

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: P931412

Luminaire Tested: DFN2DS-TR3F0-080DS840-RLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P931412
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-TR3F0-080DS840-RLL
Description: 3 foot, Triangle Define Geo, with Direct 1in Regressed Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

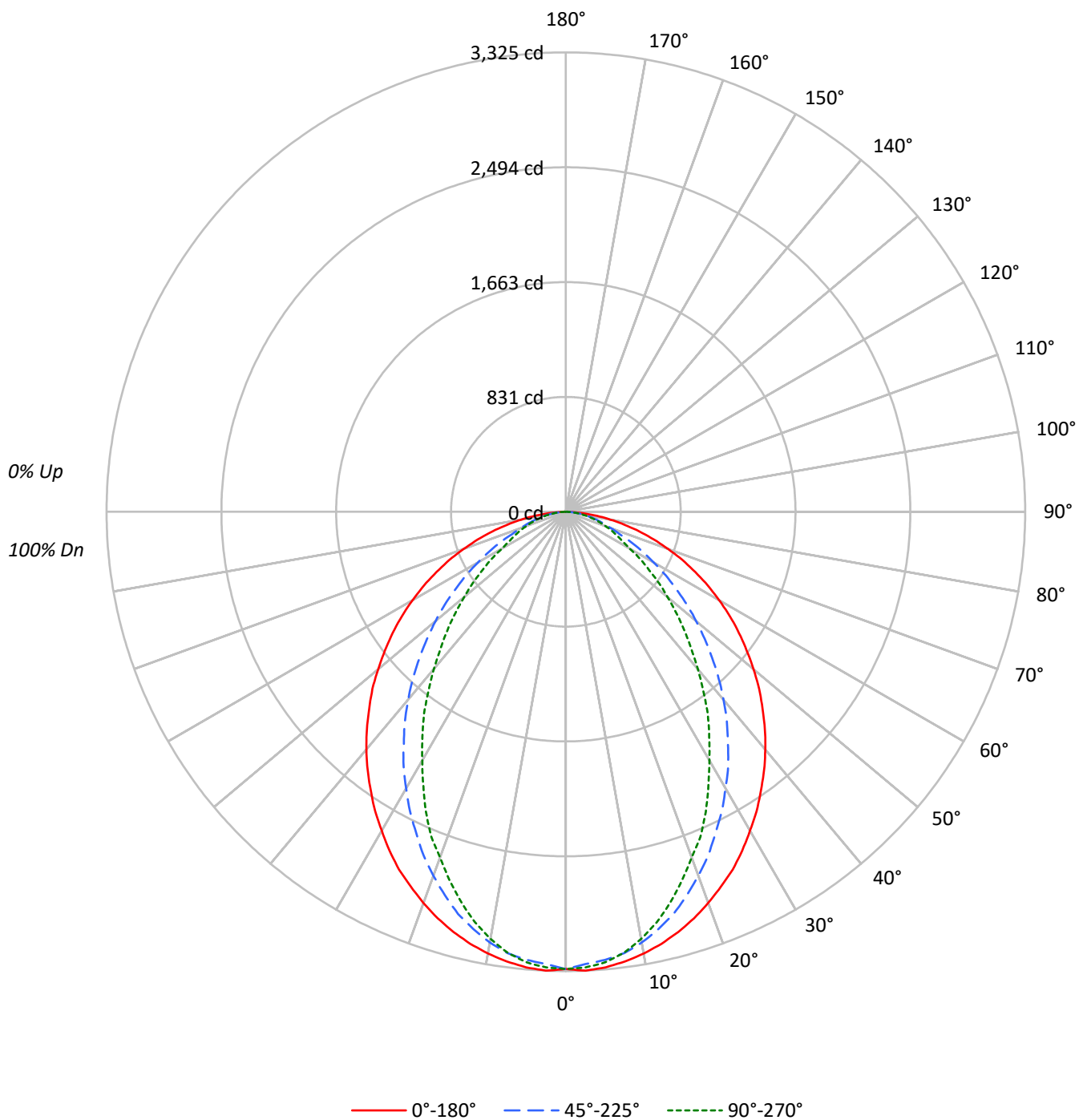
Lumens per Lamp: N/A
Luminaire Lumens: 6806.8 lumens
Efficiency: N/A
Efficacy: 80.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 3.16' x L: 2.74' x H: 0')
CIE Type: Direct

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°	4124	4124	4124
5°	4140	4072	4095
10°	4108	4006	3972
15°	4061	3887	3775
20°	3996	3718	3531
25°	3929	3525	3294
30°	3836	3327	2991
35°	3746	3112	2724
40°	3654	2889	2417
45°	3547	2639	2138
50°	3438	2387	1864
55°	3325	2115	1601
60°	3195	1829	1329
65°	3047	1536	1209
70°	2870	1265	1113
75°	2653	1154	1039
80°	2342	1030	946
85°	1840	814	814

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3547 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	310.2	4.6
10°-20°	851.5	12.5
20°-30°	1195.5	17.6
30°-40°	1303.2	19.1
40°-50°	1197.8	17.6
50°-60°	940.7	13.8
60°-70°	612.3	9.0
70°-80°	315.2	4.6
80°-90°	80.5	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°	2357.2	34.6
0°-40°	3660.4	53.8
0°-60°	5798.9	85.2
0°-90°	6806.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6806.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3310	3310	3310	3310	3310	
5°	3310	3295	3256	3283	3274	314
15°	3148	3115	3013	2956	2926	887
25°	2858	2762	2564	2441	2396	1314
35°	2462	2309	2046	1857	1791	1541
45°	2013	1812	1498	1285	1213	1554
55°	1530	1297	973	794	737	1368
65°	1033	791	521	420	410	1025
75°	551	341	240	219	216	583
85°	129	66	57	57	57	154
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3309.7	3309.7	3309.7	3309.7	3309.7
2.5°	3324.6	3309.7	3276.7	3306.8	3300.8
5°	3309.7	3294.8	3255.7	3282.7	3273.8
7.5°	3282.7	3264.9	3222.9	3234.7	3219.7
10°	3246.7	3225.8	3166.1	3156.9	3139.0
12.5°	3202.0	3175.0	3093.9	3076.1	3043.0
15°	3147.9	3114.9	3013.2	2956.4	2926.4
17.5°	3085.0	3037.0	2911.2	2845.4	2797.4
20°	3013.2	2953.2	2803.5	2728.8	2662.7
22.5°	2935.3	2866.4	2692.6	2590.9	2546.0
25°	2857.5	2761.6	2563.9	2441.2	2396.1
27.5°	2764.7	2662.7	2444.0	2303.3	2234.3
30°	2665.9	2551.7	2312.2	2159.7	2078.6
32.5°	2569.9	2432.0	2186.7	2006.8	1931.8
35°	2462.2	2309.3	2045.8	1857.2	1791.0
37.5°	2357.3	2192.4	1914.0	1707.1	1632.4
40°	2246.4	2066.9	1776.1	1563.5	1485.6
42.5°	2132.6	1941.0	1638.4	1416.7	1341.9
45°	2012.8	1812.0	1497.7	1284.8	1213.0
47.5°	1899.1	1686.5	1363.0	1150.0	1084.3
50°	1773.2	1560.7	1231.1	1024.2	961.6
52.5°	1650.2	1425.5	1105.2	907.6	850.7
55°	1530.4	1296.9	973.4	793.8	736.9
57.5°	1407.8	1168.2	856.8	689.0	640.9
60°	1281.9	1042.3	733.7	581.2	533.2
62.5°	1159.3	919.6	628.9	485.3	461.5
65°	1033.4	790.6	521.1	419.5	410.2
67.5°	913.6	670.9	419.5	368.3	359.5
70°	787.8	554.3	347.3	317.4	305.4
72.5°	668.0	446.1	290.5	266.7	260.6
75°	551.1	341.3	239.6	218.6	215.8
77.5°	434.4	242.4	188.8	176.7	170.7
80°	326.3	173.9	143.6	131.8	131.8
82.5°	227.5	116.9	98.8	92.8	92.8
85°	128.7	65.8	56.9	56.9	56.9
87.5°	47.9	23.8	23.8	21.0	21.0
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	16.16	17.68	16.52	17.99	18.31	12.12	13.64	12.48	13.95	14.27
	3H	17.92	19.29	18.30	19.62	19.98	13.38	14.75	13.76	15.08	15.44
	4H	18.59	19.87	18.99	20.22	20.60	13.89	15.17	14.28	15.51	15.89
	6H	19.08	20.26	19.49	20.63	21.02	14.27	15.45	14.68	15.82	16.21
	8H	19.24	20.37	19.67	20.76	21.16	14.39	15.52	14.82	15.91	16.31
	12H	19.35	20.42	19.78	20.81	21.24	14.47	15.55	14.90	15.93	16.36
4H	2H	16.26	17.54	16.66	17.89	18.27	12.81	14.09	13.21	14.44	14.82
	3H	18.19	19.26	18.61	19.66	20.06	14.26	15.32	14.67	15.72	16.12
	4H	18.94	19.90	19.38	20.32	20.76	14.86	15.81	15.29	16.23	16.67
	6H	19.54	20.37	19.99	20.81	21.27	15.34	16.18	15.80	16.62	17.08
	8H	19.75	20.53	20.21	20.97	21.44	15.51	16.28	15.97	16.73	17.19
	12H	19.90	20.60	20.39	21.08	21.55	15.62	16.32	16.11	16.80	17.27
8H	4H	18.97	19.75	19.43	20.19	20.66	15.21	15.99	15.67	16.43	16.90
	6H	19.61	20.25	20.10	20.74	21.22	15.80	16.44	16.29	16.93	17.41
	8H	19.86	20.43	20.37	20.94	21.43	16.02	16.59	16.53	17.10	17.59
	12H	20.06	20.57	20.57	21.06	21.63	16.20	16.71	16.71	17.20	17.76
12H	4H	18.95	19.65	19.44	20.13	20.60	15.25	15.95	15.74	16.43	16.90
	6H	19.59	20.16	20.10	20.67	21.16	15.86	16.44	16.37	16.95	17.44
	8H	19.87	20.38	20.38	20.87	21.44	16.13	16.64	16.64	17.13	17.70