

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: P231718

Luminaire Tested: **S121-RDR-1-40-X-0048-1-U-DD-1-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231718
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33908)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S121-RDR-1-40-X-0048-1-U-DD-1-W
Description: DEFINE 1 LED LINEAR REGRESSED 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: 2185.4 lumens
Efficiency: N/A
Efficacy: 78.3 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 0.93 / 1.1
Luminous Opening: Rectangular (W 0.1' x L: 3.92' x H: 0')
CIE Type: Direct

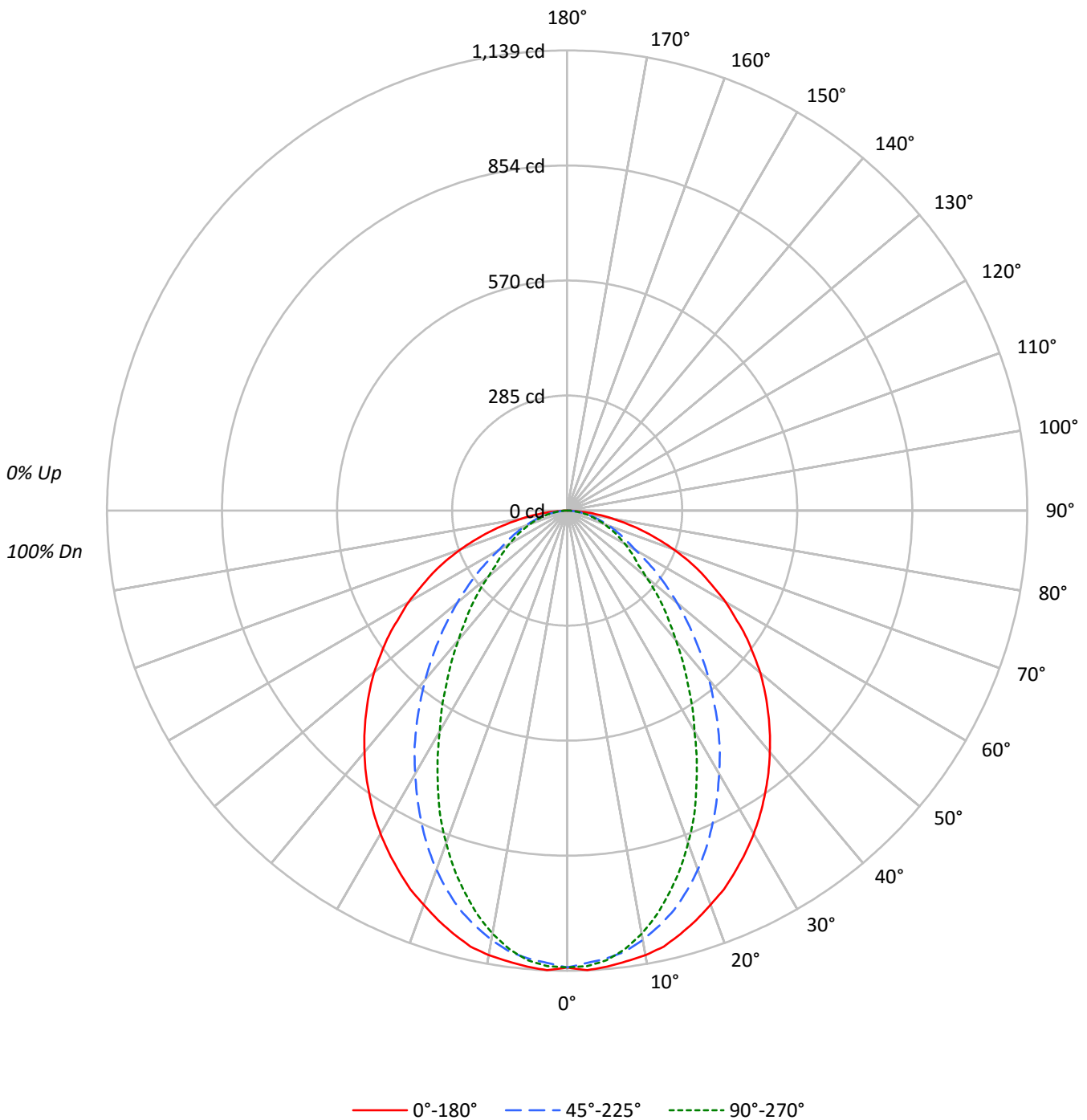
Input Watts (W): 27.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88					86				
2	101	94	88	83	99	92	86	82	89	84	80	85	81	78	82	79	76					74				
3	93	84	76	70	91	82	75	70	79	73	69	77	72	67	74	70	66					64				
4	86	75	67	61	84	74	66	61	71	65	60	69	64	59	67	62	58					56				
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52					50				
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46					44				
7	69	57	48	43	67	56	48	42	54	47	42	53	47	42	52	46	42					40				
8	65	52	44	39	63	51	44	38	50	43	38	49	43	38	48	42	38					36				
9	61	48	40	35	59	47	40	35	46	40	35	45	39	35	44	39	35					33				
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	41	36	32					30				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	31614	31614	31614
5°	31800	31233	31359
10°	31721	30640	30197
15°	31401	29621	28324
20°	30879	28148	26051
25°	30394	26319	23349
30°	29819	24289	20351
35°	29157	22201	17730
40°	28481	19941	15284
45°	27799	17661	13281
50°	27123	15436	11104
55°	26253	13263	9934
60°	25357	10892	9204
65°	24291	9850	8593
70°	22880	9057	7962
75°	20923	8220	7259
80°	18209	7213	6665
85°	14371	6095	5742



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.0	4.8
10°-20°	289.0	13.2
20°-30°	396.7	18.2
30°-40°	417.7	19.1
40°-50°	372.1	17.0
50°-60°	286.0	13.1
60°-70°	191.5	8.8
70°-80°	100.1	4.6
80°-90°	26.3	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°	791.7	36.2
0°-40°	1209.4	55.3
0°-60°	1867.5	85.5
0°-90°	2185.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2185.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1131	1131	1131	1131	1131	
5°	1133	1126	1113	1121	1117	108
15°	1085	1070	1023	998	979	306
25°	985	944	853	788	757	454
35°	854	784	650	553	520	535
45°	703	604	447	359	336	543
55°	539	420	272	210	204	481
65°	367	241	149	133	130	363
75°	194	98	76	69	67	205
85°	45	21	19	18	18	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1130.8	1130.8	1130.8	1130.8	1130.8
2.5°	1138.7	1132.0	1120.8	1130.8	1128.6
5°	1133.1	1126.4	1112.9	1120.8	1117.4
7.5°	1125.3	1116.3	1100.6	1102.9	1095.0
10°	1117.4	1105.1	1079.3	1073.7	1063.7
12.5°	1105.1	1091.7	1052.5	1036.8	1024.5
15°	1084.9	1070.4	1023.4	997.6	978.6
17.5°	1062.6	1040.2	986.4	950.6	930.4
20°	1037.9	1011.0	946.1	900.2	875.6
22.5°	1014.4	978.6	901.3	846.5	820.7
25°	985.3	943.9	853.2	788.2	756.9
27.5°	955.1	904.7	802.8	730.0	694.2
30°	923.7	865.5	752.4	668.4	630.4
32.5°	890.1	824.1	703.1	610.2	576.6
35°	854.3	783.8	650.5	553.1	519.5
37.5°	818.5	737.9	596.8	499.4	469.1
40°	780.4	694.2	546.4	449.0	418.8
42.5°	742.3	648.3	494.9	403.1	375.1
45°	703.1	603.5	446.7	359.4	335.9
47.5°	664.0	557.6	399.7	318.0	295.6
50°	623.6	511.7	354.9	278.8	255.3
52.5°	580.0	465.8	312.4	239.6	222.8
55°	538.6	419.9	272.1	210.5	203.8
57.5°	492.6	374.0	232.9	190.3	183.6
60°	453.5	328.1	194.8	171.3	164.6
62.5°	407.6	283.3	170.2	152.3	146.7
65°	367.2	240.7	148.9	133.2	129.9
67.5°	324.7	199.3	128.8	116.4	112.0
70°	279.9	160.1	110.8	99.6	97.4
72.5°	236.2	124.3	91.8	84.0	82.9
75°	193.7	98.5	76.1	69.4	67.2
77.5°	152.3	75.0	60.5	56.0	54.9
80°	113.1	54.9	44.8	42.5	41.4
82.5°	77.3	36.9	31.4	29.1	29.1
85°	44.8	21.3	19.0	17.9	17.9
87.5°	16.8	9.0	7.8	7.8	7.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)