

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: P930613

Luminaire Tested: DFN2DS-PN3F0-080DS950-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930613
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-PN3F0-080DS950-FLL
Description: 3 foot, Pentagon Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

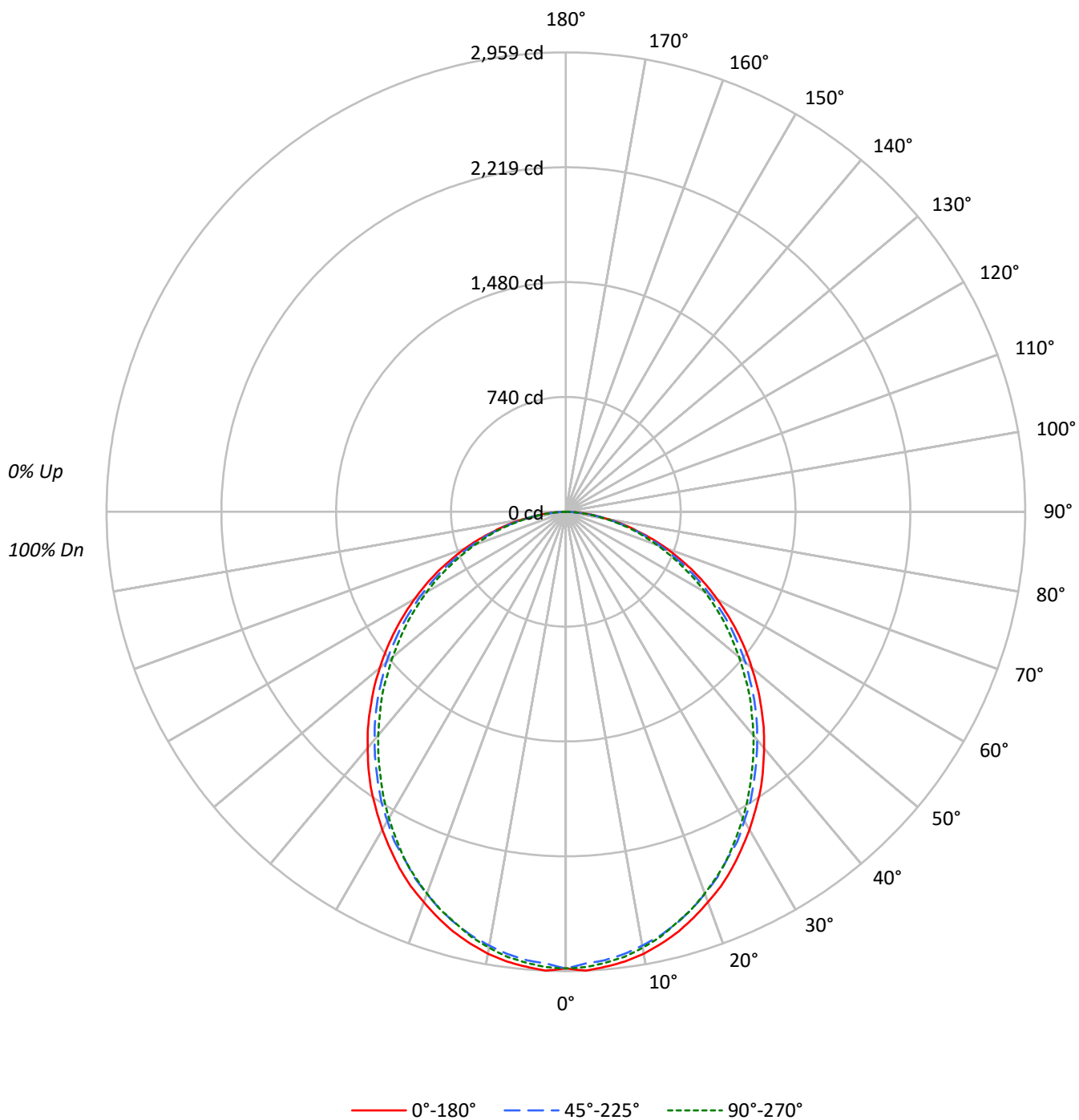
Lumens per Lamp: N/A
Luminaire Lumens: 7484.4 lumens
Efficiency: N/A
Efficacy: 89.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 3.11' x L: 2.96' x H: 0')
CIE Type: Direct

Input Watts (W): 84.1
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9967
Total Harmonic Distortion (THDi): 0.063
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
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	109	104	100	96	106	102	98	95	98	95	92		94	91	89		90
2	99	91	85	79	97	89	83	78	86	81	76		83	78	74		80
3	91	80	72	66	88	79	71	65	76	69	64		73	68	63		71
4	83	71	63	56	81	70	62	56	68	61	55		65	59	54		63
5	77	64	55	49	75	63	55	48	61	53	48		59	52	47		57
6	71	58	49	43	69	57	48	42	55	48	42		53	47	42		52
7	66	52	44	38	64	52	43	38	50	43	37		49	42	37		47
8	61	48	40	34	60	47	39	34	46	39	33		45	38	33		44
9	57	44	36	30	56	43	36	30	42	35	30		41	35	30		40
10	54	41	33	28	53	40	33	28	39	32	27		38	32	27		37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3439	3439	3439
5°	3452	3402	3422
10°	3432	3368	3385
15°	3389	3324	3321
20°	3329	3259	3255
25°	3269	3178	3178
30°	3192	3104	3077
35°	3120	3015	2971
40°	3030	2926	2870
45°	2942	2838	2768
50°	2845	2747	2649
55°	2744	2641	2542
60°	2632	2513	2420
65°	2512	2387	2277
70°	2359	2233	2127
75°	2146	2056	2006
80°	1905	1847	1752
85°	1555	1482	1328

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2942 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	276.9	3.7
10°-20°	779.0	10.4
20°-30°	1144.8	15.3
30°-40°	1329.6	17.8
40°-50°	1328.0	17.7
50°-60°	1158.0	15.5
60°-70°	856.0	11.4
70°-80°	484.3	6.5
80°-90°	127.8	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°	2200.7	29.4
0°-40°	3530.3	47.2
0°-60°	6016.3	80.4
0°-90°	7484.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7484.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2942	2942	2942	2942	2942	
5°	2942	2930	2899	2922	2916	279
15°	2800	2784	2746	2758	2744	789
25°	2534	2512	2464	2469	2464	1166
35°	2186	2158	2113	2096	2082	1365
45°	1779	1760	1717	1686	1675	1373
55°	1346	1329	1296	1262	1248	1204
65°	908	891	863	837	823	898
75°	475	470	455	438	444	507
85°	116	113	110	102	99	136
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2941.6	2941.6	2941.6	2941.6	2941.6
2.5°	2958.7	2944.6	2913.4	2941.6	2936.2
5°	2941.6	2930.5	2899.4	2921.8	2916.5
7.5°	2921.8	2905.0	2873.8	2896.6	2890.9
10°	2890.9	2871.1	2837.2	2859.7	2851.3
12.5°	2848.3	2831.5	2797.6	2811.7	2806.0
15°	2800.3	2783.5	2746.5	2758.0	2743.9
17.5°	2740.9	2724.1	2687.1	2701.3	2687.1
20°	2675.8	2658.9	2619.4	2627.8	2616.6
22.5°	2610.9	2585.4	2548.5	2548.5	2542.8
25°	2534.4	2511.9	2463.9	2469.3	2463.9
27.5°	2449.4	2429.7	2393.0	2384.6	2370.5
30°	2364.9	2342.0	2299.8	2291.3	2279.9
32.5°	2274.2	2257.4	2212.1	2195.0	2183.6
35°	2186.5	2158.4	2113.0	2095.9	2081.8
37.5°	2087.5	2062.0	2016.7	1996.9	1982.8
40°	1985.8	1963.0	1917.7	1892.5	1881.0
42.5°	1886.8	1863.9	1818.9	1790.4	1773.7
45°	1779.3	1759.5	1716.9	1686.0	1674.6
47.5°	1674.6	1654.8	1609.4	1578.2	1561.4
50°	1564.2	1550.1	1510.4	1470.8	1456.7
52.5°	1456.7	1436.9	1400.3	1369.1	1349.3
55°	1346.5	1329.4	1295.6	1261.7	1247.5
57.5°	1236.2	1222.1	1185.1	1151.2	1139.8
60°	1125.7	1114.6	1074.9	1043.8	1035.3
62.5°	1018.2	998.5	970.2	942.1	930.6
65°	908.1	891.0	862.8	837.3	823.2
67.5°	794.9	780.6	755.3	735.6	724.2
70°	690.2	678.8	653.4	633.5	622.4
72.5°	582.8	571.4	557.3	537.5	529.1
75°	475.1	469.7	455.3	438.5	444.2
77.5°	379.0	367.6	361.9	353.5	345.1
80°	283.0	280.0	274.3	265.9	260.2
82.5°	192.4	192.4	189.7	178.2	178.2
85°	115.9	113.1	110.5	101.8	99.0
87.5°	51.0	45.4	39.6	31.2	28.3
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	15.57	17.18	15.94	17.50	17.81	15.13	16.74	15.49	17.05	17.37
	3H	17.32	18.78	17.70	19.10	19.47	16.83	18.29	17.21	18.61	18.97
	4H	17.97	19.34	18.37	19.69	20.06	17.48	18.84	17.87	19.19	19.57
	6H	18.44	19.71	18.85	20.07	20.46	17.94	19.21	18.35	19.57	19.96
	8H	18.58	19.79	19.01	20.18	20.58	18.08	19.29	18.50	19.68	20.08
	12H	18.67	19.83	19.10	20.21	20.64	18.16	19.32	18.59	19.70	20.13
4H	2H	16.13	17.50	16.53	17.85	18.23	15.78	17.15	16.18	17.50	17.87
	3H	18.11	19.26	18.52	19.65	20.05	17.70	18.85	18.11	19.25	19.65
	4H	18.89	19.92	19.32	20.34	20.77	18.46	19.50	18.89	19.91	20.35
	6H	19.48	20.39	19.94	20.83	21.28	19.05	19.95	19.50	20.40	20.85
	8H	19.67	20.52	20.13	20.96	21.43	19.23	20.08	19.69	20.52	20.99
	12H	19.80	20.56	20.28	21.04	21.51	19.35	20.11	19.83	20.59	21.06
8H	4H	19.16	20.01	19.62	20.45	20.91	18.79	19.63	19.25	20.07	20.54
	6H	19.87	20.58	20.37	21.06	21.54	19.49	20.20	19.99	20.68	21.16
	8H	20.13	20.76	20.64	21.27	21.76	19.74	20.37	20.25	20.88	21.36
	12H	20.33	20.89	20.84	21.38	21.94	19.92	20.48	20.43	20.97	21.53
12H	4H	19.19	19.95	19.67	20.42	20.89	18.82	19.58	19.30	20.06	20.53
	6H	19.92	20.55	20.43	21.06	21.54	19.55	20.18	20.06	20.69	21.18
	8H	20.23	20.79	20.74	21.28	21.84	19.85	20.41	20.36	20.90	21.46