

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: P231755

Luminaire Tested: **S124-RDR-2-27-X-0048-1-U-DD-1-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231755
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33917)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124-RDR-2-27-X-0048-1-U-DD-1-W
Description: DEFINE 4 LED LINEAR REGRESSED DIRECT RECESSED LED LUMINAIRE WITH FLUSH LENS.
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3138.9 lumens
Efficiency: N/A
Efficacy: 73.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.1 / 1.25
Luminous Opening: Rectangular (W 0.31' x L: 3.92' x H: 0')
CIE Type: Direct

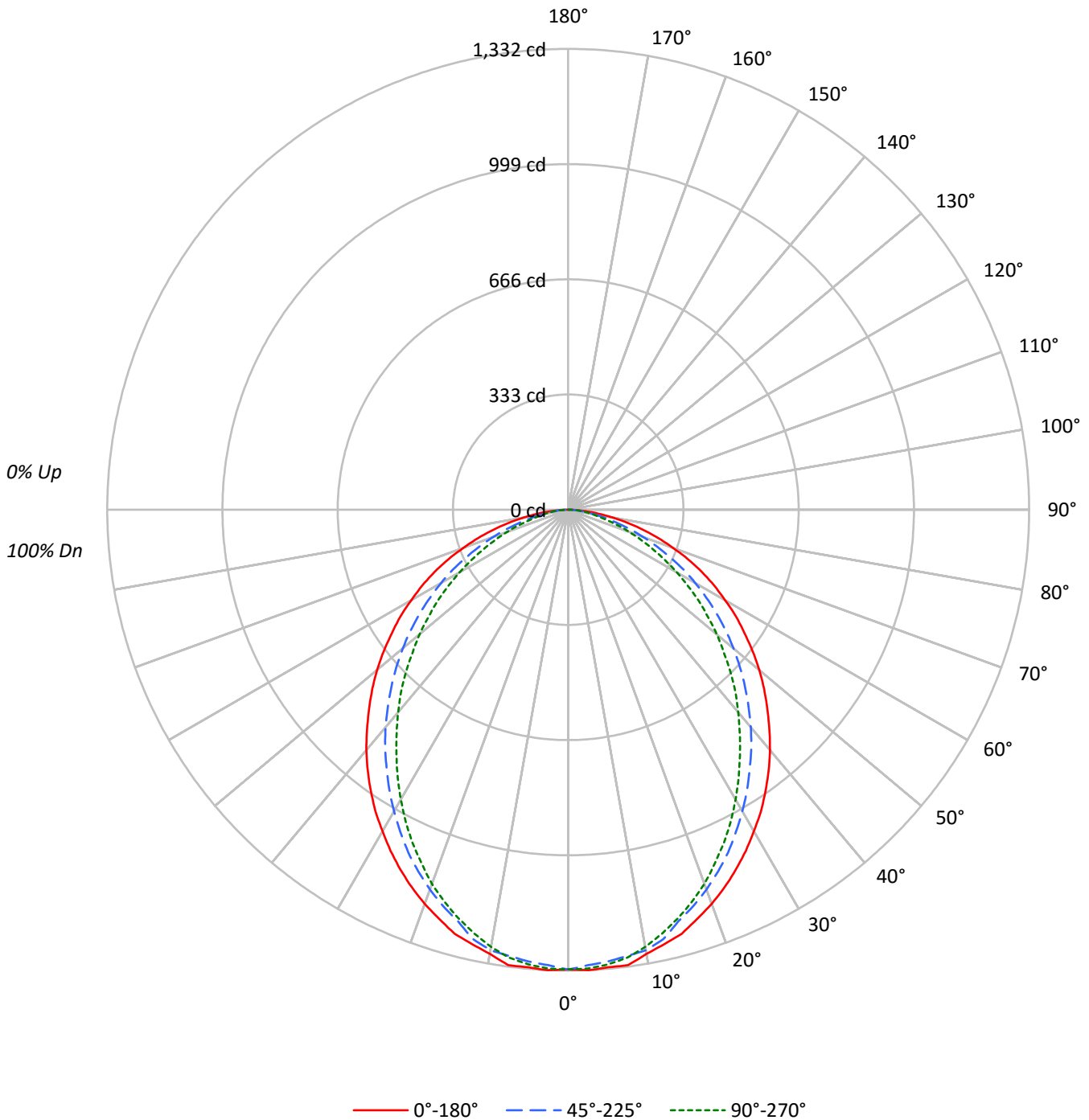
Input Watts (W): 42.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87	85
2	100	92	86	80	98	90	85	79	87	82	78	84	80	76	81	77	74	72
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	62
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	44	55	48	43	53	47	43	41
7	67	54	45	39	65	53	45	39	51	44	39	50	43	39	49	43	38	36
8	62	49	41	35	61	49	41	35	47	40	35	46	39	35	45	39	35	33
9	58	45	37	32	57	45	37	32	44	37	32	43	36	31	41	36	31	30
10	55	42	34	29	54	41	34	29	40	34	29	39	33	29	39	33	29	27

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11907	11907	11907
5°	11942	11790	11866
10°	11861	11763	11676
15°	11770	11424	11346
20°	11560	11136	10976
25°	11344	10810	10513
30°	11101	10417	10007
35°	10869	10001	9463
40°	10611	9599	8938
45°	10308	9151	8404
50°	10049	8693	7822
55°	9705	8183	7208
60°	9387	7600	6480
65°	9043	6853	5731
70°	8436	6044	4910
75°	7738	4992	3909
80°	6698	3844	3473
85°	5439	3331	3084



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.3	4.0
10°-20°	350.0	11.1
20°-30°	506.8	16.1
30°-40°	577.1	18.4
40°-50°	563.2	17.9
50°-60°	475.5	15.1
60°-70°	332.4	10.6
70°-80°	167.2	5.3
80°-90°	41.3	1.3
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°	982.1	31.3
0°-40°	1559.2	49.7
0°-60°	2598.0	82.8
0°-90°	3138.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3138.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1329	1329	1329	1329	1329	
5°	1328	1323	1311	1322	1319	126
15°	1269	1259	1232	1232	1223	357
25°	1147	1131	1093	1075	1063	528
35°	994	965	914	881	865	622
45°	813	782	722	679	663	628
55°	621	585	524	477	461	557
65°	426	384	323	285	270	421
75°	224	189	144	120	113	237
85°	53	35	32	31	30	62
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1328.8	1328.8	1328.8	1328.8	1328.8
2.5°	1332.4	1330.0	1318.0	1330.0	1327.6
5°	1327.6	1322.8	1310.8	1321.6	1319.2
7.5°	1327.6	1321.6	1301.2	1308.4	1306.0
10°	1303.6	1307.2	1292.8	1285.6	1283.2
12.5°	1285.6	1279.6	1271.2	1260.4	1254.3
15°	1268.8	1259.2	1231.5	1231.5	1223.1
17.5°	1239.9	1232.7	1201.5	1201.5	1188.3
20°	1212.3	1201.5	1167.8	1167.8	1151.0
22.5°	1181.1	1169.0	1131.8	1128.2	1106.6
25°	1147.4	1130.6	1093.4	1075.3	1063.3
27.5°	1111.4	1090.9	1050.1	1027.3	1016.5
30°	1072.9	1051.3	1006.8	979.2	967.2
32.5°	1035.7	1010.4	961.2	931.2	916.7
35°	993.6	964.8	914.3	880.7	865.1
37.5°	951.6	922.7	868.7	830.2	814.6
40°	907.1	874.7	820.6	781.0	764.1
42.5°	860.3	827.8	771.4	729.3	714.9
45°	813.4	782.2	722.1	678.8	663.2
47.5°	767.7	732.9	672.8	627.2	609.2
50°	720.9	684.8	623.6	577.9	561.1
52.5°	671.6	635.6	574.3	527.5	508.2
55°	621.2	585.1	523.8	477.0	461.4
57.5°	575.5	534.7	473.4	427.7	410.9
60°	523.8	483.0	424.1	378.5	361.6
62.5°	475.8	433.7	376.1	331.6	314.8
65°	426.5	384.5	323.2	284.8	270.3
67.5°	374.9	335.2	276.3	240.3	227.1
70°	322.0	283.6	230.7	198.2	187.4
72.5°	272.7	235.5	186.2	157.4	150.2
75°	223.5	188.6	144.2	120.1	112.9
77.5°	175.4	144.2	106.9	88.9	86.5
80°	129.8	103.3	74.5	67.3	67.3
82.5°	88.9	64.9	51.7	49.3	49.3
85°	52.9	34.8	32.4	31.2	30.0
87.5°	22.8	15.6	14.4	13.2	13.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)