

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: P931434

Luminaire Tested: DFN2DS-TR3F0-090DS927-RLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P931434
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-TR3F0-090DS927-RLL
Description: 3 foot, Triangle Define Geo, with Direct 1in Regressed Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

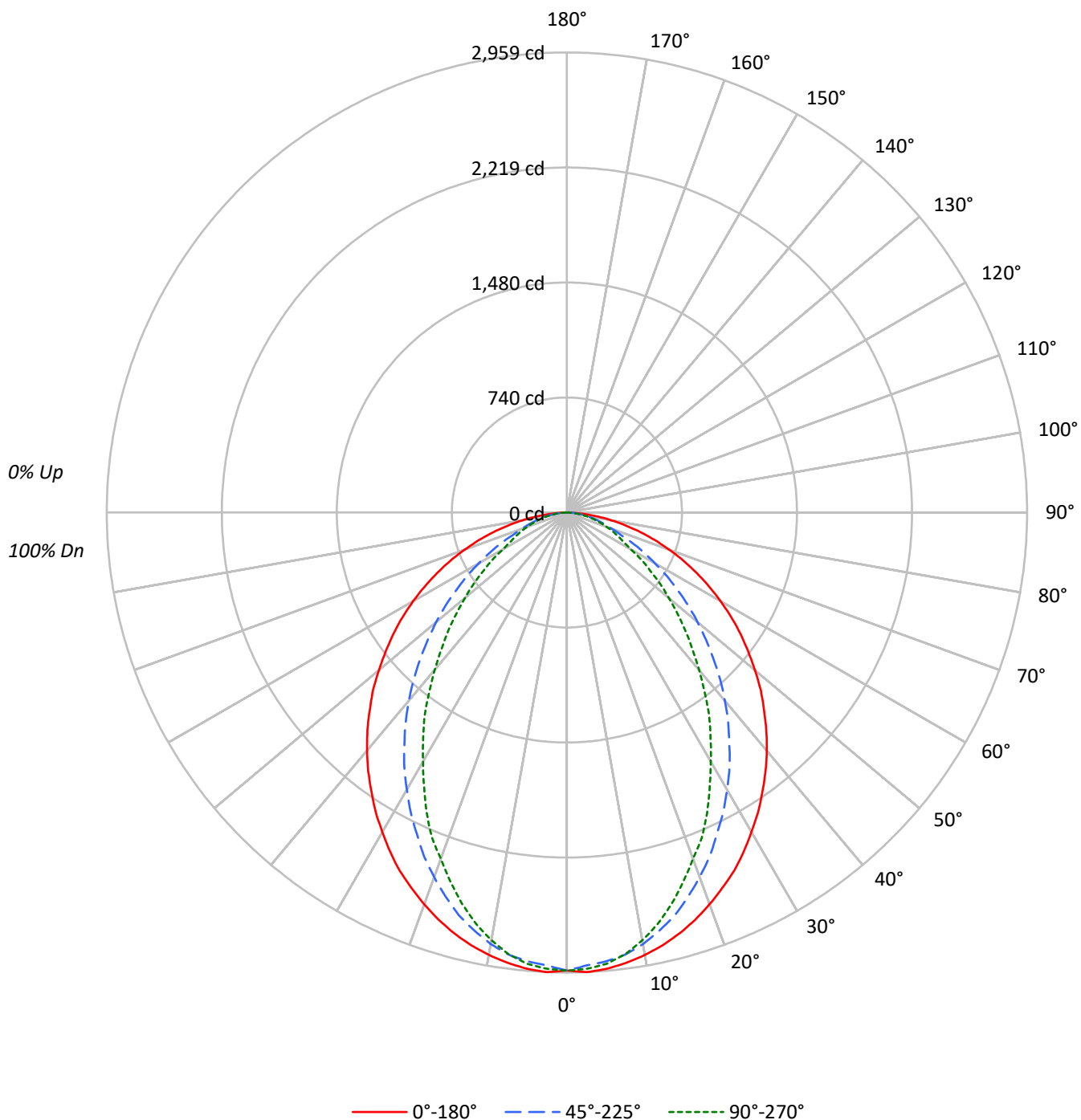
Lumens per Lamp: N/A
Luminaire Lumens: 6058.8 lumens
Efficiency: N/A
Efficacy: 61.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 3.16' x L: 2.74' x H: 0')
CIE Type: Direct

Input Watts (W): 99.1
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9951
Total Harmonic Distortion (THDi): 0.07
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°	3671	3671	3671
5°	3685	3625	3645
10°	3657	3566	3535
15°	3615	3460	3360
20°	3557	3309	3143
25°	3497	3138	2932
30°	3414	2961	2662
35°	3334	2770	2425
40°	3253	2572	2151
45°	3157	2349	1903
50°	3060	2124	1659
55°	2959	1882	1425
60°	2844	1628	1183
65°	2712	1368	1077
70°	2555	1127	990
75°	2362	1027	925
80°	2085	917	842
85°	1637	723	723

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3157 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	276.1	4.6
10°-20°	758.0	12.5
20°-30°	1064.1	17.6
30°-40°	1160.0	19.1
40°-50°	1066.2	17.6
50°-60°	837.3	13.8
60°-70°	545.0	9.0
70°-80°	280.5	4.6
80°-90°	71.6	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°	2098.2	34.6
0°-40°	3258.2	53.8
0°-60°	5161.6	85.2
0°-90°	6058.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6058.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2946	2946	2946	2946	2946	
5°	2946	2933	2898	2922	2914	279
15°	2802	2773	2682	2631	2605	790
25°	2544	2458	2282	2173	2133	1170
35°	2192	2056	1821	1653	1594	1372
45°	1792	1613	1333	1144	1080	1384
55°	1362	1154	866	707	656	1217
65°	920	704	464	373	365	912
75°	490	304	213	195	192	519
85°	114	58	51	51	51	137
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2946.0	2946.0	2946.0	2946.0	2946.0
2.5°	2959.3	2946.0	2916.5	2943.5	2938.1
5°	2946.0	2932.7	2897.9	2921.9	2914.0
7.5°	2921.9	2906.1	2868.8	2879.2	2865.9
10°	2890.0	2871.3	2818.2	2809.9	2794.1
12.5°	2850.1	2826.1	2753.9	2738.1	2708.6
15°	2802.0	2772.6	2682.1	2631.4	2604.9
17.5°	2746.0	2703.3	2591.3	2532.7	2490.0
20°	2682.1	2628.6	2495.4	2428.9	2370.1
22.5°	2612.8	2551.4	2396.7	2306.1	2266.3
25°	2543.5	2458.1	2282.1	2172.9	2132.8
27.5°	2460.9	2370.1	2175.5	2050.2	1988.8
30°	2372.9	2271.4	2058.1	1922.3	1850.2
32.5°	2287.5	2164.7	1946.3	1786.3	1719.5
35°	2191.6	2055.6	1821.0	1653.1	1594.2
37.5°	2098.2	1951.5	1703.7	1519.5	1453.1
40°	1999.6	1839.7	1580.9	1391.7	1322.4
42.5°	1898.3	1727.7	1458.4	1261.0	1194.5
45°	1791.7	1612.9	1333.1	1143.6	1079.7
47.5°	1690.4	1501.2	1213.2	1023.7	965.1
50°	1578.4	1389.1	1095.8	911.7	855.9
52.5°	1468.9	1268.9	983.8	807.8	757.2
55°	1362.2	1154.3	866.4	706.6	655.9
57.5°	1253.1	1039.8	762.6	613.2	570.6
60°	1141.0	927.7	653.2	517.3	474.6
62.5°	1031.9	818.6	559.8	432.0	410.7
65°	919.8	703.8	463.9	373.3	365.2
67.5°	813.2	597.1	373.3	327.8	319.9
70°	701.2	493.3	309.2	282.6	271.8
72.5°	594.6	397.1	258.5	237.3	232.0
75°	490.5	303.8	213.3	194.6	192.1
77.5°	386.7	215.8	168.0	157.3	151.9
80°	290.5	154.8	127.8	117.4	117.4
82.5°	202.5	104.1	88.0	82.6	82.6
85°	114.5	58.5	50.6	50.6	50.6
87.5°	42.7	21.2	21.2	18.7	18.7
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	15.75	17.27	16.12	17.59	17.90	11.71	13.24	12.08	13.55	13.86
	3H	17.52	18.88	17.90	19.21	19.57	12.98	14.34	13.36	14.67	15.03
	4H	18.18	19.47	18.58	19.81	20.19	13.48	14.76	13.88	15.11	15.49
	6H	18.67	19.86	19.09	20.22	20.62	13.86	15.04	14.27	15.41	15.80
	8H	18.84	19.97	19.27	20.35	20.76	13.99	15.11	14.41	15.50	15.90
	12H	18.94	20.02	19.37	20.40	20.83	14.07	15.15	14.50	15.53	15.96
4H	2H	15.86	17.14	16.26	17.49	17.86	12.41	13.69	12.81	14.04	14.42
	3H	17.79	18.85	18.20	19.25	19.65	13.85	14.91	14.26	15.31	15.72
	4H	18.54	19.50	18.97	19.91	20.35	14.45	15.41	14.88	15.82	16.26
	6H	19.13	19.96	19.59	20.41	20.87	14.94	15.77	15.40	16.21	16.67
	8H	19.35	20.12	19.81	20.57	21.03	15.10	15.88	15.57	16.32	16.79
	12H	19.50	20.19	19.98	20.67	21.14	15.22	15.91	15.70	16.39	16.86
8H	4H	18.56	19.34	19.03	19.79	20.25	14.81	15.58	15.27	16.03	16.49
	6H	19.20	19.84	19.70	20.34	20.81	15.39	16.03	15.89	16.53	17.00
	8H	19.45	20.03	19.97	20.54	21.03	15.61	16.19	16.13	16.70	17.19
	12H	19.66	20.17	20.17	20.66	21.22	15.79	16.30	16.30	16.79	17.36
12H	4H	18.55	19.24	19.03	19.72	20.19	14.85	15.54	15.33	16.02	16.49
	6H	19.18	19.76	19.70	20.27	20.76	15.46	16.03	15.97	16.54	17.03
	8H	19.47	19.98	19.98	20.47	21.03	15.73	16.24	16.24	16.73	17.30