

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: P930808

Luminaire Tested: DFN2DS-SQ2F0-030DS935-RLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930808
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P333882)
Test Lab: INNOVATION CENTER
Issue Date: 11/20/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: DFN2DS-SQ2F0-030DS935-RLL
Description: 2 foot, Square Define Geo, with Direct 1in Regressed Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

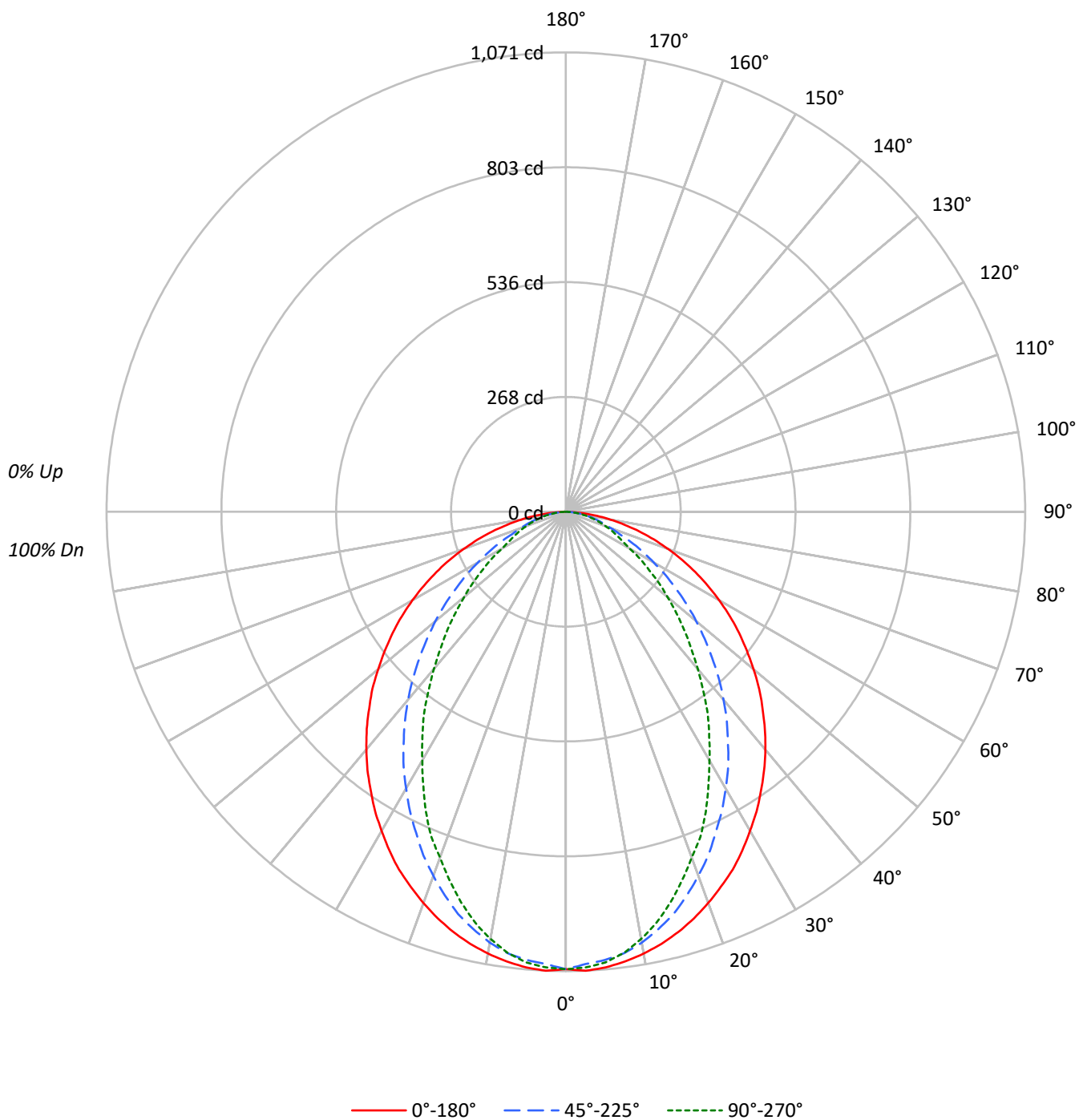
Lumens per Lamp: N/A
Luminaire Lumens: 2193.0 lumens
Efficiency: N/A
Efficacy: 82.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 2.21' x L: 2.21' x H: 0')
CIE Type: Direct

Input Watts (W): 26.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9963
Total Harmonic Distortion (THDi): 0.065
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	110	106	102	98	107	103	100	97	99	96	94		95	93	91		92	90	88	86
2	101	94	87	82	98	92	86	81	88	83	79		85	81	78		82	79	76	74
3	93	83	76	70	90	82	75	69	79	73	68		76	71	67		74	69	66	64
4	86	75	66	60	83	73	66	60	71	64	59		69	63	58		66	62	57	55
5	79	67	59	53	77	66	58	52	64	57	52		62	56	51		60	55	51	49
6	74	61	53	47	72	60	52	46	58	51	46		57	50	46		55	50	45	43
7	68	56	47	42	67	55	47	42	53	46	41		52	46	41		51	45	41	39
8	64	51	43	38	62	51	43	37	49	42	37		48	42	37		47	41	37	35
9	60	47	39	34	59	47	39	34	46	39	34		44	38	34		44	38	34	32
10	56	44	36	31	55	43	36	31	42	36	31		41	35	31		41	35	31	29

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2345	2345	2345
5°	2354	2315	2328
10°	2336	2277	2258
15°	2309	2210	2146
20°	2272	2113	2007
25°	2234	2004	1873
30°	2181	1891	1700
35°	2129	1769	1549
40°	2078	1642	1374
45°	2017	1500	1215
50°	1954	1357	1060
55°	1890	1202	910
60°	1816	1040	756
65°	1732	874	688
70°	1632	719	633
75°	1508	656	590
80°	1332	586	538
85°	1047	462	462

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2017 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.9	4.6
10°-20°	274.3	12.5
20°-30°	385.2	17.6
30°-40°	419.9	19.1
40°-50°	385.9	17.6
50°-60°	303.1	13.8
60°-70°	197.3	9.0
70°-80°	101.5	4.6
80°-90°	25.9	1.2
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°	759.4	34.6
0°-40°	1179.3	53.8
0°-60°	1868.3	85.2
0°-90°	2193.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2193.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1066	1066	1066	1066	1066	
5°	1066	1062	1049	1058	1055	101
15°	1014	1004	971	952	943	286
25°	921	890	826	786	772	423
35°	793	744	659	598	577	497
45°	648	584	482	414	391	501
55°	493	418	314	256	237	441
65°	333	255	168	135	132	330
75°	178	110	77	70	70	188
85°	42	21	18	18	18	50
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1066.3	1066.3	1066.3	1066.3	1066.3
2.5°	1071.1	1066.3	1055.6	1065.4	1063.5
5°	1066.3	1061.5	1048.9	1057.6	1054.7
7.5°	1057.6	1051.9	1038.4	1042.1	1037.3
10°	1046.0	1039.3	1020.0	1017.0	1011.4
12.5°	1031.6	1022.9	996.8	991.1	980.4
15°	1014.2	1003.5	970.8	952.4	942.8
17.5°	993.9	978.5	937.9	916.8	901.3
20°	970.8	951.4	903.2	879.2	857.8
22.5°	945.7	923.5	867.5	834.7	820.3
25°	920.6	889.7	826.0	786.5	771.9
27.5°	890.7	857.8	787.4	742.1	719.8
30°	858.9	822.2	744.9	695.8	669.7
32.5°	827.9	783.5	704.5	646.5	622.4
35°	793.3	744.0	659.1	598.3	577.1
37.5°	759.5	706.3	616.6	550.0	526.0
40°	723.8	665.9	572.2	503.7	478.7
42.5°	687.1	625.4	527.9	456.4	432.3
45°	648.5	583.8	482.5	413.9	390.8
47.5°	611.8	543.3	439.1	370.5	349.3
50°	571.3	502.8	396.6	330.0	309.8
52.5°	531.7	459.3	356.1	292.4	274.1
55°	493.0	417.8	313.6	255.8	237.4
57.5°	453.6	376.3	276.1	222.0	206.5
60°	413.0	335.8	236.4	187.2	171.8
62.5°	373.5	296.3	202.6	156.3	148.7
65°	332.9	254.7	167.9	135.1	132.2
67.5°	294.4	216.1	135.1	118.7	115.8
70°	253.8	178.5	111.9	102.3	98.4
72.5°	215.2	143.7	93.6	85.9	83.9
75°	177.5	110.0	77.2	70.4	69.5
77.5°	139.9	78.1	60.8	56.9	55.0
80°	105.2	56.0	46.3	42.5	42.5
82.5°	73.3	37.7	31.8	29.9	29.9
85°	41.5	21.2	18.3	18.3	18.3
87.5°	15.5	7.7	7.7	6.8	6.8
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	14.19	15.72	14.56	16.03	16.34	10.16	11.68	10.52	11.99	12.31
	3H	15.96	17.33	16.34	17.65	18.02	11.42	12.79	11.80	13.12	13.48
	4H	16.63	17.91	17.03	18.26	18.63	11.92	13.20	12.32	13.55	13.93
	6H	17.12	18.30	17.53	18.66	19.06	12.30	13.49	12.72	13.85	14.25
	8H	17.28	18.41	17.71	18.80	19.20	12.43	13.56	12.86	13.95	14.35
	12H	17.38	18.46	17.81	18.84	19.27	12.51	13.59	12.94	13.97	14.40
4H	2H	14.30	15.58	14.70	15.93	16.31	10.85	12.13	11.25	12.48	12.86
	3H	16.23	17.30	16.64	17.69	18.10	12.30	13.36	12.71	13.76	14.16
	4H	16.98	17.94	17.41	18.35	18.79	12.89	13.85	13.33	14.27	14.70
	6H	17.57	18.41	18.03	18.85	19.31	13.38	14.21	13.84	14.66	15.12
	8H	17.79	18.57	18.25	19.01	19.48	13.54	14.32	14.01	14.77	15.23
	12H	17.94	18.64	18.42	19.11	19.59	13.66	14.36	14.14	14.83	15.31
8H	4H	17.01	17.78	17.47	18.23	18.69	13.25	14.03	13.71	14.47	14.94
	6H	17.64	18.29	18.14	18.78	19.25	13.83	14.48	14.33	14.97	15.45
	8H	17.89	18.47	18.41	18.98	19.47	14.06	14.63	14.57	15.14	15.63
	12H	18.10	18.61	18.61	19.10	19.66	14.23	14.74	14.74	15.24	15.80
12H	4H	16.99	17.68	17.47	18.16	18.63	13.29	13.99	13.77	14.46	14.94
	6H	17.62	18.20	18.14	18.71	19.20	13.90	14.48	14.41	14.99	15.47
	8H	17.91	18.42	18.42	18.91	19.48	14.17	14.68	14.68	15.17	15.74

END OF REPORT