

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: P931023

Luminaire Tested: DFN2DS-SQ3F0-100DS935-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P931023
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P333812)
Test Lab: INNOVATION CENTER
Issue Date: 11/20/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: DFN2DS-SQ3F0-100DS935-FLL
Description: 3 foot, Square Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

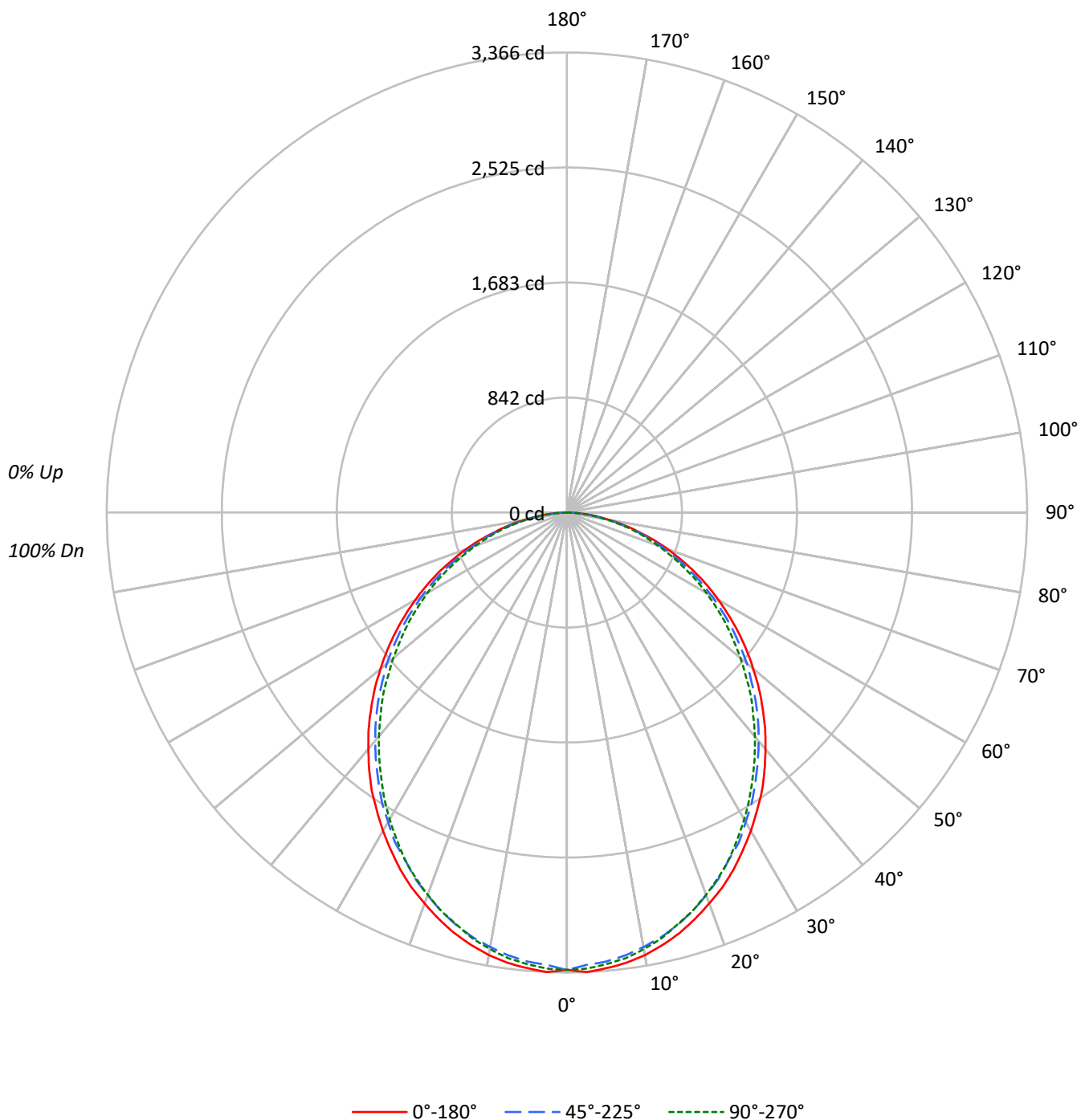
Lumens per Lamp: N/A
Luminaire Lumens: 8514.0 lumens
Efficiency: N/A
Efficacy: 81.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 3.06' x L: 3.06' x H: 0')
CIE Type: Direct

Input Watts (W): 104.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9781
Total Harmonic Distortion (THDi): 0.075
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	109	104	100	96	106	102	98	95	98	95	92		94	91	89		90	88	86	84
2	99	91	85	79	97	89	83	78	86	81	76		83	78	74		80	76	73	71
3	91	80	72	66	88	79	71	65	76	69	64		73	68	63		71	66	62	60
4	83	71	63	56	81	70	62	56	68	61	55		65	59	54		63	58	54	51
5	77	64	55	49	75	63	55	48	61	53	48		59	52	47		57	51	47	45
6	71	58	49	43	69	57	48	42	55	48	42		53	47	42		52	46	41	39
7	66	52	44	38	64	52	43	38	50	43	37		49	42	37		47	41	37	35
8	61	48	40	34	60	47	39	34	46	39	33		45	38	33		44	38	33	31
9	57	44	36	30	56	43	36	30	42	35	30		41	35	30		40	34	30	28
10	54	41	33	28	53	40	33	28	39	32	27		38	32	27		37	32	27	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3834	3834	3834
5°	3849	3794	3816
10°	3826	3755	3774
15°	3779	3706	3703
20°	3711	3633	3629
25°	3645	3543	3543
30°	3559	3461	3431
35°	3479	3362	3313
40°	3379	3263	3201
45°	3280	3165	3087
50°	3172	3063	2954
55°	3060	2944	2835
60°	2934	2802	2699
65°	2801	2661	2539
70°	2630	2490	2372
75°	2392	2293	2237
80°	2124	2059	1953
85°	1733	1651	1482

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3280 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	315.0	3.7
10°-20°	886.2	10.4
20°-30°	1302.3	15.3
30°-40°	1512.5	17.8
40°-50°	1510.7	17.7
50°-60°	1317.3	15.5
60°-70°	973.7	11.4
70°-80°	550.9	6.5
80°-90°	145.4	1.7
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°	2503.4	29.4
0°-40°	4016.0	47.2
0°-60°	6843.9	80.4
0°-90°	8514.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8514.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3346	3346	3346	3346	3346	
5°	3346	3334	3298	3324	3318	318
15°	3186	3166	3124	3137	3121	897
25°	2883	2857	2803	2809	2803	1327
35°	2487	2455	2404	2384	2368	1553
45°	2024	2002	1953	1918	1905	1562
55°	1532	1512	1474	1435	1419	1369
65°	1033	1014	982	952	936	1021
75°	540	534	518	499	505	577
85°	132	129	126	116	113	155
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3346.3	3346.3	3346.3	3346.3	3346.3
2.5°	3365.8	3349.7	3314.2	3346.3	3340.2
5°	3346.3	3333.7	3298.2	3323.8	3317.6
7.5°	3323.8	3304.6	3269.1	3295.1	3288.6
10°	3288.6	3266.1	3227.5	3253.1	3243.6
12.5°	3240.1	3221.0	3182.4	3198.5	3192.0
15°	3185.5	3166.4	3124.4	3137.4	3121.4
17.5°	3117.9	3098.8	3056.8	3072.9	3056.8
20°	3043.8	3024.7	2979.6	2989.2	2976.5
22.5°	2970.1	2941.1	2899.1	2899.1	2892.6
25°	2883.1	2857.4	2802.8	2808.9	2802.8
27.5°	2786.4	2763.9	2722.2	2712.7	2696.6
30°	2690.2	2664.2	2616.0	2606.5	2593.5
32.5°	2587.1	2568.0	2516.4	2496.9	2483.9
35°	2487.4	2455.3	2403.7	2384.3	2368.2
37.5°	2374.7	2345.6	2294.1	2271.6	2255.5
40°	2259.0	2233.0	2181.5	2152.8	2139.9
42.5°	2146.3	2120.3	2069.2	2036.7	2017.6
45°	2024.1	2001.6	1953.1	1917.9	1905.0
47.5°	1905.0	1882.5	1830.9	1795.3	1776.2
50°	1779.3	1763.3	1718.2	1673.1	1657.1
52.5°	1657.1	1634.6	1592.9	1557.5	1534.9
55°	1531.8	1512.4	1473.8	1435.2	1419.2
57.5°	1406.2	1390.1	1348.1	1309.6	1296.6
60°	1280.5	1267.9	1222.8	1187.3	1177.8
62.5°	1158.3	1135.8	1103.7	1071.6	1058.7
65°	1033.0	1013.6	981.5	952.4	936.5
67.5°	904.4	888.0	859.3	836.8	823.8
70°	785.2	772.2	743.2	720.7	708.0
72.5°	663.0	650.0	634.0	611.5	601.8
75°	540.4	534.3	517.9	498.8	505.2
77.5°	431.2	418.2	411.7	402.1	392.6
80°	321.9	318.5	312.0	302.5	296.0
82.5°	218.9	218.9	215.8	202.8	202.8
85°	131.8	128.7	125.6	115.8	112.7
87.5°	58.0	51.5	45.1	35.5	32.1
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	15.95	17.56	16.32	17.88	18.19	15.51	17.12	15.87	17.43	17.75
	3H	17.70	19.16	18.08	19.48	19.84	17.21	18.67	17.59	18.99	19.35
	4H	18.35	19.72	18.75	20.07	20.44	17.85	19.22	18.25	19.57	19.95
	6H	18.82	20.09	19.23	20.45	20.84	18.32	19.58	18.73	19.95	20.34
	8H	18.96	20.17	19.39	20.56	20.96	18.46	19.67	18.88	20.06	20.46
	12H	19.05	20.21	19.48	20.59	21.02	18.54	19.70	18.97	20.08	20.51
4H	2H	16.51	17.88	16.91	18.23	18.61	16.16	17.53	16.56	17.88	18.25
	3H	18.49	19.63	18.90	20.03	20.43	18.08	19.23	18.49	19.62	20.02
	4H	19.26	20.30	19.70	20.71	21.15	18.84	19.88	19.27	20.29	20.73
	6H	19.86	20.77	20.31	21.21	21.66	19.43	20.33	19.88	20.77	21.23
	8H	20.05	20.90	20.51	21.34	21.80	19.61	20.46	20.07	20.90	21.37
	12H	20.18	20.94	20.66	21.42	21.89	19.73	20.49	20.21	20.97	21.44
8H	4H	19.54	20.38	20.00	20.83	21.29	19.16	20.01	19.62	20.45	20.92
	6H	20.25	20.95	20.75	21.44	21.92	19.87	20.57	20.36	21.06	21.54
	8H	20.51	21.14	21.02	21.65	22.13	20.12	20.75	20.63	21.26	21.74
	12H	20.71	21.27	21.22	21.76	22.32	20.30	20.86	20.80	21.35	21.91
12H	4H	19.56	20.32	20.04	20.80	21.27	19.20	19.96	19.68	20.43	20.90
	6H	20.30	20.93	20.81	21.44	21.92	19.93	20.56	20.44	21.07	21.55
	8H	20.61	21.17	21.12	21.66	22.22	20.23	20.79	20.74	21.28	21.84