

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P242694

Luminaire Tested: **S124DR-S795D940-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242694
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-16)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DR-S795D940-X4F0-XX-UDD-D-W
Description: DEFINE 4 DIRECT RECESSED WITH SATIN DROP DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2714.9 lumens
Efficiency: N/A
Efficacy: 102.8 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 3.88' x H: 0.08')
CIE Type: Direct

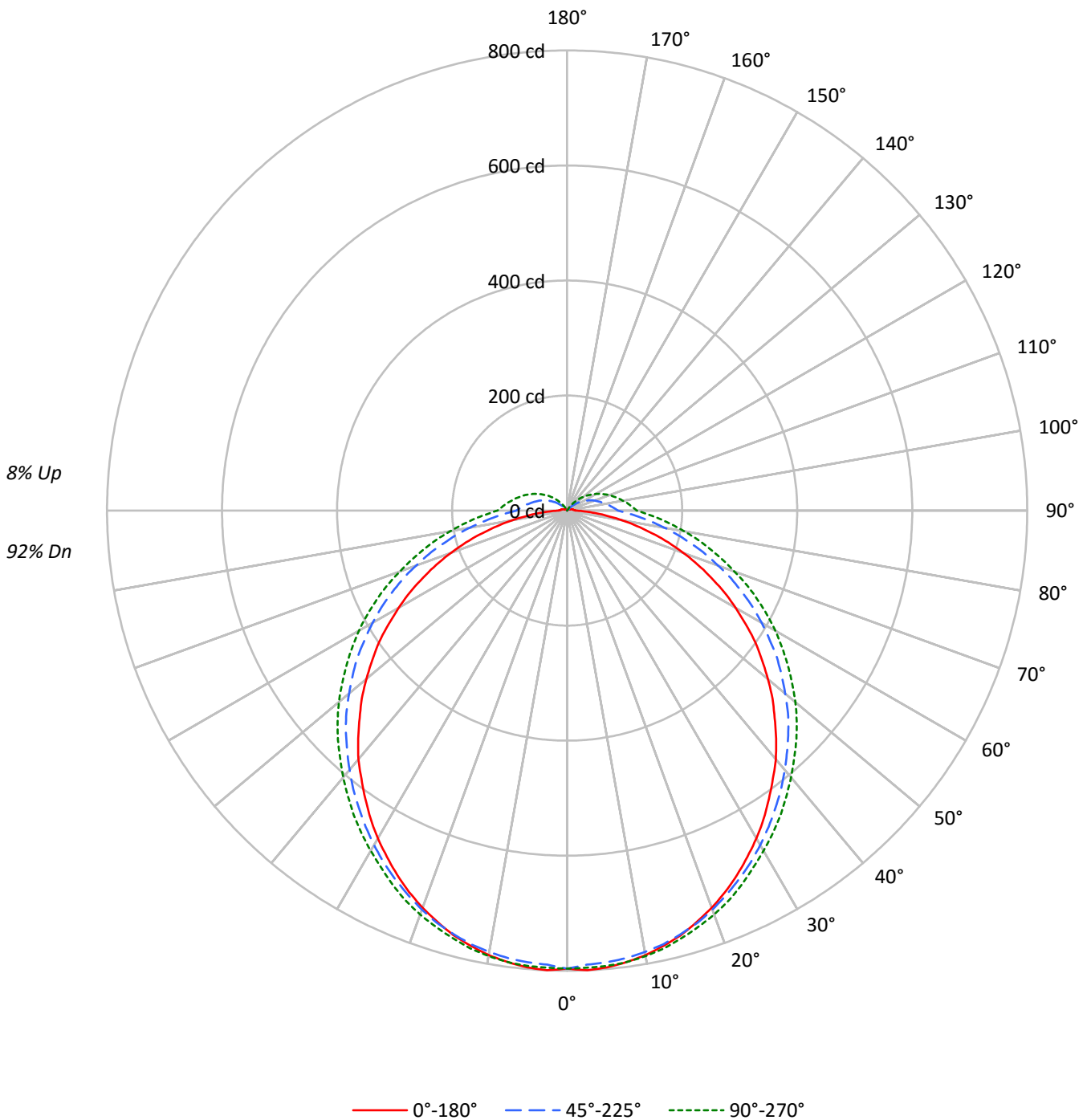
Input Watts (W): 26.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	117	117	117	117	114	114	114	114	107	107	107	101	101	101	95	95	95	92
1	105	100	95	91	102	97	93	89	91	88	84	86	83	80	81	79	77	74
2	95	86	79	73	92	84	77	71	79	73	68	74	70	66	70	67	63	60
3	87	75	67	60	83	73	65	59	69	62	57	65	60	55	62	57	53	50
4	79	66	57	50	76	65	56	49	61	54	48	58	52	47	55	49	45	43
5	73	59	50	43	70	58	49	42	55	47	41	52	45	40	49	44	39	37
6	67	53	44	37	64	52	43	37	49	42	36	47	40	35	45	39	34	32
7	62	48	39	33	60	47	38	32	45	37	32	43	36	31	41	35	30	28
8	58	44	35	29	56	43	35	29	41	33	28	39	32	28	37	31	27	25
9	54	40	32	26	52	39	31	26	38	30	25	36	29	25	34	29	24	22
10	50	37	29	24	49	36	29	23	35	28	23	33	27	23	32	26	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7078	7078	7078
5°	7100	6911	6928
10°	7056	6791	6780
15°	6992	6653	6609
20°	6897	6502	6444
25°	6789	6333	6261
30°	6672	6167	6075
35°	6539	5995	5912
40°	6434	5832	5741
45°	6277	5680	5593
50°	6144	5507	5437
55°	6007	5342	5254
60°	5793	5133	5086
65°	5557	4908	4880
70°	5274	4650	4641
75°	4877	4366	4420
80°	4435	4087	4197
85°	3872	3823	4044



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.4	2.8
10°-20°	216.2	8.0
20°-30°	326.9	12.0
30°-40°	395.4	14.6
40°-50°	418.0	15.4
50°-60°	393.4	14.5
60°-70°	326.5	12.0
70°-80°	229.1	8.4
80°-90°	129.2	4.8
90°-100°	76.9	2.8
100°-110°	56.9	2.1
110°-120°	38.2	1.4
120°-130°	21.5	0.8
130°-140°	9.3	0.3
140°-150°	1.8	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	618.5	22.8
0°-40°	1013.9	37.3
0°-60°	1825.4	67.2
0°-90°	2510.2	92.5
90°-120°	172.1	6.3
90°-150°	204.7	7.5
90°-180°	205.0	7.6
0°-180°	2714.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	796	796	796	796	796	
5°	797	794	788	795	794	76
15°	764	765	762	770	770	215
25°	699	704	707	717	718	322
35°	612	622	631	644	646	383
45°	510	527	544	559	564	394
55°	400	418	445	463	468	356
65°	276	305	335	358	365	274
75°	153	186	224	249	257	163
85°	47	85	125	152	160	49
90°	14	50	88	114	121	10
95°	12	41	78	102	110	9
105°	8	26	59	81	88	9
115°	5	13	42	62	68	6
125°	4	3	25	42	47	3
135°	2	2	8	22	28	2
145°	1	0	0	5	9	1
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	796.3	796.3	796.3	796.3	796.3
2.5°	799.9	797.2	790.1	796.3	795.4
5°	797.2	794.5	788.3	795.4	794.5
7.5°	791.8	790.1	784.7	792.7	791.8
10°	784.7	783.8	779.4	787.4	786.5
12.5°	774.9	774.9	772.2	779.4	779.4
15°	764.2	765.1	762.4	770.4	769.5
17.5°	749.9	752.6	751.7	759.7	758.8
20°	734.8	737.4	738.3	747.3	747.3
22.5°	717.8	721.4	723.2	732.1	733.9
25°	699.1	704.5	707.1	716.9	717.8
27.5°	678.6	686.6	690.2	699.1	700.0
30°	658.1	665.2	671.5	681.3	683.0
32.5°	635.8	644.7	651.8	663.4	665.2
35°	611.7	622.4	631.3	643.8	646.5
37.5°	587.6	600.1	610.8	623.3	626.0
40°	564.5	576.0	588.5	601.9	605.5
42.5°	537.7	551.1	566.2	581.4	584.1
45°	510.1	527.0	543.9	559.1	563.6
47.5°	484.2	501.1	520.8	535.9	541.3
50°	455.7	475.3	494.9	512.7	518.1
52.5°	427.1	446.7	469.9	487.8	493.1
55°	399.5	418.2	445.0	462.8	468.1
57.5°	368.3	391.5	417.3	438.7	443.2
60°	338.0	361.1	390.6	411.1	418.2
62.5°	308.5	334.4	363.8	384.3	391.5
65°	276.4	305.0	335.3	357.6	364.7
67.5°	246.1	276.4	308.5	330.8	338.0
70°	214.9	245.2	279.1	303.2	309.4
72.5°	184.6	215.8	252.4	275.5	282.7
75°	153.4	186.4	223.8	248.8	256.8
77.5°	123.9	158.7	198.0	222.9	231.8
80°	97.2	132.9	172.1	198.9	206.0
82.5°	70.4	107.9	147.1	174.8	182.8
85°	47.3	84.7	124.8	151.6	160.5
87.5°	29.4	66.0	105.2	131.1	139.1
90°	14.3	49.9	88.3	114.1	121.3
92.5°	13.4	44.6	82.9	107.9	115.0
95°	11.6	41.0	77.6	101.7	109.7
97.5°	10.7	36.6	73.1	96.3	104.3
100°	9.8	33.0	67.8	91.8	98.1
102.5°	9.8	29.4	63.3	86.5	93.6
105°	8.0	25.9	58.9	81.1	88.3
107.5°	8.0	23.2	54.4	76.7	82.9
110°	7.1	19.6	50.8	71.3	78.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	6.2	16.9	46.4	66.0	73.1
115°	5.4	13.4	41.9	61.5	67.8
117.5°	5.4	10.7	37.5	56.2	63.3
120°	4.5	7.1	33.0	50.8	58.0
122.5°	4.5	4.5	28.5	46.4	52.6
125°	3.6	2.7	25.0	41.9	47.3
127.5°	3.6	2.7	20.5	36.6	42.8
130°	2.7	1.8	16.1	32.1	37.5
132.5°	2.7	1.8	12.5	27.6	33.0
135°	1.8	1.8	8.0	22.3	27.6
137.5°	1.8	0.9	4.5	17.8	22.3
140°	1.8	0.9	1.8	13.4	17.8
142.5°	0.9	0.9	0.0	9.8	13.4
145°	0.9	0.0	0.0	5.4	8.9
147.5°	0.9	0.0	0.0	0.9	4.5
150°	0.9	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)