

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: P231682

Luminaire Tested: **S123-DR-1-40-X-0048-1-U-DD-1-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231682
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29683)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123-DR-1-40-X-0048-1-U-DD-1-W
Description: DEFINE 3 LED LINEAR DIRECT RECESSED LED LUMINAIRE WITH FLUSH LENS.
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

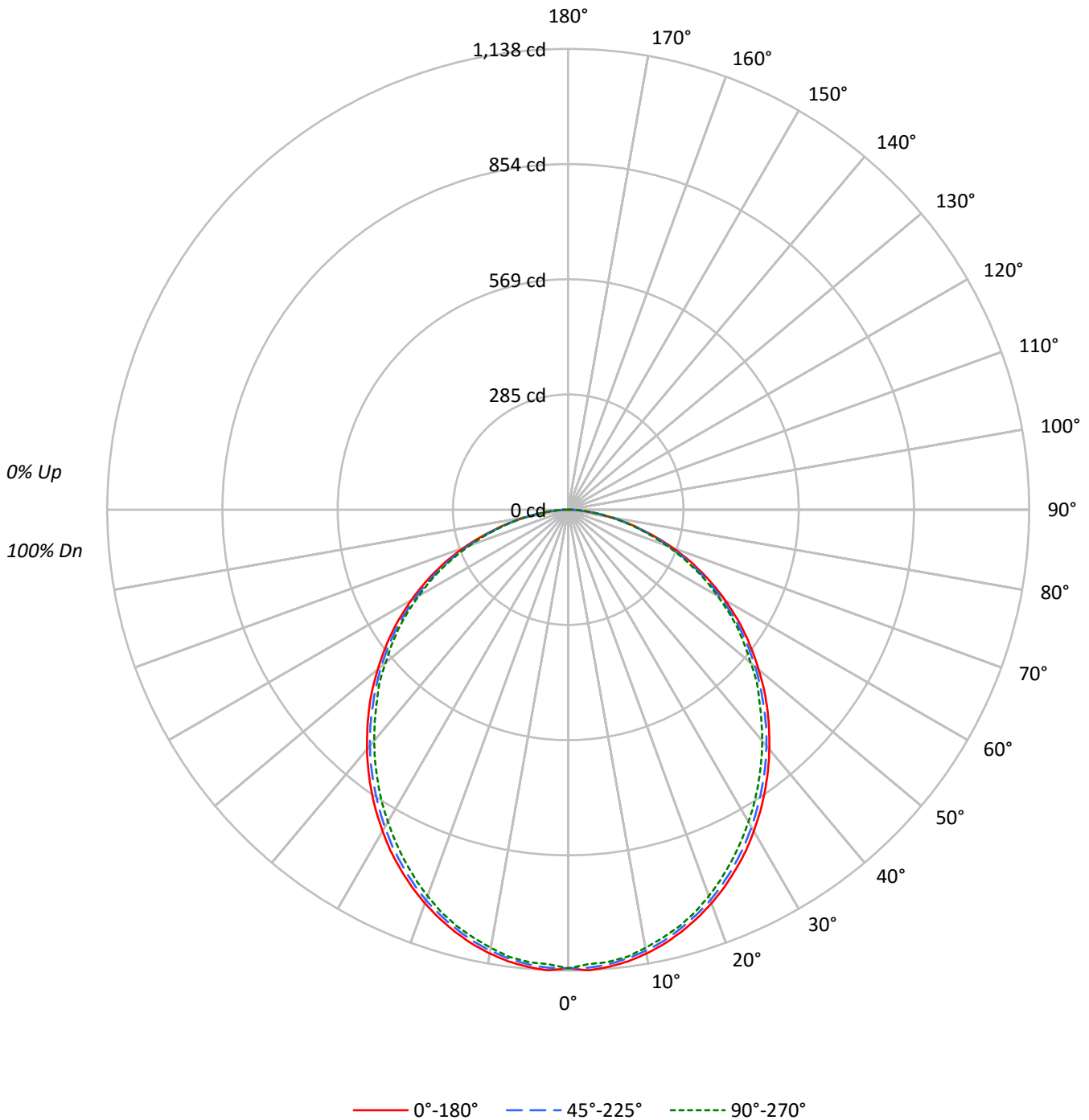
Lumens per Lamp: N/A
Luminaire Lumens: 2954.9 lumens
Efficiency: N/A
Efficacy: 105.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31
Luminous Opening: Rectangular (W 0.22' x L: 3.92' x H: 0')
CIE Type: Direct

Input Watts (W): 27.9
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	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	59
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	57	53	51
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	44
6	71	57	49	42	69	56	48	42	55	47	42	53	46	41	51	45	41	39
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	48	39	33	59	47	39	33	46	38	33	44	38	33	43	37	33	31
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	28
10	54	40	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13937	13937	13937
5°	14002	13927	13852
10°	13909	13821	13731
15°	13753	13649	13558
20°	13549	13443	13296
25°	13301	13163	12982
30°	13022	12863	12645
35°	12726	12542	12312
40°	12413	12233	11971
45°	12098	11869	11620
50°	11748	11534	11260
55°	11415	11175	10956
60°	11013	10737	10461
65°	10536	10210	10003
70°	9867	9536	9316
75°	8821	8626	8431
80°	7513	7513	7513
85°	6044	6326	6326



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.7	3.6
10°-20°	301.3	10.2
20°-30°	444.8	15.1
30°-40°	520.2	17.6
40°-50°	525.0	17.8
50°-60°	464.5	15.7
60°-70°	347.5	11.8
70°-80°	193.0	6.5
80°-90°	51.9	1.8
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°	852.8	28.9
0°-40°	1373.1	46.5
0°-60°	2362.5	80.0
0°-90°	2954.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2954.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1132	1132	1132	1132	1132	
5°	1133	1122	1127	1123	1121	108
15°	1079	1067	1071	1067	1064	304
25°	980	967	969	959	956	451
35°	847	836	835	822	820	530
45°	695	686	682	671	668	536
55°	532	527	521	511	511	475
65°	362	357	351	346	344	358
75°	186	184	181	178	177	197
85°	43	45	45	44	45	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1132.4	1132.4	1132.4	1132.4	1132.4
2.5°	1138.5	1126.3	1132.4	1129.3	1123.2
5°	1133.4	1122.2	1127.3	1123.2	1121.2
7.5°	1125.2	1113.0	1118.1	1114.0	1114.0
10°	1113.0	1100.8	1105.9	1100.8	1098.7
12.5°	1097.7	1085.5	1090.6	1084.5	1082.4
15°	1079.4	1067.1	1071.2	1067.1	1064.1
17.5°	1058.0	1046.8	1049.8	1044.7	1041.7
20°	1034.5	1022.3	1026.4	1018.2	1015.2
22.5°	1008.0	995.8	998.8	988.7	986.6
25°	979.5	967.3	969.3	959.1	956.0
27.5°	949.9	936.7	938.7	927.5	923.4
30°	916.3	904.1	905.1	893.9	889.8
32.5°	882.7	870.4	870.4	858.2	856.2
35°	847.0	835.8	834.8	822.5	819.5
37.5°	810.3	800.1	799.1	785.8	782.8
40°	772.6	763.4	761.4	748.1	745.1
42.5°	733.8	724.7	722.6	709.4	706.3
45°	695.1	685.9	681.9	670.7	667.6
47.5°	655.4	648.2	642.1	631.9	631.9
50°	613.6	607.5	602.4	592.2	588.1
52.5°	572.8	567.7	561.6	552.4	549.4
55°	532.0	526.9	520.8	510.6	510.6
57.5°	490.3	484.1	478.0	470.9	468.8
60°	447.4	442.3	436.2	429.1	425.0
62.5°	404.6	400.6	394.4	388.3	386.3
65°	361.8	356.7	350.6	345.5	343.5
67.5°	319.0	312.9	307.8	302.7	301.7
70°	274.2	269.1	265.0	258.9	258.9
72.5°	228.3	224.2	222.2	219.1	218.1
75°	185.5	183.5	181.4	178.4	177.3
77.5°	144.7	144.7	142.7	141.7	141.7
80°	106.0	108.0	106.0	106.0	106.0
82.5°	71.3	72.4	73.4	73.4	72.4
85°	42.8	44.8	44.8	43.8	44.8
87.5°	20.4	20.4	20.4	20.4	20.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)