372	378	303
125°	443	450	471	489	495	396
135°	572	580	590	604	608	442
145°	694	699	704	709	709	434
155°	793	795	798	802	799	365
165°	863	862	862	868	864	243
175°	898	896	894	899	895	85
180°	899	899	899	899	899	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	510.3	510.3	510.3	510.3	510.3
2.5°	514.0	511.7	506.6	510.3	508.8
5°	511.7	509.5	505.1	509.5	508.8
7.5°	508.0	506.6	502.9	508.0	507.3
10°	503.6	502.1	499.9	505.8	505.1
12.5°	496.2	497.0	495.5	501.4	500.7
15°	488.1	489.6	489.6	496.2	495.5
17.5°	477.7	480.7	482.9	489.6	489.6
20°	467.4	471.1	474.0	482.2	482.2
22.5°	456.3	460.7	465.2	473.3	474.8
25°	443.7	448.9	455.5	464.4	466.6
27.5°	428.9	437.1	444.4	455.5	457.0
30°	414.1	423.7	433.4	445.2	447.4
32.5°	397.9	409.0	420.8	434.8	439.3
35°	382.3	394.9	409.0	425.2	430.4
37.5°	365.3	379.4	397.1	414.9	420.0
40°	348.3	364.6	384.5	403.8	410.4
42.5°	332.0	348.3	372.0	393.4	400.1
45°	313.6	333.5	359.4	382.3	389.7
47.5°	295.8	317.3	346.8	370.5	378.6
50°	277.3	300.2	333.5	358.7	366.8
52.5°	259.6	284.0	319.5	345.4	354.2
55°	240.3	267.0	305.4	332.0	341.7
57.5°	221.9	251.4	289.9	318.7	328.3
60°	201.9	233.7	275.8	303.9	314.3
62.5°	184.1	217.4	259.6	289.9	299.5
65°	164.2	200.4	244.0	274.4	284.0
67.5°	146.4	184.1	228.5	258.8	269.2
70°	127.2	165.7	211.5	243.3	252.2
72.5°	109.4	149.4	196.0	227.0	238.1
75°	91.0	132.4	179.7	211.5	221.1
77.5°	73.2	116.1	164.2	196.0	206.3
80°	55.5	100.6	148.6	179.7	190.1
82.5°	40.7	85.0	133.9	164.9	174.5
85°	26.6	72.5	119.8	150.9	161.2
87.5°	16.3	60.6	108.0	138.3	147.9
90°	8.2	60.2	124.2	152.2	161.9
92.5°	23.4	68.7	114.5	144.1	153.0
95°	45.4	87.8	133.6	161.7	169.1
97.5°	71.2	109.9	155.8	183.1	192.0
100°	101.6	135.0	178.7	206.0	213.4
102.5°	132.7	161.6	204.7	232.0	239.4
105°	166.9	190.6	230.6	258.0	266.1
107.5°	201.8	222.5	259.5	285.5	289.8
110°	234.5	253.7	290.0	313.6	319.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	270.9	287.3	320.5	341.9	348.5
115°	306.6	319.2	351.0	372.5	378.3
117.5°	341.5	353.4	380.7	400.7	405.8
120°	377.1	386.2	409.7	430.4	436.2
122.5°	409.8	418.1	441.7	459.4	464.5
125°	443.2	450.0	471.4	489.1	495.0
127.5°	476.6	484.2	501.1	516.6	521.0
130°	507.7	516.8	530.9	547.1	549.9
132.5°	542.6	549.4	561.3	574.5	578.2
135°	572.2	580.5	589.5	604.3	607.9
137.5°	605.6	612.4	617.6	631.0	633.1
140°	635.2	641.3	646.6	658.4	659.8
142.5°	665.5	671.7	674.0	683.6	684.3
145°	693.7	699.0	703.6	708.7	709.4
147.5°	719.5	726.3	729.4	731.6	730.8
150°	746.1	750.6	753.6	755.9	753.6
152.5°	769.6	774.1	777.9	781.0	777.9
155°	793.1	795.4	797.7	801.5	799.2
157.5°	813.6	815.1	816.6	821.9	818.2
160°	831.8	833.3	834.1	838.6	835.6
162.5°	848.5	848.5	849.3	854.6	850.8
165°	862.9	862.2	862.2	867.5	863.7
167.5°	875.8	873.6	873.6	878.9	875.1
170°	885.7	883.4	882.7	888.0	883.4
172.5°	892.5	890.3	889.5	894.8	890.3
175°	897.8	895.6	894.0	899.4	894.8
177.5°	900.9	898.6	897.1	901.6	897.1
180°	899.4	899.4	899.4	899.4	899.4

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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	11.35	12.15	12.39	13.20	14.62	14.42	15.23	15.46	16.28	17.70
	3H	12.81	13.53	13.85	14.59	16.03	17.01	17.74	18.06	18.80	20.23
	4H	13.28	13.97	14.34	15.03	16.48	18.26	18.95	19.32	20.01	21.46
	6H	13.56	14.20	14.63	15.27	16.72	19.55	20.19	20.62	21.26	22.72
	8H	13.62	14.23	14.69	15.31	16.76	20.21	20.82	21.29	21.90	23.36
	12H	13.63	14.21	14.71	15.29	16.77	20.94	21.52	22.01	22.59	24.07
4H	2H	12.39	13.09	13.46	14.15	15.59	14.75	15.44	15.81	16.50	17.94
	3H	14.10	14.68	15.17	15.77	17.23	17.54	18.12	18.61	19.21	20.67
	4H	14.72	15.26	15.80	16.34	17.81	18.95	19.49	20.03	20.57	22.05
	6H	15.13	15.60	16.22	16.70	18.17	20.42	20.88	21.50	21.99	23.46
	8H	15.24	15.68	16.32	16.77	18.26	21.17	21.61	22.26	22.70	24.19
	12H	15.28	15.68	16.38	16.78	18.28	22.00	22.40	23.10	23.50	25.00
8H	4H	15.50	15.94	16.59	17.04	18.52	19.09	19.53	20.18	20.62	22.11
	6H	16.13	16.50	17.24	17.64	19.12	20.72	21.08	21.83	22.22	23.70
	8H	16.36	16.68	17.47	17.80	19.30	21.61	21.93	22.72	23.05	24.55
	12H	16.49	16.77	17.61	17.89	19.43	22.60	22.88	23.72	24.00	25.54
12H	4H	15.70	16.10	16.80	17.21	18.70	19.06	19.46	20.17	20.57	22.06
	6H	16.47	16.79	17.58	17.91	19.41	20.74	21.07	21.86	22.18	23.69
	8H	16.77	17.06	17.89	18.17	19.71	21.67	21.95	22.79	23.07	24.61

END OF REPORT