

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: P231685

Luminaire Tested: **S123-DR-2-35-X-0048-1-U-DD-1-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231685
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-2-35-X-0048-1-U-DD-1-W
Description: DEFINE 3 LED LINEAR DIRECT RECESSED LED LUMINAIRE WITH FLUSH LENS.
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

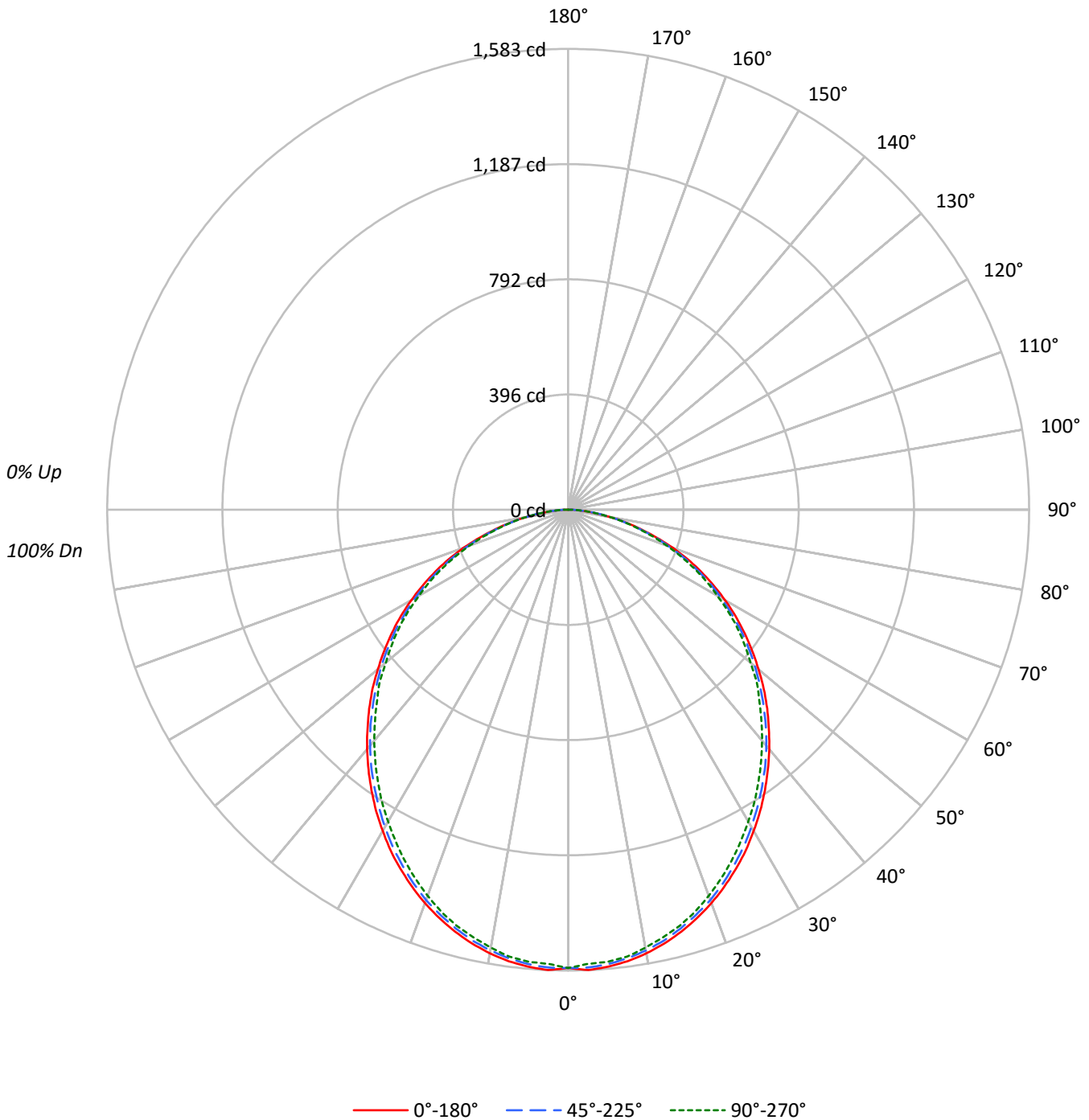
Lumens per Lamp: N/A
Luminaire Lumens: 4108.1 lumens
Efficiency: N/A
Efficacy: 96.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31
Luminous Opening: Rectangular (W 0.22' x L: 3.92' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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°	19375	19375	19375
5°	19467	19362	19257
10°	19338	19213	19089
15°	19120	18976	18850
20°	18838	18688	18484
25°	18491	18300	18050
30°	18104	17882	17579
35°	17691	17436	17117
40°	17256	17006	16641
45°	16820	16500	16154
50°	16332	16033	15654
55°	15872	15537	15232
60°	15313	14929	14545
65°	14648	14194	13905
70°	13717	13257	12951
75°	12264	11993	11726
80°	10447	10447	10447
85°	8402	8797	8797



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	148.3	3.6
10°-20°	418.9	10.2
20°-30°	618.4	15.1
30°-40°	723.3	17.6
40°-50°	729.8	17.8
50°-60°	645.7	15.7
60°-70°	483.2	11.8
70°-80°	268.4	6.5
80°-90°	72.1	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°	1185.6	28.9
0°-40°	1908.9	46.5
0°-60°	3284.5	80.0
0°-90°	4108.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4108.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1574	1574	1574	1574	1574	
5°	1576	1560	1567	1562	1559	149
15°	1501	1484	1489	1484	1479	423
25°	1362	1345	1348	1333	1329	627
35°	1178	1162	1160	1144	1139	736
45°	966	954	948	932	928	745
55°	740	733	724	710	710	661
65°	503	496	487	480	478	497
75°	258	255	252	248	247	274
85°	60	62	62	61	62	71
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1574.3	1574.3	1574.3	1574.3	1574.3
2.5°	1582.8	1565.8	1574.3	1570.0	1561.5
5°	1575.7	1560.1	1567.2	1561.5	1558.7
7.5°	1564.4	1547.4	1554.5	1548.8	1548.8
10°	1547.4	1530.4	1537.4	1530.4	1527.5
12.5°	1526.1	1509.1	1516.2	1507.7	1504.9
15°	1500.6	1483.6	1489.3	1483.6	1479.4
17.5°	1470.9	1455.3	1459.5	1452.4	1448.2
20°	1438.3	1421.3	1426.9	1415.6	1411.3
22.5°	1401.4	1384.4	1388.7	1374.5	1371.7
25°	1361.7	1344.7	1347.6	1333.4	1329.2
27.5°	1320.6	1302.2	1305.1	1289.5	1283.8
30°	1273.9	1256.9	1258.3	1242.7	1237.0
32.5°	1227.1	1210.1	1210.1	1193.1	1190.3
35°	1177.5	1161.9	1160.5	1143.5	1139.3
37.5°	1126.5	1112.3	1110.9	1092.5	1088.3
40°	1074.1	1061.3	1058.5	1040.1	1035.8
42.5°	1020.2	1007.5	1004.7	986.2	982.0
45°	966.4	953.6	948.0	932.4	928.1
47.5°	911.1	901.2	892.7	878.5	878.5
50°	853.0	844.5	837.4	823.3	817.6
52.5°	796.4	789.3	780.8	768.0	763.8
55°	739.7	732.6	724.1	709.9	709.9
57.5°	681.6	673.1	664.6	654.7	651.8
60°	622.1	615.0	606.5	596.6	590.9
62.5°	562.6	556.9	548.4	539.9	537.0
65°	503.0	496.0	487.4	480.4	477.5
67.5°	443.5	435.0	427.9	420.9	419.4
70°	381.2	374.1	368.4	359.9	359.9
72.5°	317.4	311.7	308.9	304.7	303.2
75°	257.9	255.1	252.2	248.0	246.6
77.5°	201.2	201.2	198.4	197.0	197.0
80°	147.4	150.2	147.4	147.4	147.4
82.5°	99.2	100.6	102.0	102.0	100.6
85°	59.5	62.3	62.3	60.9	62.3
87.5°	28.3	28.3	28.3	28.3	28.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)