

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: P931424

Luminaire Tested: DFN2DS-TR3F0-080DS950-RLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P931424
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-TR3F0-080DS950-RLL
Description: 3 foot, Triangle Define Geo, with Direct 1in Regressed Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

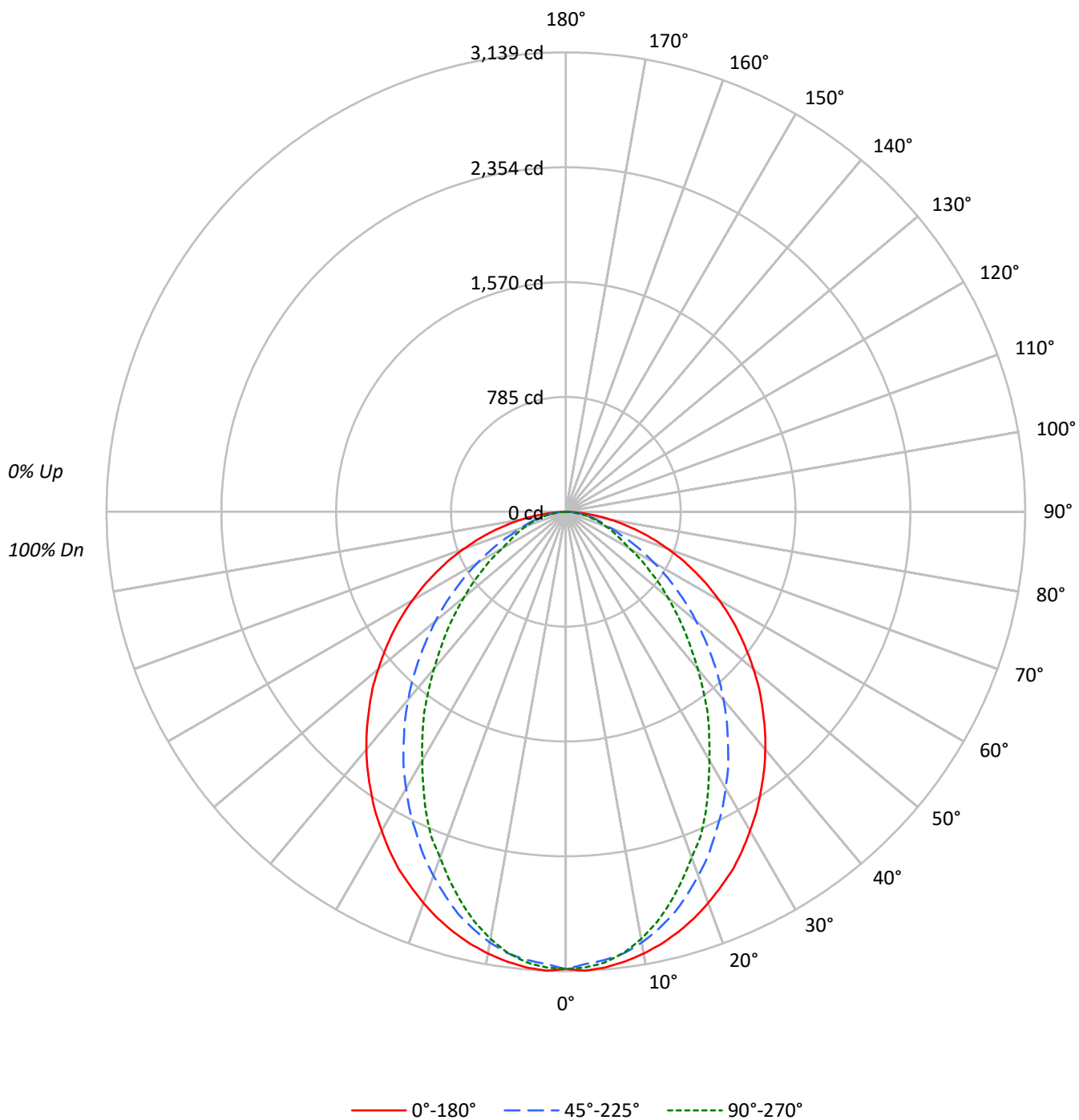
Lumens per Lamp: N/A
Luminaire Lumens: 6426.0 lumens
Efficiency: N/A
Efficacy: 75.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 3.16' x L: 2.74' x H: 0')
CIE Type: Direct

Input Watts (W): 85.1
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9968
Total Harmonic Distortion (THDi): 0.064
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	110	106	102	98	107	103	100	97	99	96	94		95	93	91		92
2	101	94	87	82	98	92	86	81	88	83	79		85	81	78		82
3	93	83	76	70	90	82	75	69	79	73	68		76	71	67		74
4	86	75	66	60	83	73	66	60	71	64	59		69	63	58		66
5	79	67	59	53	77	66	58	52	64	57	52		62	56	51		60
6	74	61	53	47	72	60	52	46	58	51	46		57	50	46		55
7	68	56	47	42	67	55	47	42	53	46	41		52	46	41		51
8	64	51	43	38	62	51	43	37	49	42	37		48	42	37		47
9	60	47	39	34	59	47	39	34	46	39	34		44	38	34		44
10	56	44	36	31	55	43	36	31	42	36	31		41	35	31		41

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3893	3893	3893
5°	3908	3845	3866
10°	3878	3782	3750
15°	3834	3670	3564
20°	3772	3510	3333
25°	3709	3328	3110
30°	3621	3141	2824
35°	3536	2938	2572
40°	3450	2727	2281
45°	3349	2492	2018
50°	3245	2253	1760
55°	3139	1996	1511
60°	3016	1726	1255
65°	2877	1451	1142
70°	2710	1195	1050
75°	2505	1089	981
80°	2211	973	893
85°	1737	768	768

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3349 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	292.8	4.6
10°-20°	803.9	12.5
20°-30°	1128.6	17.6
30°-40°	1230.3	19.1
40°-50°	1130.8	17.6
50°-60°	888.0	13.8
60°-70°	578.0	9.0
70°-80°	297.5	4.6
80°-90°	76.0	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°	2225.4	34.6
0°-40°	3455.7	53.8
0°-60°	5474.5	85.2
0°-90°	6426.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6426.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3124	3124	3124	3124	3124	
5°	3124	3110	3074	3099	3091	296
15°	2972	2941	2845	2791	2763	837
25°	2698	2607	2420	2305	2262	1241
35°	2324	2180	1931	1753	1691	1455
45°	1900	1711	1414	1213	1145	1467
55°	1445	1224	919	749	696	1291
65°	976	746	492	396	387	967
75°	520	322	226	206	204	550
85°	122	62	54	54	54	146
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3124.5	3124.5	3124.5	3124.5	3124.5
2.5°	3138.6	3124.5	3093.4	3121.8	3116.1
5°	3124.5	3110.5	3073.5	3099.0	3090.6
7.5°	3099.0	3082.2	3042.6	3053.8	3039.6
10°	3065.1	3045.4	2988.9	2980.2	2963.4
12.5°	3022.9	2997.4	2920.8	2904.0	2872.8
15°	2971.8	2940.7	2844.6	2791.0	2762.7
17.5°	2912.4	2867.1	2748.3	2686.3	2640.9
20°	2844.6	2787.9	2646.7	2576.2	2513.7
22.5°	2771.1	2706.0	2542.0	2445.9	2403.6
25°	2697.6	2607.1	2420.4	2304.7	2262.0
27.5°	2610.0	2513.7	2307.3	2174.4	2109.3
30°	2516.7	2409.0	2182.9	2038.8	1962.3
32.5°	2426.1	2296.0	2064.4	1894.5	1823.8
35°	2324.4	2180.1	1931.4	1753.3	1690.8
37.5°	2225.4	2069.7	1806.9	1611.6	1541.1
40°	2120.8	1951.2	1676.7	1476.0	1402.5
42.5°	2013.3	1832.4	1546.8	1337.5	1266.9
45°	1900.2	1710.6	1413.9	1212.9	1145.2
47.5°	1792.9	1592.1	1286.7	1085.7	1023.6
50°	1674.0	1473.3	1162.3	966.9	907.8
52.5°	1557.9	1345.8	1043.4	856.8	803.2
55°	1444.8	1224.3	918.9	749.4	695.7
57.5°	1329.0	1102.8	808.8	650.4	605.1
60°	1210.2	984.0	692.7	548.7	503.4
62.5°	1094.4	868.2	593.7	458.1	435.6
65°	975.6	746.4	492.0	396.0	387.3
67.5°	862.5	633.3	396.0	347.7	339.3
70°	743.7	523.2	327.9	299.7	288.3
72.5°	630.6	421.2	274.2	251.7	246.0
75°	520.2	322.2	226.2	206.4	203.7
77.5°	410.1	228.9	178.2	166.8	161.1
80°	308.1	164.1	135.6	124.5	124.5
82.5°	214.8	110.4	93.3	87.6	87.6
85°	121.5	62.1	53.7	53.7	53.7
87.5°	45.3	22.5	22.5	19.8	19.8
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	15.96	17.48	16.32	17.79	18.11	11.92	13.44	12.28	13.75	14.07
	3H	17.72	19.09	18.10	19.42	19.78	13.18	14.55	13.56	14.88	15.24
	4H	18.39	19.67	18.79	20.02	20.40	13.68	14.97	14.08	15.31	15.69
	6H	18.88	20.06	19.29	20.43	20.82	14.07	15.25	14.48	15.62	16.01
	8H	19.04	20.17	19.47	20.56	20.96	14.19	15.32	14.62	15.71	16.11
	12H	19.15	20.22	19.58	20.61	21.04	14.27	15.35	14.70	15.73	16.16
4H	2H	16.06	17.34	16.46	17.69	18.07	12.61	13.89	13.01	14.24	14.62
	3H	17.99	19.06	18.41	19.46	19.86	14.06	15.12	14.47	15.52	15.92
	4H	18.74	19.70	19.18	20.12	20.55	14.66	15.61	15.09	16.03	16.47
	6H	19.34	20.17	19.79	20.61	21.07	15.14	15.98	15.60	16.42	16.88
	8H	19.55	20.33	20.01	20.77	21.24	15.31	16.08	15.77	16.53	16.99
	12H	19.70	20.40	20.19	20.88	21.35	15.42	16.12	15.91	16.60	17.07
8H	4H	18.77	19.55	19.23	19.99	20.46	15.01	15.79	15.47	16.23	16.70
	6H	19.41	20.05	19.90	20.54	21.02	15.60	16.24	16.09	16.73	17.21
	8H	19.66	20.23	20.17	20.74	21.23	15.82	16.39	16.33	16.90	17.39
	12H	19.86	20.37	20.37	20.86	21.43	16.00	16.51	16.51	17.00	17.56
12H	4H	18.75	19.45	19.23	19.93	20.40	15.05	15.75	15.54	16.23	16.70
	6H	19.39	19.96	19.90	20.47	20.96	15.66	16.24	16.17	16.75	17.24
	8H	19.67	20.18	20.18	20.67	21.24	15.93	16.44	16.44	16.93	17.50