

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: P998560

Luminaire Tested: SA2XXDIP-B485D725UB27-4F0-XX-W2A-D4

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P998560
REPORT IS A COMBINATION OF REPORTS P984303 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B485D725UB27-4F0-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

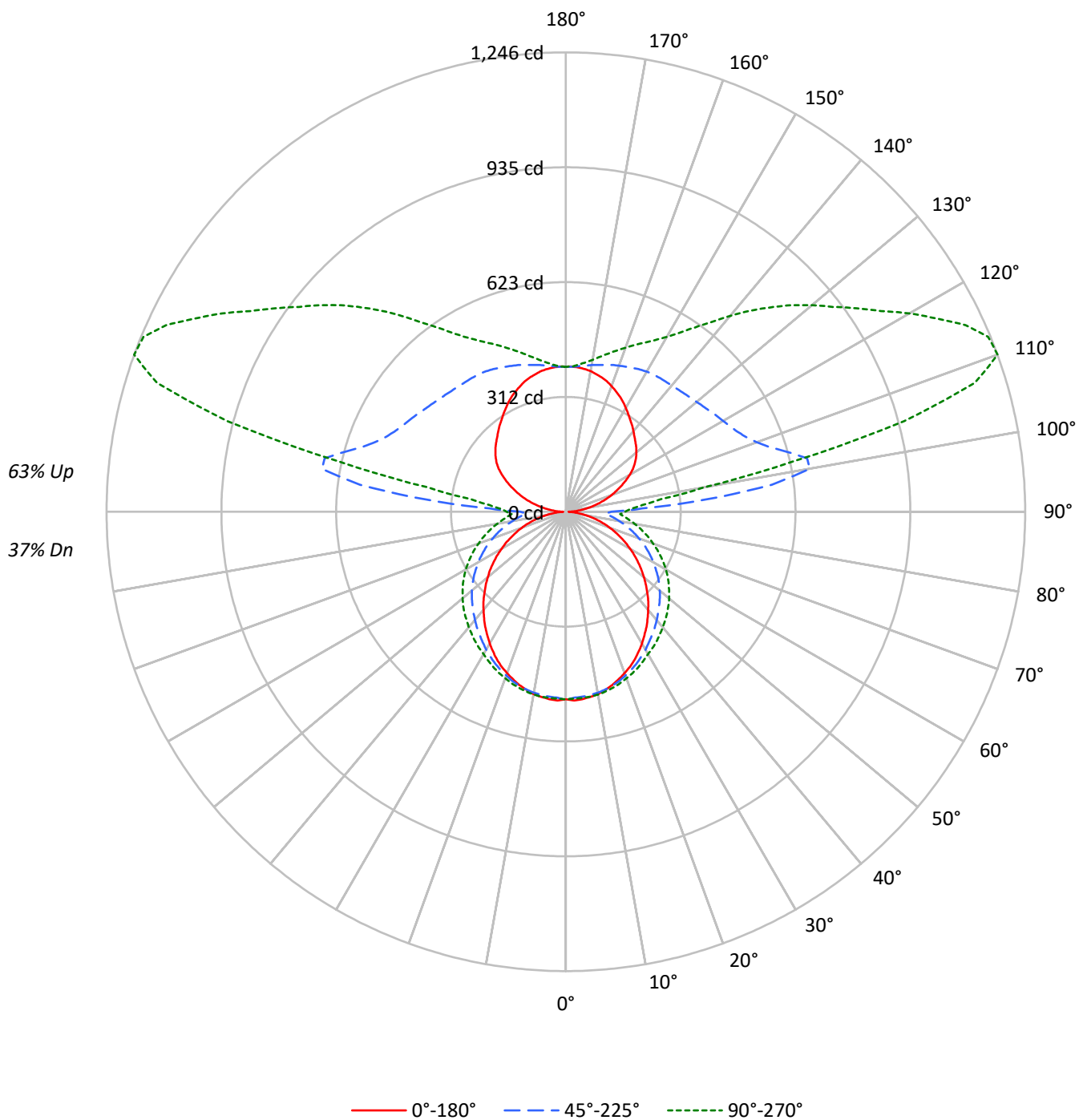
Lumens per Lamp: N/A
Luminaire Lumens: 4687.1 lumens
Efficiency: N/A
Efficacy: 103.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

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	50	30	10
RCR																				
0	104	104	104	104	94	94	94	94	76	76	76	59	59	59	44	44	44	37		
1	94	89	85	81	85	81	77	74	65	62	60	50	49	47	37	36	35	29		
2	85	77	71	65	76	70	64	60	56	52	49	44	41	38	32	30	29	23		
3	77	67	60	54	69	61	54	49	49	44	40	38	35	32	28	26	24	19		
4	70	59	51	45	63	54	47	41	43	38	34	34	30	27	25	22	20	16		
5	64	53	44	38	58	48	41	35	39	33	29	30	26	23	22	20	17	14		
6	59	47	39	33	53	43	35	30	35	29	25	27	23	20	20	17	15	12		
7	55	42	34	29	49	38	31	26	31	26	22	25	21	18	18	15	13	11		
8	51	38	30	25	46	35	28	23	28	23	19	22	18	16	17	14	12	9		
9	47	35	27	22	42	32	25	20	26	21	17	20	17	14	15	13	11	8		
10	44	32	25	20	40	29	23	18	24	19	15	19	15	12	14	12	10	8		

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	1.0
10°-20°	138.3	3.0
20°-30°	209.6	4.5
30°-40°	255.2	5.4
40°-50°	274.6	5.9
50°-60°	266.6	5.7
60°-70°	232.9	5.0
70°-80°	179.2	3.8
80°-90°	122.5	2.6
90°-100°	242.3	5.2
100°-110°	599.8	12.8
110°-120°	606.8	12.9
120°-130°	488.4	10.4
130°-140°	383.9	8.2
140°-150°	284.5	6.1
150°-160°	198.9	4.2
160°-170°	117.1	2.5
170°-180°	38.1	0.8
0°-30°	396.1	8.5
0°-40°	651.3	13.9
0°-60°	1192.5	25.4
0°-90°	1727.1	36.8
90°-120°	1449.0	30.9
90°-150°	2605.8	55.6
90°-180°	2960.0	63.2
0°-180°	4687.1	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	60	123	151	161	7
95°	32	106	382	225	208	32
105°	96	164	624	1092	950	102
115°	166	217	513	1035	1197	164
125°	228	270	476	829	962	203
135°	267	318	454	683	784	207
145°	304	350	444	555	610	191
155°	346	374	431	487	506	159
165°	377	388	412	437	444	106
175°	393	393	396	402	400	37
180°	394	394	394	394	394	

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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°	8.2	60.4	123.0	151.4	160.7
92.5°	18.0	81.6	207.2	173.2	174.5
95°	32.4	105.6	381.5	224.8	207.9
97.5°	44.6	122.8	563.2	331.7	260.2
100°	63.5	137.6	671.5	548.6	380.0
102.5°	80.1	151.4	670.2	851.9	631.4
105°	96.0	164.4	624.2	1091.5	950.2
107.5°	114.2	177.3	581.1	1174.6	1163.0
110°	131.6	190.6	551.0	1154.3	1246.4

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	148.2	203.8	529.2	1100.3	1239.8
115°	165.6	216.6	513.4	1034.7	1196.8
117.5°	183.1	229.8	502.2	972.4	1134.9
120°	199.7	242.8	492.5	915.4	1076.0
122.5°	215.6	256.8	485.0	870.4	1013.4
125°	228.5	270.2	476.1	829.4	962.0
127.5°	239.9	283.3	469.4	792.8	913.0
130°	249.7	295.8	463.4	756.6	871.5
132.5°	258.8	308.0	458.3	719.3	829.3
135°	267.1	318.5	453.8	682.8	784.0
137.5°	275.4	327.7	450.1	645.7	739.5
140°	285.2	335.2	446.5	612.6	693.5
142.5°	295.1	342.0	445.0	581.2	648.2
145°	304.2	349.6	443.5	554.9	610.5
147.5°	314.8	355.6	441.2	532.0	575.8
150°	325.4	361.7	438.9	514.6	547.1
152.5°	336.0	367.8	435.1	500.6	525.2
155°	345.8	373.5	430.6	487.0	506.3
157.5°	354.2	378.0	426.1	474.1	489.6
160°	362.5	382.5	421.5	461.2	473.7
162.5°	370.8	386.0	417.7	449.1	458.6
165°	376.9	388.2	412.4	437.4	444.2
167.5°	382.2	390.5	407.9	426.8	430.6
170°	387.5	391.6	404.1	417.0	418.5
172.5°	390.5	392.8	399.6	408.3	408.7
175°	392.8	393.2	396.5	401.5	400.3
177.5°	394.3	393.5	393.5	396.5	394.3
180°	393.5	393.5	393.5	393.5	393.5

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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	11.12	11.91	12.17	12.97	14.42	14.19	14.98	15.25	16.05	17.49
	3H	12.58	13.29	13.64	14.36	15.82	16.78	17.49	17.84	18.56	20.02
	4H	13.05	13.73	14.12	14.80	16.27	18.03	18.71	19.10	19.78	21.25
	6H	13.33	13.96	14.41	15.03	16.51	19.32	19.95	20.40	21.03	22.51
	8H	13.39	13.98	14.47	15.08	16.55	19.98	20.58	21.07	21.67	23.15
	12H	13.40	13.97	14.49	15.06	16.56	20.70	21.27	21.79	22.36	23.86
4H	2H	12.16	12.84	13.24	13.91	15.38	14.52	15.19	15.60	16.27	17.73
	3H	13.86	14.44	14.95	15.54	17.02	17.30	17.87	18.39	18.97	20.46
	4H	14.48	15.01	15.58	16.10	17.60	18.72	19.24	19.81	20.33	21.84
	6H	14.90	15.35	16.00	16.47	17.96	20.18	20.64	21.28	21.75	23.25
	8H	15.00	15.43	16.10	16.54	18.05	20.94	21.36	22.04	22.47	23.98
	12H	15.04	15.43	16.16	16.55	18.07	21.76	22.15	22.88	23.27	24.79
8H	4H	15.27	15.70	16.37	16.80	18.31	18.86	19.28	19.95	20.39	21.90
	6H	15.90	16.26	17.02	17.40	18.91	20.48	20.84	21.60	21.99	23.49
	8H	16.12	16.44	17.25	17.56	19.09	21.37	21.69	22.50	22.81	24.34
	12H	16.25	16.53	17.38	17.65	19.22	22.36	22.64	23.49	23.77	25.33
12H	4H	15.46	15.85	16.58	16.97	18.49	18.83	19.22	19.94	20.33	21.85
	6H	16.23	16.55	17.36	17.68	19.20	20.51	20.82	21.63	21.95	23.48
	8H	16.53	16.81	17.66	17.94	19.50	21.43	21.71	22.56	22.84	24.40